### **ENHANCING EFL STUDENTS' MOTIVATION THROUGH**

### WEB PUBLISHING

Sorachai Chavangklang

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts in English Language Studies Suranaree University of Technology

Academic Year 2006

# การสร้างแรงจูงใจนักศึกษาที่ศึกษาภาษาอังกฤษเป็นภาษาต่างประเทศ ผ่านการเขียนเพื่อลงพิมพ์ในเว็บไซต์

นายสรชัย ชะวางกลาง

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต สาขาภาษาอังกฤษศึกษา มหาวิทยาลัยเทคโนโลยีสุรนารี ปีการศึกษา 2549

# ENHANCING EFL STUDENTS' MOTIVATION THROUGH WEB PUBLISHING

Suranaree University of Technology has approved this thesis submitted in partial fulfillment of the requirements for a Master's Degree.

Thesis Examining Committee

(Dr. Peerasak Siriyothin)

Chairperson

(Dr. Jitpanat Suwanthep)

Member (Thesis Advisor)

(Dr. Sanooch Segkhoontod)

Member

(Dr. Suksan Suppasetseree)

Member

(Assoc. Prof. Dr. Saowanee Rattanaphani)(Assoc. Prof. Dr. Prapawadee Suebsonthi)

สรชัย ชะวางกลาง : การสร้างแรงจูงใจนักศึกษาที่ศึกษาภาษาอังกฤษเป็นภาษาต่างประเทศ ผ่านการเขียนเพื่อลงพิมพ์ในเว็บไซต์ (ENHANCING EFL STUDENTS' MOTIVATION THROUGH WEB PUBLISHING) อาจารย์ที่ปรึกษา : อาจารย์ คร. จิตพนัส สุวรรณเทพ, 130 หน้า

จุดประสงก์ของการศึกษาครั้งนี้ คือ 1) เพื่อศึกษาว่าการเขียนเพื่อลงพิมพ์ในเว็บไซต์มีผล ต่อการสร้างแรงจูงใจในการเขียนของนักศึกษาที่ศึกษาภาษาอังกฤษเป็นภาษาต่างประเทศหรือไม่ และ 2) เพื่อศึกษาว่าการเขียนเพื่อลงพิมพ์ในเว็บไซต์มีผลต่อการสร้างแรงจูงใจในการเขียนของ นักศึกษาที่ศึกษาภาษาอังกฤษเป็นภาษาต่างประเทศอย่างไร เมื่อเปรียบเทียบตามกลุ่มสาขาวิชา เพศ และความสามารถด้านภาษาอังกฤษเป็นภาษาต่างประเทศอย่างไร เมื่อเปรียบเทียบตามกลุ่มสาขาวิชา เพศ และความสามารถด้านภาษาอังกฤษของกลุ่มตัวอย่าง กลุ่มตัวอย่างคือ นักศึกษาปี 1 ของวิทยาลัย แห่งหนึ่งในภาคตะวันออกเฉียงเหนือ จำนวน 239 คน ที่ลงทะเบียนเรียนรายวิชาภาษาอังกฤษ 1 ภาคเรียนที่ 1 ปีการศึกษา 2548 ในการเรียนรายวิชาภาษาอังกฤษ 1 นักศึกษากลุ่มตัวอย่างเขียน เรียงความ 2 เรื่อง โดยมีหนึ่งเรื่องนำไปลงพิมพ์ในเว็บไซต์ของวิทยาลัย และอีกเรื่องไม่ได้ลงพิมพ์ ในเว็บไซต์ ผลการศึกษาพบว่านักศึกษาเขียนเรียงความทั้งสองเรื่องไม่แตกต่างกันทางสถิติทั้งด้าน ความยาวของเรื่อง และคะแนนที่ได้รับ อย่างไรก็ตาม พบว่าค่าเฉลี่ยของจำนวนร่างมีความแตกต่าง ทางสถิติอย่างเห็นได้ชัด ในเรียงความที่ได้ลงพิมพ์ เมื่อเปรียบเทียบกับเรียงความที่ไม่ได้ลงพิมพ์ ใน กลุ่มนักศึกษาหญิงที่มีระดับความสามารถภาษาอังกฤษด่ำ นอกจากนี้ยังพบว่าเรียงความที่ได้ลง พิมพ์มีก่าเฉลี่ยทางสถิติของจำนวนร่าง ความยาวของเรียงกวาม และคะแนนที่ได้รับ สูงกว่า เรียงความที่ไม่ได้ลงพิมพ์ในกลุ่มตัวอย่างที่เป็นผู้หญิง กลุ่มตัวอย่างที่มีความสามารถด้าน ภาษาอังกฤษต่ำ และกลุ่มตัวอย่างที่เรียนในกลุ่มสาขาวิชาที่เกี่ยวข้องกับคอมพิวเตอร์

ลายมือชื่อนักศึกษา
ลายมือชื่ออาจารย์ที่ปรึกษา
ลายมือชื่ออาจารย์ที่ปรึกษาร่วม

สาขาวิชาภาษาอังกฤษ ปีการศึกษา 2549

# SORACHAI CHAVANGKLANG : ENHANCING EFL STUDENTS' MOTIVATION THROUGH WEB PUBLISHING. THESIS ADVISOR : JITPANAT SUWANTHEP, Ph.D. 130 PP.

# WEB PUBLISHING / MOTIVATION / FIELD OF STUDY / GENDER/ ENGLISH LANGUAGE ABILITY / EFL STUDENTS

The purposes of the present study were 1) to investigate whether Web publishing enhances EFL students to write; 2) and to determine how Web publishing affects motivation to write in students with different fields of study, gender and levels of English language ability. The participants were 239 first year students who enrolled English 1 in the first semester of academic year 2005 at a vocational college in northeastern Thailand. Participants wrote two essays for their English 1 course, one was to be published on a website; the other was not for the Web publishing purpose. Result shows no significant differences in students' motivation as determined by the length and the scores of published essays and unpublished essays. However, mean numbers of draft were found to be significantly different at 0.05 level between published and unpublished essays written by low English language ability female participants. It has also been found that in many occasions published essays gain better results over the unpublished ones, mostly from the low English language ability group, especially female. Moreover, some positive results for published essays also found among students in the computer-related group.

School of English Academic Year 2006 
 Student's Signature

Advisor's Signature

Co-advisor's Signature

#### ACKNOWLEDGEMENTS

I would like to express my deep gratitude and appreciation to a number of people who have contributed to the completion of my study at the School of English, Suranaree University of Technology.

I sincerely acknowledge my gratitude to Dr. Jitpanat Suwanthep and Dr. Sanooch Segkhoontod who have provided great supports as thesis supervisors and course instructors. My thesis would not have been completed without their valuable advices, suggestions, comments, and feedbacks. I would also like to thank Assoc. Prof. Dr. Thai Tipsuwannakul for his kind advice with the statistics, and Mr. Derek Edward Taylor for proof-reading the thesis.

I would like to thank personnel at the School of English for many helps throughout my course of study. My grateful thanks go to Suranaree University of Technology for financial support in the research study. Many thanks go to Pornsawan Manorat, Anchalee Chaiwichian, and other colleagues during the years of study.

A special thank is given to Dr. Saran Intakul, who has given me a great study opportunity and valuable supports for my study while working at Chanapollakan Institute of Technology (C-TECH) and Nakhonratchasima College.

My dedication is to my lovely wife, Pichayapa, my son Shine, my father Choom, my mother Saibua, and my sisters, who have given me great encouragement. Finally, I thank all people, whose names are not mentioned here, for every possible contribution to the achievement in my study.

### **TABLE OF CONTENTS**

Page	
J)I	ABSTRACT (THA
GLISH)II	ABSTRACT (ENC
EMENTSIII	ACKNOWLEDGE
'ENTSIV	TABLE OF CONT
VII	LIST OF TABLES
sXI	LIST OF FIGURE
	CHAPTER
DDUCTION1	1. INTRO
Rationale1	1.1
Purpose of the Study4	1.2
Research Questions	1.3
Hypotheses	1.4
Significance of this Study5	1.5
Outline of this Research Paper6	1.6
ATURE REVIEW	2. LITER
Web Publishing8	2.1
Motivation16	2.2
The Writing Process	2.3
Measurements of Motivation in Writing	2.4
Summary	2.5

# TABLE OF CONTENTS (Continued)

		Page
3.	METH	<b>ODOLOGY</b>
	3.1	Definition of Key Terms
	3.2	Background to the Study Site and the Participants
	3.3	Research Design and Subjects Treatment
	3.4	Data Collection Instruments45
	3.5	Statistical Analysis of Data48
	3.6	Conclusion
<b>4.</b> ]	RESUI	<b>LTS OF THE STUDY</b>
	4.1	Overall Comparison
	4.2	Comparisons between Published and Unpublished Essays55
	4.3	Comparisons among Participants90
	4.4	Results from Interview96
	4.5	Conclusion
5.	DISCU	SSION AND CONCLUSION
	5.1	Summary of the Results100
	5.2	Discussions103
	5.3	Remarks of the Results106
	5.4	Implications and Recommendations108
	5.5	Conclusion
REFEREN	CES	
APPENDIC	CES	
CURRICU	LUM	/ <b>ITAE</b> 130

### LIST OF TABLES

Та	ble Page	
3.1	Numbers and percentages of participants arranged according to major	
	fields of study33	
3.2	2 Numbers of students in each level of English language ability	
3.3	Numbers and percentages of participants in each gender group	
3.4	Numbers and percentages of participants in each fields of study	
4.1	Total means and standard deviations of numbers of draft, length, and	
	scores of published and unpublished essays53	
4.2	2 T-test for significant difference between Web published and unpublished	
	essays	
4.3	Comparisons between numbers of draft of published essays and those of	
	unpublished essays written by participants in different fields of study	
4.4	Comparisons between numbers of draft of published essays and those of	
	unpublished essays written by participants in different gender57	
4.5	Comparisons between numbers of draft of published essays and those of	
	unpublished essays written by participants in different levels of English	
	language ability	
4.6	6 Comparisons between numbers of draft of published essays and those of	
	unpublished essays written by participants in different fields of study and	
	of different gender	

# LIST OF TABLES (Continued)

Table	Page
4.7	Comparisons between numbers of draft of published essays and those of
	unpublished essays written by participants of different fields of study
	and English language ability61
4.8	Comparisons between of numbers of draft of published essays and those
	of unpublished essays written by participants of different gender and
	English language ability62
4.9	Comparisons between numbers of draft of published essays and those of
	unpublished essays written by participants of different fields of study,
	gender and English language ability63
4.10	Comparisons between length of published essays and that of unpublished
	essays written by participants of different fields of study66
4.11	Comparisons between length of published essays and that of unpublished
	essays written by participants of different gender67
4.12	Comparisons between length of published essays and that of unpublished
	essays written by participants of different English language ability68
4.13	Comparisons between length of published essays and that of unpublished
	essays written by participants of different fields of study and gender69
4.14	Comparisons between length of published essays and that of unpublished
	essays written by participants of different fields of study and English
	language ability71

# LIST OF TABLES (Continued)

Table	Dle Page	
4.15	Comparisons between length of published essays and that of unpublished	
	essays written by participants of different gender and English language	
	ability	
4.16	Comparisons between numbers of word in published essays and in	
	unpublished essays74	
4.17	Comparisons between scores of published essays and those of	
	unpublished essays written by participants of different fields of study79	
4.18	Comparisons between scores of published essays and those of	
	unpublished essays written by participants of different gender80	
4.19	Comparisons between scores of published essays and those of	
	unpublished essays written by participants of different English language	
	ability	
4.20	Comparisons between scores of published essays and those of	
	unpublished essays written by participants of different fields of study	
	and gender	
4.21	Comparisons between scores of published essays and those of	
	unpublished essays written by participants of different fields of study	
	and English language ability83	
4.22	Comparisons between scores of published essays and those of	
	unpublished essays written by participants of different gender and	
	English language ability	

# LIST OF TABLES (Continued)

Table	e P	age
4.23	Comparisons between scores of published essays and unpublished essays	
	written by participants of different fields of study, gender, and English	
	language ability	85
4.24	Summary of comparisons between numbers of draft, length, and score of	
	published and unpublished essays written by various groups of	
	participants	88
4.25	Results of t-test Analysis of mean drafts, length and scores of essays	
	written by students of different fields of study	91
4.26	Results of t-test Analysis of mean numbers of draft, length and scores of	
	essays written by students of different gender	92
4.27	Results of one-way ANOVA analysis of mean drafts, length and scores	
	among groups of different English language ability	93
4.28	Mean differences and p-values numbers of draft and length of	
	unpublished essays among groups of different English language ability	
	revealed by Pos Hoc Test analysis, Scheffe	94

### LIST OF FIGURES

Figure		Page
2.1	Hayes' (1996) model	20
3.1	The Research Design Diagram	38

# CHAPTER 1 INTRODUCTION

This chapter is an introductory chapter. It provides background to the thesis. It consists of sections on rationale of the study, which addresses general information about students' motivation in relation to writing and Web publishing. The section on the purpose of the study sets up two major purposes of the research, followed by research questions, research hypotheses, and significance of the study, respectively. The final section, the outline of the research, provides an overall organization of the thesis.

#### 1.1 Rationale

The emphasis of English as a Second Language (ESL, hereafter) instruction has largely been on the improvement of students' skills in speaking, reading and listening, while writing skills have been often ignored (Edelsky & Smith, 1989). This is partly due to the complexity of the writing process. Bruning and Horn (2000) describe the complex processes of writing that:

In a difficult and complex task like (writing), motivational issues will assume particularly prominent status. Writers need to develop strong beliefs in the relevance and importance of writing and as they grapple with writing's complexities and frustrations, learn to be patient, persistent, and flexible. Although we believe that these beliefs and attitudes ultimately fall clearly within the realm of intrinsic motivation, their development is in the hands of those who set the writing tasks and react to what has been written (Bruning & Horn, 2000, p. 26). The statement clearly points out the importance of motivation to writing. Hawthorne (2005) states that without motivation to write, one is not going to. There has to be a perceived need or desire to write before a writer put themselves through the difficult processes involved.

In the real classroom setting, however, writing teachers have been facing problems of students having low motivation to write. Gebhard (1996) has found this to be problematic in EFL/ESL writing classrooms. This problem, identified by Gebhard as the 'I can't write' problem, is found when students have negative attitudes about writing or lacking confidence in themselves as writers. This problem is the result of students believing that they cannot write. Or having a defeatist's attitude toward writing, they disengage themselves from the writing process. For example, students may say "I really don't like to write. It's boring"; "Writing is so difficult. I always feel my English is terrible. It makes me sad. (Gebhard, 1996)"

Regarding the importance of motivation on students' writing, researchers and teachers of writing are interested in finding how to enhance students' motivation for writing. One way of doing that may be to create conditions required to enhance students' motivation to write. For example, Bruning and Horn (2000) recommend such conditions as nurturing functional beliefs about writing, fostering students' engagement through authentic writing goals and contexts, providing a supportive context for writing, and creating a positive emotional environment to write. Furthermore, teachers can modify learning environment, classroom community, academic activities, learning challenges, and outcomes for learning to be motivating for students (Wright, 2002).

Publishing students' complete piece of writing is one of the methods used to motivate students to write. Publishing students' writing may occur in many forms on many locations, including the Internet. Publishing on the Internet is to publish on the World Wide Web (WWW or Web, hereafter). As the Internet is becoming more and more common in teaching and learning classroom, Web publishing is becoming one of the most attractive sites for students' publication. Plotts (2000) claims that one of the demonstrated successes of the WWW over the past decade is publishing, and publishing opportunities for students are exponentially increasing. Apart from communicating and making their work available on the Internet, the students may use the Web publishing as a motivation tool to improve their work knowing that people outside the classroom may read their paper, and probably make some comments on it. Moreover, many research studies have reported that Web publishing enhances students' motivation because it gives students opportunities to put their work to be viewed by readers/audiences on the Internet (Riley & Linda, 2000; Schofield & Davidson, 2002).

It seems that publishing students' work on the Web may have great benefits to writing classes. In general, Web publishing seems to have effects on enhancing students to write because they can be encouraged to put more attempt to carry out their writing tasks when they know that their works are going to be viewed by web audiences other than their instructor. Nevertheless, there are still some concerns on the effects of Web publishing when using with second language (L2) learners in various settings, as L2 learners have been found to be less motivated with writing (Gebhard, 1996), and the effects are different in many aspects. For example, such questions as 'would Web publishing benefit them?' and 'would it enhance motivation

to write for male students in the same way as females, or for students with different fields of study?' may arise because teachers who desire to use Web publishing as a means to motivate their students may raise questions on its effectiveness.

It comes down to the question that, if the researcher of this study uses Web publishing to motivate students, how would this be done, and for whom would Web publishing be most beneficial. In general, would Web publishing be suitable for students at certain school who are different, for example, in gender, English language ability, or major fields of study.

It is; therefore, worthwhile considering the investigation of the effect of Web publishing on students' motivation. This study aims to find out whether Web publishing has some motivational effects on students during their writing course at a vocational college in northeastern Thailand. Furthermore, students who enroll in English 1 subject vary not only in gender, but also in fields of study and English language ability. For example, some students are in computer-related field, while others are not, while some students have higher English language ability than others. Consequently, it would be expected that these variations in participants' fields of study and English language ability might play different roles in how Web publishing affect students' motivation. Therefore, another purpose of this study is to identify which groups of students are enhanced by Web publishing to be motivated to write, regarding their gender, English language ability, and their major field of study.

#### **1.2 Purposes of the Study**

The purposes of this study are as follows:

1. To investigate whether Web publishing enhances students' motivation to write.

2. To determine how Web publishing affects motivation to write of students with different levels of English language ability, genders and fields of study.

#### **1.3 Research Questions**

In order to achieve the purposes of this study, there are two research questions to be answered:

1. Are there any differences between students' motivation concerning writing for Web publishing and writing without Web publishing?

2. How does Web publishing affect motivation of students with different English language ability, genders, and fields of study?

#### 1.4 Hypotheses

Two null hypotheses are set out in this study.

1. Students' motivation levels concerning writing for Web publishing is higher than those without Web publishing.

2. Web publishing motivates students differently regarding their English language ability, gender and fields of study.

#### 1.5 Significance of this Study

According to the purposes of this research study, this research aims to investigate whether Web publishing has motivational effects on students, if so, to which groups of students. Therefore, the current study would contribute information on students' motivation to the teaching and learning of English concerning Web publishing. Firstly, the study would reveal some result to prove the motivational property of Web publishing to be effective or not effective with the group of students in the study, which may be applied to similar groups of students. Secondly, the study will reveal some insight effects of Web publishing on every group of participants who are different in gender, English language ability, and fields of study. As Web publishing has been expected to have some motivational effects on these groups of students differently, it would be beneficial to know of which group of students are more likely to be influenced by Web publishing. In summary, the results of this study would provide teachers of writing with information that is useful for their class preparation especially when they use Web publishing as a motivation tool for their students. This would enable them to use Web publishing more effectively with suitable group of students.

#### **1.6 Outline of this Research Paper**

This chapter provides general introduction to the study. It begins with the rationale of the study, followed by the purpose of the study, the research questions, hypotheses, and the significance of the study.

After having introduced background for the study in Chapter 1, the researcher presents literature review of the study in Chapter 2. This chapter discusses definitions, theories and practices of motivation and Web publishing in related literature. It also discusses methods of measuring motivation. Chapter 3 describes research methodology. The chapter consists of the sections on background to the setting and participants, research design and subject treatment, data collection instruments, and statistical analysis of the data.

Chapter 4 presents the results of the research. In this chapter, the results of the comparison between Web published and unpublished essays are presented. It consists of the comparisons of means and the tests for differences. There will also be results from the interview.

Chapter 5 provides discussions of the research findings, recommendations for further studies, and concludes the research study.

### **CHAPTER 2**

### **REVIEW OF LITERATURE**

This chapter presents the literature review and related studies. The chapter consists of sections on Web publishing (Section 2.1), which will present definitions, types, and benefits of Web publishing in terms of motivation in general and in writing. The following section (Section 2.2) provides an overview of motivation theory as well as studies on motivation in L2 classroom. Section 2.3 reviews models in writing process in relation to motivation. Finally, Section 2.4 discusses some methods of measuring motivation in writing.

#### 2.1 Web Publishing

Web publishing, or publishing electronic text on the Internet, has been claimed to be one of the most profound changes in classroom writing with its ease and excitement (Karchmer, 2001). As a result, many teachers are interested in finding space in the Internet to show their students' works, and school Internet access increases (National Center for Education Statistics, 2000). The result of this is the increase in audiences for student's work, which extends beyond classroom and school boundaries. It has been growing evidences rom literature that wider groups of audiences have impacts on students in terms of motivation to produce good quality work. Therefore, in this section it is important to investigate Web publishing in more details. Firstly, this section will explore some definitions of Web publishing, which will provide the scope of Web publishing before discussing various types of Web publishing. Then, the section will discuss the benefit of Web publishing in general, followed by the discussion on Web publishing and motivation in L2 writing.

#### 2.1.1 Definitions of Web Publishing

Web publishing has been defined in many different ways according to its features and functions. According to Xitex WebContent M1 (2005), Web publishing is another name for content management, which consists of scheduling content onto the web, searching all page files, infinite undo and backups, and archiving all pages to preserve institutional memory. Documents need not be HTML web pages, but today the majority of documents in a web-based publishing system are in HTML or XML formats.

While the above definition focuses on the content management, the following definition, given by High Tech Dictionary (2007), regards Web publishing as the creation of hypertext. That is, Web publishing is "creating hypertext documents and making them available on the World Wide Web. Hypertext documents can include many different media, and often have text, pictures, animated graphics, sound and movie clips, and interactive forms. Web pages can also contain hyperlinks to other documents, electronic mail links, and search engines."

The definitions given above would be sufficient to provide general scope of Web publishing for the present study. In summary, Web publishing involves the creating of many types of documents that can be placed on the Internet. As there are many types of contents that can be published on the Web, it would be worthwhile to explore some forms of Web publishing that are commonly used in teaching and learning. Types of Web publishing is discussed in the following section.

#### 2.1.2 Types of Web Publishing

Web publishing comes in many forms. For example, Kitao (2002) claims that Web publishing is a kind of Web project that employs creating an English webpage and posting it online for others to access, which comes in three different forms: 1) essay writing; 2) making links; and 3) the combination of both. Each type includes searching information, reading and organizing information, writing up the final products, and illustrating them using photos and pictures.

Other different types of Web publishing have also been described. The following three types of Web publishing have been recognized and discussed by Karchmer (2001). They are: 1) the publication of traditional writing assignment; 2) collaborative writing projects; and 3) multimedia presentations. Publishing of traditional writing assignments involves publishing students' works, which are usually taken place in classrooms, on the Internet. The assignments can be in the form of students' reading logs that students make while they read an assigned reading task. The complete logs traditionally shared and discussed in classroom are posted onto the teacher's website, where other readers can benefit from them. Moreover, the publication can be in the form of student's reflections on observations made during a classroom activity, as well as model writing assignments such as narrative, analytical, argumentative, and creative essays. It can even be art or science projects. If the classroom has a functioning website, or an access to one, and a method of creating web files, publishing traditional writing assignments is the most suitable and easiest way to publish students' work on the Internet. Karchmer (2001) explains another type of Web publishing as coming in the form of collaborative writing project. This type employs the use of electronic communication through the Internet, which is fast and affordable, enabling connections in diverse environments. With this type of Web publishing, students in different locations are able to involve in their students' collaborative projects. Once the project is complete, students post it on the Website. The final type is the publication of multimedia presentations, where graphics, digitized speech, and hyperlinks can be added to electronic text to create and communicate multimedia presentations. Students' multimedia presentations can range from simple projects of connecting text to computer-made graphics to more complex works which integrate the use of audio and video clips and hyperlinks. Teachers have found that integrating new technologies into their curricula tend to support their students' interest in using interactive components to add meaning to their texts. There are, however, some precautions of using this type of Web publishing that the teacher needs to assure that students are not wasting too much time creating fancy presentations that lack content and cohesiveness rather than using multimedia to support the presentation.

Many types of Web publishing discussed in this section are found to suit different classroom usages. Therefore, the use of each type of Web publishing needs to "match the author's intentions (Calkins, 1994, p.268)." Kitao (2002) suggests a general guideline for the consideration of selecting a suitable type of Web publishing for classrooms as follows. Firstly, the teacher considers the goal of the class, the type of Web publishing to be used, and the aspect of the Web publishing that should be emphasized. Then, the teacher needs to consider the amount of time to be used for the

creation of the webpage. Next, the teacher needs to assess the ability of the students for the use of computers and Internet and English language ability. After that, students search for information on the Internet, evaluate the information, and write up the essay, or make the webpage. Finally, the teacher and students publish the essay projects on the webpage. According to this guideline, the first type of Web publishing, which is the publication of students' essays, seems to be the most suitable for the current study.

This section has discussed about Web publishing in terms of such various types as essay writing, making links, and the combination of both types (Kitao, 2002), the publication of traditional writing assignment, collaborative writing projects, and multimedia presentations (Karchmer, 2001). In order to select a suitable types of Web publishing for a classroom, the teacher needs to consider the goal of the classroom, the aspect of the Web publishing, the time to be used for creating the Website or for the project, students' ability to use computer, as well as students' English language ability (Kitao, 2002). Having explored many types of Web publishing, the next section will present some of the benefits of Web publishing.

#### 2.1.3 Benefits of Web Publishing

Muangsamai (2003) has summarized three main advantages of Web publishing as a synchronous form of Internet. Firstly, it allows information to be proliferated worldwide both in terms of the increasing number of information and the format of the texts being published. Secondly, the proliferation of information on the Internet also takes various formats. Finally, the asynchronous property of information published on the Internet also provides an environment suitable for learners to learn at a slow pace.

The free space available on the Internet enables different groups of people to create texts of their interests and published on the World Wide Web for world community beyond boundary limits (Costello, 2000; Weigel, 2002). Muangsamai (2003) claims that the published information can then be accessed by people by just clicking on the computer monitor. This means that the Web audiences, who are interested in the particular information being presented, may afterwards digest, evaluate information, and establish reactions and responses to the issue concerning the information.

Apart from the increase in the amount of information being published, Muangsamai (2003) states that proliferation of information is in different format from the traditional way of publishing. Firstly, as it is in the digital format, it can be in the form of subtopics which can be created either by the authors of the website themselves or with co-operation with other authors online. Secondly, published information can be presented in the forms of texts, sounds, video strips, slides, or pictures. This finally leads to the change in learning and writing from the linear fashion to nonlinear and even discursive style, attracting an increasing number of audiences.

The asynchronous property of Web allows learners to interact with others in the environment at a slower pace. Firstly, learners who are too shy when learning in class can take benefits from a comfortable setting in the Internet exploring information and give their opinions by interacting with others online (Belcher, 1999; Beach & Lundell, 1998). Secondly, learners can instantly access or save the information for later viewing. This allows learners further study and revisions of the information, which can lead to development in their writing ability in the target language (St.John & Cash, 1995). Next, being asynchronous, information can be accessed by learners who can have time to think while they compose messages, rewrite, or revise messages as much as they want. According to many researchers such as Sotillo (2000), Warschauer (1995, 1996), Kern (1995), and Anton (1999), it has been found that learners write better, with a greater length, using more variety of discourse functions and more complex synthetic messages.

From the ability of Web to proliferate information, Muangsamai (2003) concludes that Web publishing has a potential for interchanging roles between audiences and authors, particularly being a supportive setting for English learners. The reason for this is that learners can access to the target language productively from authentic texts produced by people with expertise in their specific fields. Moreover, learners can develop their language competence through exposing to language in use. Most of all, learners can play roles as an author who, in stead of being an information consumer, can produce texts and publish them in digital ways on the Web.

#### 2.1.4 Web Publishing and Motivation in Writing

Web publishing has been used as a motivational tool for L2 writing. Research studies have found that many forms of Web publishing have motivational effects on L2 writing.

Motivation has been found in a writing course with students doing Web publishing. Barr (1999) found that students' motivation was higher with the group of students working on producing a manual to publish on the Web than the group in which their works were published at the school library. She claimed that, students wrote more drafts and made more revisions for the Web published essays because they were writing for the Internet audiences, instead of local audiences. More details about this study will be discussed in Section 2.4.

Perhaps, one of the important reasons for students to be motivated to write is the opportunity for publication. That is, their work may be published on the Internet, which connects themselves to worldwide audiences in electronic communities. What it means to them is that their writing assignments are not the work just to be handed to teachers for a grade, but their work can be published in the cyberspace with no cost (Shetzer & Warschauer, 2000). Having their products displayed to the public will be very meaningful to them because they have the sense of ownership and authorship. For example, as in Kramsch et al (2000) studies, students in a Spanish-language class paid more attention and were responsible for their audiences as they had to produce multimedia texts on Latin American culture and publish them on their website for future use by undergraduate students and their instructors.

The literature review has suggested that Web publishing has some motivational effects on students. Although such a cause in a wider group of audience has been claimed to be related to such motivation, it may not be clear how motivation is connected to Web publishing. Therefore, the next section will make some discussions on motivation in more details in order to find connections between motivation and Web publishing. Moreover, as Web publishing involves some forms of writing, it will also be discussed in relation to students' writing.

#### 2.2 Motivation

In this section, motivation will be discussed. First, the section presents motivation in terms of the overall concept. General concepts of motivation will be presented with a variety of definitions. Then, it will discuss motivation in relation to L2 learning classroom. In this section, motivation is explained by many motivation models with regards to L2 learning environment. This section explains how views of motivation have changed over time, as with changes in motivation models that have been used to explain each view.

#### 2.2.1 An Overview of Motivation

"The term 'motivation' presents a real mystery: people use it widely in a variety of everyday and profession contexts without the slightest hint of there being a problem with its meaning, and most of us would agree that it demotes something of higher importance. (Dornyei, 2001: p. 7)"

Dornyei's (2001) claim illustrates that the meaning of motivation is complex, and it depends on the contexts of use. Therefore, motivation has been defined in different dimensions, whether it is used for general or educational purposes.

In general term, motivation is based on the Latin verb for "move", referring to a force that makes one do something. A definition offered by Mitchell (1982), "motivation becomes those psychological processes that cause arousal, direction, and persistence of voluntary actions that are goal-related (p. 81)", seems to cover both in the field of psychology and second language education. Dornyei, (2001) defines motivation as concerning with the direction and magnitude of human behavior, which is 1) the *choice* of a particular action; 2) the *persistence* with it; and 3) the *effort* expended on it. In other words, motivation is responsible for 1) *why* people decide to do something; 2) *how long* they are willing to sustain the activity; and 3) *how hard* they are going to pursue it.

Kellers (as cited in Crookes & Schmidt, 1991) has given a similar definition of motivation to that of Dornyei (2001) that "motivation refers to the choices [a student] makes as to what experiences or goals they will approach or avoid, and the degree of effort they will exert in that respect (p.389)."

With regard to the above definitions of motivation, it can be seen that motivation is related to both cognition and behavior, initial choice selected and what to do with the choice. One of the definitions of motivation that seems to cover these aspects would be the definition given by Dornyei and Otto (1998), who say that:

Motivation can be defined as the dynamically changing cumulative arousal in a person that initiates, directs, coordinates, amplifies, terminates, and evaluates the cognitive and motor processes whereby initial wishes and desires are selected, prioritized, operationalised and (successfully or unsuccessfully) acted out (p.65).

#### 2.2.2 Motivation in L2 Classroom

Motivation in L2 classroom has changed over time. The earlier traditional mainstream psychology considers motivation with a person as a stable process, while more recent concepts consider motivation as a dynamic process involving many aspects beyond a person's mind (Dornyei, 2001).

In the early time, L2 language learning was viewed as being more than just education but involving culture of the target language (Gardner, 1979). Therefore, researchers of this time were interested in how the students' perception of the L2, L2 speakers and L2 culture affect their needs to learn the language (Dornyei, 2001). For example, Gardner and Lambert (1972) developed a concept of L2 learning based on a social-psychological approach that attitudes related to L2 community exert a strong influence on one's L2 learning, and that the goal of language learning fell into two broad categories of integrative and instrumental orientation. Later, this concept was developed into the integrative motive, which consists of three components: integrativeness; attitudes toward the learning situation; and motivation. Nevertheless, these concepts of L2 learning are restricted to attitude and other social psychological aspects of L2 learning.

In the 1990s, however, views on L2 motivation have been changed into more educational way. One of the models, which represent the change of L2 motivation in this era, was introduced by Dornyei (1994). This model specifically focused on motivation from a classroom perspective in three levels: language level; learner level; and learning situation level. Another model of L2 motivation was introduced by Williams and Burden (1997). In this model, L2 motivation is considered as a complex and multi-dimensional construct. The various components of motivations are either internal or external to the learner.

In this section, it is obvious that various views and models have been used to explain motivation in general and in relation to L2 learning environment. Although they seem to be too general and do not directly describe how Web publishing affects students' motivation, these views and concepts have given insightful understanding of motivation which leads to a discussion in the next section on motivation and process writing.

#### 2.3 The Writing Process

#### 2.3.1 Models of Writing Process

Process writing is one of the two approaches in teaching writing (O'Malley & Pierce, 1996). It is an instructional method for writing that requires students' involvement in the construction of narratives on topics in which they have a personal interest (Hudelson, 1989, as cited in O'Malley and Pierce, 1996). There are a number of models that explain writing process.

A classic model of the writing process is introduced by Hayes and Flower (1980). This model presents the views of writing activities as a problem solving activity, where a writer has to accomplish the basic processes of planning, translating and revising a text. These basic processes are recursive and not linear, as suggested in older models. For example, the translating of thoughts in text can make a writer plan the text again. Within the basic processes of writing, there are also several sub-processes. That is, the planning of text consists of idea generation and organisation, setting of goals, making a writing plan, while the generated ideas and the writing plan must be translated into text. The stage of revising of a text is rereading and editing a text. All these processes are guided by the rhetorical goals of a text, which comes back in a later and more developmental model of Bereiter and Scardamelia (1987).

Bereiter and Scardamelia (1987) recognize two models of writing. In the first model, the writer generates ideas and writes them down directly without looking at the rhetorical goals of a text. This process is called the knowledge-telling model of writing. On the other hand, in the second model, called knowledge-transforming model, the writer generates ideas and organises them in a way that the text serves the chosen rhetorical goals. In the case of writing an essay, the last model states that a student can reorganise his ideas in such a way that he develops his own knowledge.

Until recently, however, motivation has been included in a model of writing process, one proposed by Hayes' (1996), which is a revised version of Hayes and Flower's model (1980). This revised model recognizes the importance of motivation related to the writing process (see Figure 2.1). It consists of two main parts: the task environment and the individual. The environment in the writing process consists of social and physical environment. The individual part consists of cognitive process, working memory, long-term memory, and motivation.

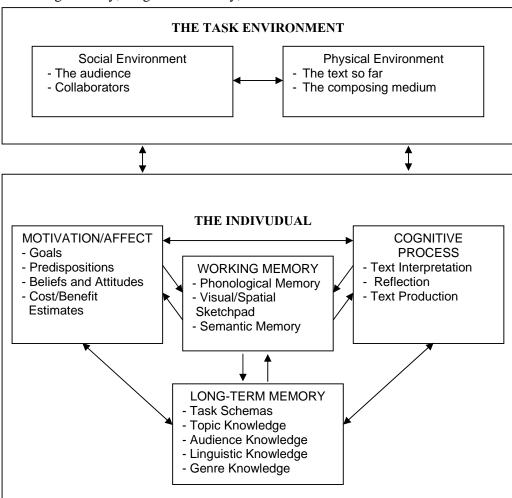


Figure 2.1 Hayes' (1996) model

In the social environment, the audience and collaborators play an important role in process writing, while the text so far and composing medium are physical components of writing that are related to physical environment, which is in turn connected to writers' motivation.

In Hayes' (1996) model, motivation is an individual factor that plays an important role in writing. He explains that motivation, which refers to the writer's goals, predispositions, beliefs and attitudes, and cost/benefit estimates, may affect the way a writer performs the task of writing including the effort that will be put into the task. Moreover, motivation directly relates to three other factors related to individual writer, which are working memory, long-term memory, and cognitive process. Factors in the working memory include phonological memory, visual/spatial sketchpad, and semantic memory. Long-term memory consists of factors such as task schemas, topic knowledge, audience knowledge, linguistic knowledge, and genre knowledge. Finally, cognitive process involves text interpretation, reflection, and text production. Overall, working memory, long-term memory, and cognitive process interact among themselves, and each directly relates to motivation. Therefore, it can be seen from Hayes' (1996) model that, motivation not only is an important factor in the writing process, it also has a relationship with other factors in the model, in both task environment and individual parts. The discussion of how motivation influences writing process can be found in the following section.

#### 2.3.2 Motivation and Second Language Writing

Second language writing is different from first language writing, and this has effects on students' motivation. Weigle (2002) claimed that one of the characteristics

of L2 writing is the difference between L2 ability and expertise in writing. The difference is that L2 ability is the control over the linguistic elements of the second language and L2 writers use the same process of writing in second language as in first language, while expertise in writing can transfer writing process from the first to the second language at a certain level of language ability. Moreover, L2 writers have constraints of limited L2 knowledge so that they have difficulties in writing because they focus on the language rather than the contents. Silva (1993) described L2 writing as "more constrain, more difficult, and less effective (p.668)" than L1 writing. In other words, L2 writers revise less for content, and write less fluently and accurately than L1 language writers.

Second language writers also face problems with language knowledge that they use much of the cognitive resources and have limited time to concern with issues of contents and organization of writing. Apart from the aforementioned difficulties, according to Weigle (2002) L2 writers have to deal with problems of searching for appropriate choices of text to be generated. Consequently, their work may not be as what they intended originally, either with limited language knowledge or they have lost idea from their working memory before they can get to write the idea down.

Apart from limitations in language ability, Weigle (2002) mentioned that L2 writers may be affected by factors such as motivation. Firstly, for L2 writers, motivation to invest in the new language and culture may not be important. Consequently, they may not want to invest their time in the new language, making them not willing to spend an amount of energy to learn to write well. Secondly, L2 writers' motivation are affected by factors such as grades, higher English language

ability, learning new information or impressing teacher or other students, and anxiety. These factors affect their quality of writing.

Section 2.2 has illustrated the fact that motivation is important in L2 learning, and Section 2.3.1 and Section 2.3.2 also point out that motivation plays an important role in L2 writing. It is shown that motivation is important in L2 classroom, including L2 writing. The model of writing process in section 2.3.1 emphasizes the importance of motivation in the process writing. In fact, L2 writers are different from L1 writers and that they have difficulties in writing in terms of both language knowledge and motivation to write.

#### 2.4 Measurements of Motivation in Writing

Motivation in writing may be measured directly from a writer, but often, it can also be measured indirectly by investigating a finished piece of writing i.e. an essay. This section describes some of the quantitative properties of writing such as the number of essay drafts (how many times students make changes to their essays), essay length (how much students write), and essay scores (how well students write their essays).

Essay drafts are also used as a means to measure motivation. Essay drafts are produced in the revision and rewriting stages of the writing process proposed by White and Arndt (1991), where each draft undergoes a write-revise-rewrite cycle. White and Arndt state that essay drafting is the transformation from writer-based to reader-based phase of writing, where the writer should concern more about the reader. Consequently, the writer needs to generate more than one draft by going through a write-revise-rewrite cycle many times until the quality of the final draft is satisfied.

Motivation plays an important role in revision. Reid (1993) suggests that successful revision through making multiple drafts requires motivation, which can be achieved by teacher giving evaluation and descriptive responses to student's writing. Furthermore, according to Hayes' (1996) model, motivation contributes significantly to the students' revision. He pointed out that writers' failure to revise may be caused by the writer's poor reading skills, insufficient working memory, or the fact that writers may not have task schema for revision. As shown in Hayes' (1996) model, working memory and task schema are affected by motivation. Therefore, it can be seen that producing essays drafts is associated with motivation.

Number of drafts has been used in studies to investigate motivation in writing. For example, Barr (1999) investigated the motivational effects of Web publication on the writing process, using essay length and the number of essay drafts to measure students' motivation. She compared the numbers of draft students made in the writing assignments. Forty-six 5<sup>th</sup> grade students at Pacific Beach Elementary, San Diego were divided into two groups. Group 1, the control group, produced school manual for the school library, the other group (the experimental group) produced the same school manual for Web publishing. Barr measured the motivation of the two groups of students by observing their participation during their writing process and made a comparison between the two groups. She found that the experimental group, who produced a manual for Web publishing, participated in the writing process more than the control group, who produced a manual for the school library. She concluded that Internet audiences encourage students to participate in revision activities more than students writing for a local audience. The claim was based on the quantitative analysis of the numbers of draft that students wrote and the number of revisions they made.

Apart from numbers of draft, she also used the length of the essay as one of the measurements of students' motivation. In the study, Barr compared the number of words in the first draft and final draft of the control and experimental groups. The results showed some differences between number of words in the first drafts of both groups, as well as those in the final drafts of both groups.

In Friedman, Zibit and Coote's (2004) study, numbers of draft were used as a main measurement of students' motivation to write. In this study, 54 high school students (Grade 9) were required to compose two narratives and put their texts on the Web. The first writing was posted directly onto the Web, while the second posted with the support of AlphaSmarts, online writing software. When a number of drafts were compared between the two stories, it was found that students submitted more drafts for the second story. With the first narrative text, only seven students managed to put two drafts on the Web, with 27 students produced one draft while the rest 15 students did not send the draft to the Web. In contrast, some students (29) published two drafts, and only eight students did not upload the draft. Friedman et al (2004) concluded that students produced more drafts for the second story than the first for the second story than the first pecause they were more motivated. In this case, the help of online writing technology, the AlphaSmarts, was used as a source of motivation.

In addition, the length of an essay is measured by the number of words written, which has been used as the measurement of writing motivation. Sivyer (2005) conducted a research study in an attempt to investigate the effect of two different types of feedback on students' motivation. Word count was used as a variable of motivation to write. After the students received feedbacks, either positive or negative, after their first writing assignment, they wrote the second writing assignment in fewer words than the first assignment, compared to the controlled group, who received no feedback. Sivyer concluded that the treatment (types of feedbacks) affected the motivation to write, in this case suppressing the number of words written in the subsequence writing task.

Number of words may be expressed by many types of written discourse in the essay, and differences in written discourses produced have found to be affected by motivation. Clachar (1999) used a variety of written discourses students produced in emotional and non-emotional topic types of essay during planning, composing, and revising stages of writing process. The study aimed to find out whether emotion has an influence on discourse processing in L2 writing and on the attention given to planning, composing, and revision during production of L2 written discourse. Although the number of words is not used to assess motivation directly, it has been found that the number of words are affected by emotion at different levels of discourse processing - pragmatic, textual, and lexicomorphosyntactic levels. Clachar (1999) claimed that the larger numbers of discourse on pragmatic and textual discourse processing levels were due to the effect of emotional nature of topic type on students' motivation.

In Friedman et al's (2004) study discussed above, within each essay draft for story one and story two, the number of lines per draft were counted. Total numbers of lines represent the length of the stories. They found that the length of each draft of the second story, which was written with the support of online writing software AlphaSmarts, increased significantly from the first story, written without the support of software. Only 6.5 and 11.5 lines per draft were received from story one. On the other hand, numbers of lines per draft on an average were as high as 24.0, 28.8 and 30.5 lines per drafts, respectively. They explained that the increased number of text written per draft was due to the motivational effect of technology in writing that helps students work through their writing.

Another means of measurement of motivation in essay writing is essay scores. Essay scores are typically used to reflect writing performance which reflects students' motivation (Pajares, 2003). Pajares stated that writing performance typically consisted of essay scores provided by the English professors or researchers trained in holistic scoring. Clachar (1999) also used essay scores as a measurement of motivation. Scores of essays in motivational and non-motivational types were used to reflect student's writing performance in regard to syntax, morphology, and lexis. It was found that essays of emotional topic type reduced the numbers of errors students produced compared to the total number of words written. Clachar (1999) concluded that a topic of emotional nature seemed to motivate students to pay attention to the lexicomorphosyntactic level during planning and composing, leading to the higher quality of the final written product with respect to lexical and morphosyntactic correctness. In other words, the numbers of words represented by written discourses in the essays are resulted from the effect of emotional nature of topic that affects students' motivation to write essays.

Braine (1997) investigated scores of essays written by ESL students, comparing between networked computer and traditional lecture style writing classes.

The aim was to determine which setting promoted better writing, more improvement in writing, and more peer and teacher feedback. The results showed that networked classes had higher mean scores of both first drafts and final drafts. This was explained that the higher scores in both first and final drafts of networked writing classes over the traditional lecture style classes were due to the conditions that promoted successful language learning. Braine concluded that networked environment provided supportive, anxiety-free and motivating environment for students.

Essay scores, even though have not always been explicitly used as the measurement of motivation, implies that higher scores of essay have resulted from one certain condition that promotes students' motivation over the other condition of writing. For example, Braine (1997) and Braine (2001) have presented the higher scores of networked writing classes over traditional classes. In both studies, motivation was used as one of the causes of the differences. It can be concluded that, motivation has some effects on essay scores, and that better essay scores may represent higher motivation.

### 2.5 Summary

Chapter 2 has discussed the literature review of the study including Section 2.1 on Web publishing in terms of its definitions, types, and benefits to L2 writing. It has been found that Web publishing is an important source of motivation in L2 writing. Section 2.2 gives an overview of motivation which illustrates how motivation is related to L2 learning classroom and writing process in particular. In general, motivation may be defined in a variety of ways, motivation has been viewed differently. This is true with L2 classroom where educational motivation has been

found to be different from motivation in general terms. Motivation in L2 environment has been found to be complex as a number of components are involved. Section 2.3 has incorporated motivation with writing process. It gives a general discussion of a shift in writing focuses, from being more product-focused to process-oriented. Moreover, it presents a model of writing process of Hayes (1996) that consists of motivation as an important element. It later explains characteristics of L2 writing and L2 writers, in which there are many difficulties in writing faced by L2 writers in terms of language ability and motivation. The final section (Section 2.4) presents some methods of measuring motivation, focusing on writing properties such as numbers of essay draft, essay length, and essay scores. The next chapter will deal with methodology of the study.

# **CHAPTER 3**

## **METHODOLOGY**

This chapter provides information on how the research study was conducted. It includes the following sections: 3.1 definitions of key terms; 3.2 backgrounds of the settings and the participants; 3.3 research design and subject treatment; 3.4 data collection instruments; and 3.5 statistical analyses of data. A brief summary is given at the end of the chapter.

## **3.1 Definitions of Key Terms**

1. "Web publishing" refers to the publishing of students' complete pieces of writing on the Internet through the E-learning section of a vocational college in northeastern Thailand's website (<u>http://www.nmc.ac.th</u>).

2. "Motivation" is operationally defined by means of a number of essay drafts, essay length (or number of words in the final draft of essay), and essay score.

- 3. "English language ability" means the ability level (high, moderate, and low) according to the results of ability test measured in the current study.
- 4. "Field of study" refers to the categories used for grouping students' study majors, which are computer-related and non computer-related.
  - 5. "Gender" means students' genders which are male and female.
- 6. "Number of essay drafts" is the counts of students' revisions as measured by the number of time students submit drafts of an essay for correction and feedbacks.

7. "Essay length" is the number of words of the final draft regardless of types or words and grammatical and spelling errors.

8. "Essay score" refers to the averaged score derived from the raters, ranging from 1 to 6.

## 3.2 Background of the Setting and the Participants

### 3.2.1 The Course

The General Education Department of a vocational college in northeastern Thailand has been providing English courses for students in a variety of majors. Of all the courses available, English 1 is compulsory for all students at all majors. Students have to enroll the English 1 in the first semester of their study. The aim of the course is to provide students with basic sentence structures that enable students to improve four language skills - speaking, listening, reading and writing – needed for other courses of English in their majors. For writing, students need to improve the skills both for other English courses as well as for their careers and further studies. Therefore, students need to learn how to write good academic writing tasks such as essays and reports, and English 1 course provides such knowledge and practices for these skills.

The English 1 course for the present study ran for 16 weeks, from June 21 to October 1, 2005. Students met in class for two hours a week, in different days for different majors. The course outline is presented in Appendix A. The writing activities started from selecting topics, making outlines, making first draft through to final drafts of the essays, and the course ended with publishing of a selected essay on the Web. Discussions on each activity along the course were done in class, but the writing tasks (making outlines, writing first drafts, revising drafts and typing the final drafts) were done outside classroom. Teacher's feedbacks on the outline and the drafts were also done outside the class time.

### 3.2.2 The Website

The student essays were published on the classroom website. This website had been created by the instructor for a teaching purpose, as a part of e-learning program of the college. The college website was used as a main site for the classroom website. Its URL is at <u>http://www.nmc.ac.th</u>. Within this website, there is a link at the section called E-learning at the Student Service section where the classroom website is attached. This website is maintained by the Faculty of Information Technology. The faculty provides services including web page design, data uploading, and updating information on the homepage. This helped teachers to provide students a chance for publishing their finished works without spending too much time creating the website.

The Class Website. A simple designed web page, partly from the idea of the students and the instructor, was submitted to the Faculty of Information Technology to be linked to the college website. It consists of a section on general course details and a section on students' publishing space. Once the student's work was uploaded (published) on the web page, they could be viewed by all members in the class and the readers who visited the college website. However, the website can also be accessed outside the college website to provide more opportunity for students. The URL of the website is http://geocities.com/schavangklang/nmcweb/webfiles/ index2.htm. (See Appendix B for sample web pages.)

#### **3.2.3** The Participants

The participants are 239 first year students who enrolled in English 1 in the first semester of academic year 2005 at a vocational college in northeastern Thailand. These participants were in five large groups for their lecture classes, taught by a Thai teacher (the researcher of this study), and nine small sub groups for language practice classes taught by an English native teacher. All of the participants finished their senior high schools (grade 12) from many provinces in Thailand, mainly Nakhonratchasima and nearby provinces.

These students are in nine major fields of study, three of which are grouped under computer-related field: 1) Business Computer; 2) Computer Technology; and 3) Computer Science. The other six majors are non computer-related, consisting of: 1) Business Management; 2) Accounting; 3) Law; 4) Hotel and Tourism Management; 5) Nursing; and 6) Health Science. Numbers and percentages of participant in each subcategory are presented in Table 3.1

Table 3.1 Numbers and percentages of participants arranged according to major fields
of study

Field of Study	Major	Number	Percentage
Computer-related	<b>Business Computer</b>	24	10.04
	Computer Technology	22	9.21
	Computer Science	11	4.60
	Total	57	23.85

#### Table 3.1 (Continued)

Field of Study	Major	Number	Percentage
Non Computer-related	Business Management	19	7.95
	Accounting	14	5.86
	Law	12	5.02
	Hotel Management	24	10.04
	Nursing	67	28.03
	Health Science	46	19.25
	Total	182	76.15
Total		239	100.00

The reason for the classification of the major fields of study into computerrelated and non computer-related fields of study is to distinguish between students who have interests in computer and those who have interests in fields of study other than computers. The difference in these interests may have a further influence on students' motivation to write. This is to say, students with interests in computer studies might have motivation to write different from those who are not in computer studies, especially when dealing with Web publishing activities.

Apart from the field of study, English language ability is also employed. In this study, students are divided into three groups of English language ability – low, moderate, high – according to the department's English language ability test taken prior to the beginning of the semester. The department's English language ability test was the C-test, constructed and validated by the department. Each student obtained a single C-test score, derived from three raters, and the scores can be from 0 to 100. Then, scores of all students were divided into three groups according to their interval between the lowest and the highest scores. The scores range between 12 and 63, containing 52 points in between, and could be divided into three levels of English language ability. Each level contains about 17 points. These three levels of English language ability, high, moderate, and low, are relative English language ability within the group of participants. That is, the high English language ability represented participants who gained the highest range of score, while participants with low English language ability received the scores in the lowest portion of the range. Number of participants, the range of score, and number of participants in each level of English language ability are shown with the numbers of students in Table 3.2

**Table 3.2** Numbers of students in each level of English language ability

English language ability	Range	Numbers of Participant	Percentage
High	47 - 63	30	12.55
Moderate	30 - 46	135	56.49
Low	12 - 29	74	30.96
Total		239	100.00

From Table 3.2, most participants (56.49%) have moderate English language ability, having test scores between 30 and 46. There are 74 students (30.96%) with low English language ability who have the scores between and 30. There are only 30 students (12.55%) who gain the test scores from 47 to 63, and they are classified as high English language ability students.

Participants are also classified according to their gender. The numbers of participant in each gender group are shown in Table 3.3.

Gender	Number of Participants	Percentage
Male	42	17.57
Female	197	82.43
Total	239	100.00

Table 3.3 Numbers and percentages of participants in each gender group

Table 3.3 shows that there are more female than male participants in this study. Within 239 participants, female participants contribute to 82.43%, while there are only 17.57% of male participants.

Participants are further grouped into subcategories as their fields of study, gender and English language ability. Table 3.4 presents number of participants in each subcategory that result from the combination of fields of study, gender and English language ability.

Table 3.4 Numbers and percentages of participants in each fields of study

		Perce	ntage of	т	otal					
Major Group	Gender	Low		Mo	derate	Н	igh	Total		
		No.	%	No.	%	No.	%	No.	%	
Computer-related	Male	9	3.77	12	5.02	4	1.67	25	10.46	
	Female	13	5.44	17	7.11	2	0.84	32	13.39	
	Total	22	9.21	29	12.13	6	2.51	57	23.85	
Non Computer-	Male	6	2.51	9	3.77	2	0.84	17	7.11	
Related	Female	46	19.25	97	40.59	22	9.21	165	69.04	
	Total	52	21.76	106	44.35	24	10.04	182	76.15	
Total	Male	15	6.28	21	8.79	6	2.51	42	17.57	
	Female	59	24.69	114	47.70	24	10.04	197	82.43	
	Total	74	30.96	135	56.49	30	12.55	239	100.00	

Most participants (76.15 percent) are of non computer-related field of study, while 23.85 percent are of computer-related. Of these, there are more female participants than male. From the total of 239 participants, 42 were male and 197 were female, representing 17.57 and 82.43 percent respectively.

The majority of participants have moderate English language ability, which contributes 56.49 percent of the total, while there are 74 participants in the low English language ability group and only 30 in the high English language ability group, which is 30.96 and 12.55 percent, respectively. Under the non computer-related field of study, there are 106 participants of moderate English language ability, which contributes 44.35 percent of the total. Of these, 97 (40.59 %) participants are female. This makes them the largest group in the study, and it is far higher than the male in the same category, which consists of 6 participants (3.77%). The least percentages of participants occur in the high English language ability groups of both fields, with 2 participants in each category contributing 0.84 percent of the total.

According to information given by participants during their first classes after the teacher directly asked the class, most participants were not familiar with using the Internet, except for those with computer-related majors. Moreover, all students had never published their works in any previous English writing courses before. Therefore, teaching English writing with the use of the web is a new thing for them, and presumably will motivate them to write. In this particular course, the use of the web focused on getting their writing published on a web page.

#### **3.3 Research Design**

## 3.3.1 The Research Design

The general design of this research is represented in Figure 3.1. According to Brown (1988), this study consists of three groups of variables: independent, moderator, and dependent. There are two independent variables, published essays (on the Web) and unpublished essays. The dependent variables are the numbers of essay draft, essay length, and essay scores. In this case, dependent variables are supposed to be directly affected differently by the two different independent variables. That is, it is expected that published essays would yield the higher number of drafts, length and scores in a different way from those found in unpublished essays. Apart from dependent and independent variables, there are variables in the group called moderator. These variables do not affect directly on the dependent variables, but, according to Brown (1988), they are here to determine how, if at all, the relationship between the independent and dependent variables is affected, or modified. In this study, English language ability, gender, and field of study are chosen to be moderator variables. Published essays and unpublished essays are independent variables, and number of essay drafts, essay length, and essay scores are dependent variables. See Figure 3.1 below.

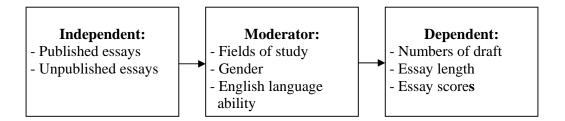


Figure 3.1 The Research Design Diagram

#### **3.3.2 Research Variables**

It is obvious from the discussion that Web publishing, as one of the independent variables, has been found to have some effects on numbers of drafts, essay length, and essay scores, which are dependent variables. These variables can be measured and reflected back as indirectly resulted from independent variables. This section presents some more details about moderator variables.

#### 1) Field of study

As the participants in this study were of a variety of majors, or having differences in the course natures, students were expected to be affected by Web publishing in different degrees, as discussed in Section 3.2.3 on the reason for the grouping of majors of study, which were divided into two fields of study – computer-related and non computer-related. With differences in nature of these two fields of study, Web publishing is expected to motivate differently on participants of these groups.

## 2) Gender

It has been found that motivation is related to gender and gender beliefs (Pajares & Valiante, 2001), gender is the subject of the comparison of student's motivation to write different types of essays. Motivation, regardless of gender, is assessed and compared in terms of how participants in one gender group are motivated to generate different numbers of draft, write different numbers of word, and attempt to gain different scores from one essay compared to the other gender group. Therefore, the motivation to write one type of essay can be expected to be different from the other type of essay in both male and female writers. In short, Web publishing is expected to produce higher motivation to write for male students, as well as for female students. If Web publishing does or does not have a motivational effect, it would be interested to examine how it interacts with gender.

### 3) Students' English language ability

Students of different English language ability have been expected to perform writing tasks differently. In fact, L2 students of different English language ability have different composing behaviors in all stages of writing – from the stage of thinking about the task, sense of audience, drafting, and revising (Gebhard, 1996). There is also the problem of "I can't write English problem" that is faced by the less English language ability writers (Gebhard, 1996). High and low English language ability writers are; therefore, expected to exhibit different levels of motivation as the result of Web publishing.

### **3.3.3 Research Procedure**

This section describes research procedures. There are two stages in the research procedure: topic selection and writing activities. Over all, all the subjects write two essays each, one of which is to be published on the Web and the other not to be published. After students completed the writing process, numbers of draft for each essay are counted, the final draft of each essay is rated for essay scores, and words contained in each essay are counted for essay length. Students' interviews are conducted at the end of the semester to collect data on students' motivation toward Web publishing.

#### 1) Topic Selection

Two prompts were selected from the essay topic bank on TOEFL website (http://www.toefl.org). The two prompts are:

- Prompt 1: Some people prefer to live in a small town. Others prefer to live in a big city. Which place would you prefer to live in? Use specific reasons and details to support your answer.
- Prompt 2: It is better for children to grow up in the countryside than in a big city. Do you agree or disagree? Use specific reasons and examples to develop your essay.

Regarding the selection of the two essay prompts, one may argue that there may be some effects of topic preferences in one essay over the other, which may affect the writing. That is, instead of being motivated by the Web publishing, the fact that students write more drafts, longer essay, and gains better scores, might result from students' preferences to write one topic than the other. As a result, the two prompts have been carefully examined to minimize bias in topic preferences.

The selection of the two prompts was based on the suitability of prompts' content and the reliability of the TOEFL prompts. The followings are discussions of how effects of topic selection bias have been minimized in this research.

Firstly, the contents of the two prompts are not specific for any field of knowledge and they are considered similar in characteristics. The contents of the two prompts are about lives in the countryside and a big city. The only difference between them is in the area of which is better to live in and which is better to grow up for children. Regardless of topic that students get, they would know what to write about the topic.

Secondly, the TOEFL test has a primary purpose to evaluate the English language ability of people whose native language is not English (Weigle, 2002), and the prompts have been continually evaluated for their appropriateness for used with the writers in various aspects. For example, Lee, Breland and Muraki (2004) attempted to study the comparability of TOEFL CBT writing prompts for different native language groups. In the research, 81 prompts introduced from 1998 to 2000 were examined for their comparability between examinees of two different native language groups: the East Asian (Chinese, Japanese, and Korean) and the European (German, French, and Spanish) language groups. English language ability variable, which was created by summing the standardized TOEFL reading, listening, and structure scale scores, was used to match two groups of examinees. The results show that there were no significant differences between the writing scores gained by the two groups regardless of their English ability. It was concluded that effect sizes were too small for any of the prompts to be classified as having important effects.

TOEFL prompts have also been tested for difficulties and writing modes. For example, Breland, Lee, Najaran and Muraki (2004) conducted a research to analyze difficulties of TOEFL prompts comparing between genders of test taker. In two phases of study, essay prompts were investigated. They found that there were no significant differences between essay prompts by genders of writers by mean central tendency of essay scores. The effect sizes of differences were all less than .02. Moreover, for a small number of prompts that had large differences in scores were further reviewed by experts. It was found that, those differences were "not considered to be important" (Breland et al, 2004, p.22). Additionally, logistic regression analysis was performed form prompts that had extreme difficulty against English language ability of the test taker. Again, the results showed that the differences were found to be relatively small.

With regard to the mode of writing, Breland, Lee and Muraki (2004) studied TOEFL prompts' scores compared to English language ability of the test takers to identify differences between writing mode using hand writing and computer writing. They also found that, although there were differences in the way that higher scores were observed from hand written mode of writing, the differences were not statistically significant.

Other than the above reasons, the assignment of the topic to be published on the Web was done on a random basis. Each student randomly selected one out of the two topics by drawing a ballot. No.1 means that prompt 1 is to be Web published, and No.2 is for prompt 2 to be Web published. When one essay is assigned for Web publishing, the other essay automatically becomes non Web published or simply unpublished essay. By this way, students had no chance to choose the topic that they prefer to or not to be published on the web, which reduces a chance of topic preferences.

#### 2) Writing Activities

Writing activities continued for 15 weeks, stated from 21 June 2005. They consist of six basic stages as follow.

**Pre-writing activities**. This stage consists of learning of the format of academic essays. Students explored basic parts of essays in the essay structures. Students also learned from the sample of essay outlines and model essays.

**Creating outline**. Students were assigned to create an outline for each essay to start off with. In class, students tried to brainstorm to get some ideas to write.

Writing the first draft. After students get to write the outlines, they began to write the rough draft for the first time. Students handed in to instructor for examination and feedbacks.

Editing, revising and making consecutive drafts. After receiving feedbacks in the first drafts, students made changes to them. At this stage, they were informed that they were free to hand in their revised drafts as often as they desired. Each student could make as many drafts as they wanted until they were satisfied with their writing.

**Submitting the final draft**. After students were satisfied with their essays, they were asked to submit the final drafts in a computer written format, using Microsoft Words software. The files were named according to their student ID with an extension of .doc. This allows the instructor to manipulate them for score assessment and word counts.

**Web publishing**. The files containing essay to be published were converted from MS Words document (.doc) into a document file with an extension of .html. This was done by using the command 'Save as' in the command menu and selecting extension .html. The files were then uploaded onto the website. The stages described above may vary from student to student. They may not start handing in their outlines of draft at the same time. Therefore, students who finished the final drafts first can get their files published first.

## **3.4 Data Collection Instruments**

From literature, students' motivation in writing is often measured using a variety of protocols, including classroom observations, students' work samples, and students' self-reports, motivation questionnaires, and interview. In large writing classes, however, direct observation may be difficult on the individual basis. Two of these protocols that can be applied to such larges classes are considered here: 1) student work samples (the essays) and 2) students' selected interview.

#### 3.4.1 Student's Essays

Students' essays were used as a protocol for assessing students' motivation in terms of numbers of essay draft, essay length and essay scores. Essay length was measured by counting the number of written words of the final drafts. This was done by employing a Word Count function in a computer word processing program. The final drafts of two essays were submitted in computer document file, which can be either submitted in a floppy disk or via teacher's e-mail address. The number of words included all written words regardless of spelling mistakes and those with wrong grammar and tenses. It also included the essay title and sub-heading, but not the student's name and the student ID.

Students' essays were scored using a Holistic Scoring Rubric for Writing Assessment with English Language Learner (ELL) students developed by ESL teachers, Prince William Country Public Schools, Virginia, as cited in O'Malley and Pierce (1996). (See Appendix C.) This scheme contains four dimensions: meaning, organization, use of transitions, vocabulary, and grammatical/mechanical usage. A rater graded an essay by selecting a single score from 1 - 6 on a holistic scale. O'Malley and Pierce (1996) suggested that this holistic scoring scheme may be adjusted to suit the nature of writing. For example, the rater may select a sample paper from the student and rate it based on level 1- 6 descriptors.

Each essay was graded by a native English instructor and two Thai instructors at a vocational college in northeastern Thailand, one of which is the researcher. All three raters were trained on the rubric before rating. The researcher explained the marking criteria as shown in the assessment rubrics as well as provided examples of essays, which were scored from 1 to 6. An agreement was made on each marking criterion prior to the actual marking. The one averaged score, with 0 decimal places, was used for each essay. The scores range from 6 to 1 representing the best to the worst quality, respectively.

## 3.4.2 Students' Interview

The interview was conducted after final drafts had all been submitted. Six students from each major were selected for the interview, making 54 students all together. Of the six students, two were male and female in each level of English language ability. There were some exemptions for Health Studies which had no male student, and for Nursing which did not have male in all levels of English language ability. The students answered questions from the semi-structure interview related to their motivation towards essay writing. The questions aimed to extract differences in

motivation to write one essay in comparison to the other in terms of how different did the students write their essays in many aspects. The interviews were not audio-tape recorded because the students preferred not to. Each interview was held in a closed room, lasting from 3 to 8 minutes by the instructor.

There are nine questions in the interview which can be grouped into four categories. In the first category, the first two questions are about general background of essay writing. Firstly, Question 1 aims to elicit background of students' writing strategies. It was found that the majority of students wrote their first draft in Thai and then translates into English. Students mostly use Thai-English dictionary to find English words from Thai entries. Secondly, Question 2 asks whether students think that Web published essay is more important than the unpublished one. Students' responses to this question show that they see both essays as equally important.

The second category (Question 3) investigates students' opinions about the difficulties and differences between topic 1 and topic 2. It has been found from the interview that students do not think that the two topics are different. The topics are also not too difficult because they are about general knowledge.

The third category consists of Question 4 and Question 5 which focus on students' feeling about writing task. Students are asked to describe their feelings when writing task is assigned to them in comparison to when their work is done. Students' responses to these questions show that many of them feel worried and think that the writing task is difficult at the beginning, because they have not written essays with many paragraphs. In contrast, when they have finished their final drafts, they feel proud of their work that they have finally done them.

The last four questions in category 4 (Question 6 to 9) ask students about their feelings about Web publishing. For example, how would they feel when they know one of their essays is going to be published on the Web? Additionally, the questions attempts to find out whether they prefer to have their work published on the Web or not. It is quite obvious that all students prefer Web publishing, more or less. They think that it would be better for many other people to see their work, and probably contribute some suggestions to improve their writing. Some students hope that their work may be useful for people who need them.

All the questions mentioned above are outlined as examples because the interview is designed to be a semi-structured interview. In the real interview, the questions are not asked in the same sequence for all interviewees, and not with exact words as in the outlined questions. (See sample questions in Appendix D.)

## 3.5 Statistical Analysis of Data

There are three types of statistical analysis employed in this study.

3.5.1 Descriptive statistics – frequency, percentage, mean and standard deviation (S.D.) - serves as basic statistical means for survey data analysis such as participants and essays.

3.5.2 Referential statistical t-test was used to test for differences between two variables, Web published essays and unpublished essays in terms of mean numbers of draft, length, and score, according to the participant's gender, English language ability, and field of study. There are two sub types of t-test used.

#### 1) Independent sample t-test

This type of statistical analysis is used when a researcher intends to determine whether anything of consequence took place as a result of the experiment. Normally, the analysis is used in the design where two groups of samples receive different treatment. The group that receives the treatment is usually call experimental group 1, and the other is either called experimental group 2 or controlled group (Roscoe, 1975). In either case, there will be two groups to be compared. Therefore, the t-test used in this case is called two independent sample t-tests. The analysis employed the same criterion, or dependent variables. In this case three criteria are measured – numbers of draft, essay length, essay score. In this study the two experimental groups receive different treatments in the form of with or without Web publishing.

## 2) Paired sample t-test

The paired sample t-test, or as called by Roscoe (1975) two related sample ttest is normally used to identify differences between two experimental groups of similar quality that receive different treatment. In the case of this study, although two experimental groups are not of the pairs of two different participants, the pair of published and unpublished essays are used instead, which would serve the purpose.

3.5.3 One-way analysis of variance or ANOVA is used where two or more independent samples are drawn from population having the same mean. In this study, ANOVA is used to compare among three levels of English language ability – high, moderate, and low. If the result shows significant differences among the variables, a

subsequent Pos Hoc analysis will be performed to identify which pairs of variables are different.

## 3.5.4 Interview Data

Analysis of qualitative data from the interview were analyzed and presented in terms of differences in motivation to write Web published essay and unpublished essay.

## 3.6 Conclusion

Chapter 3 has presented methodology of the research. It includes the section of definition of key terms (3.1) that give definitions of Web publishing and motivation in relation to this study. Section 3.2 presents the background of the settings and the participants, including the setting of the course, the website, as well as the participants. In this section, various categories of participants are presented according to participants' field of study, gender and English language ability. Section 3.3, the research design, presents the outline of the research methodology in terms of research diagram in 3.3.1. This lays a ground to section 3.3.2 on the variables of the study where all variables are presented and discussed. Section 3.3.3 outlines the research procedures including treatment of participants. Section 3.4 deals with data collection instruments, which are of student work samples and interviews. The final section of Chapter 3 is statistical analysis of data. It outlines and explains major statistical analysis used in the study.

Next chapter, Chapter 4, will present the result of the study, including various types of analysis and comparisons, from the overall comparison to the comparison in all subcategories of participants.

# **CHAPTER 4**

## **RESULTS OF THE STUDY**

In this chapter, the results of the study are presented. First, there will be the results from the analysis of students' essays, followed by the results from the interview. The results from the analysis of essays will be divided into three main sections according to research questions. Firstly, Section 4.1 compares between published and unpublished essays in terms of overall mean numbers of draft, length, and scores, corresponding to research question 1, whether Web publishing motivates students to write more numbers of essay draft, longer essays, or to write essays with higher scores. Then, Section 4.2 shows the comparisons between published and unpublished essays. It aims to examine differences between the numbers of draft, length, and scores of published and unpublished essays according to the participants' field of study, gender, and English language ability. Section 4.3 deals with comparisons among participants' variables. Section 4.4 consists of results from the interview that will be presented according to the main questions students were asked in the interview in order to elicit differences in their perceptions towards published and unpublished essay writing.

## **4.1 Overall Comparison**

The first research question is "are there any differences between student's motivation concerning writing for Web publishing and writing without Web

publishing?" In order to answer this question, published and unpublished essays were compared statistically using mean numbers of draft, numbers of word in the final drafts, and points gained in the final draft scores as compared variables. This section presents the results of these data analyses in two parts. Firstly, numbers of draft, length, and scores of essays are compared in terms of means. Secondly, there will be the test for the difference between essays, using statistical t-test.

#### 4.1.1 The Overall Comparison of Means

The results show that the numbers of draft, the length and the scores of Web published essays are not much different from those of unpublished essays. The results are shown in Table 4.1.

**Table 4.1** Total means and standard deviations of numbers of draft, length, and scores of published and unpublished essays

Variables	Publishe	d Essay	Unpublished Essay		
v unuores	Mean	S.D.	Mean	S.D.	
- Numbers of draft (Drafts)	2.88	1.93	2.89	2.11	
- Length (Words)	187.12	90.62	184.10	80.67	
- Scores (Points)	3.43	1.04	3.45	1.08	

As shown in Table 4.1, only the length of Web published essay is greater than the length of unpublished essays, but the numbers of draft and scores are lower. Published essays do gain higher numbers of word (the length of the essay) than the unpublished ones: the former is 187.12 words long on average, while the later is 184.10 words long. The average numbers of draft and the scores of published essays are nearly the same as that of the unpublished essays, with mean numbers of 2.88 and 2.89 drafts per essay, and the scores of 3.34 and 3.45, respectively.

## **4.1.2 Test for Overall Difference**

While the results from the comparison of means seem to show that there is no difference between numbers of draft and the scores gained from the Web published and those of the unpublished essays, and that the length of the published essay is greater than the length of the unpublished one, it is necessary to further investigate whether the differences are significant. The statistical t-test was used for this test, and the results are shown in Table 4.2.

 Table 4.2
 T-test for significant difference between Web published and unpublished essays

Comparisons	t-value	p-value
Numbers of draft of published essays – Numbers of draft of		
unpublished essays	0.17	0.86
Length of published essays - Length of unpublished essays	0.52	0.60
Scores of published essays - Scores of unpublished essays	0.62	0.53

Results from Table 4.2 shows that there is no significant difference between published and unpublished essays in terms of numbers of draft, length, and scores. The differences between the numbers of draft, length, and scores of the two are not at 0.05 level of significant. Section 4.1 has shown that there is no significant difference between published and unpublished essays when all essays are compared regardless of writers. However, it does not give details on how different they are among writers, who are different in field of study, gender and level of English language ability. That is, it might be possible that there are differences between published and unpublished essays written by male compared to female participants, by participants who study in computerrelated field compared to non computer-related field, and by participants who have low English language ability compared to those who have moderate and high levels of English language ability. These comparisons will be presented in Section 4.2.

## 4.2 Comparisons between Published and Unpublished Essays

In this section, published and unpublished essays are compared in terms of numbers of essay draft, essay lengths, and essay scores. Essays will be compared against participants' variables, ranging from field of study, gender, English language ability, field of study and gender, field of study and English language ability, gender and English language ability, and the combination of field of study, gender and English language ability.

## 4.2.1 The Numbers of draft

## 1) Fields of Study

In the first comparison, essays are compared according to whether the writers are in computer-related or non computer-related field of study. This is to investigate if there is any difference between published and unpublished essays written by each group of participants. The results of the comparison are shown in Table 4.3.

 Table 4.3
 Comparisons between numbers of draft of published essays and those of unpublished essays written by participants in different fields of study

		Published			publis	hed		
Participant	essays			essays			t-value	p-value
	Ν	Mean	S.D.	Ν	Mean	S.D.		
Computer-related	33	1.76	1.2	33	1.42	1.1	1.876	0.070
Non computer-related	138	3.14	2	138	3.25	2.1	-0.858	0.393
Total	171	2.88	1.9	171	2.89	2.1	-0.172	0.864

As shown in Table 4.3, p-values in the t-test analysis reveal no significant differences in the numbers of draft of published and unpublished essays, the p-value are .070 and .393 for computer-related group and non computer-related group, respectively, which is higher than .05. It can be concluded from the data that participants in the computer-related group do not write published essays in the greater numbers of draft than unpublished essays.

Nevertheless, when the statistical means are considered, unpublished essays received slightly higher mean in terms of numbers of draft than that of published essays in the total comparison, with 2.89 and 2.88 drafts per essay, respectively. However, in non computer-related group, numbers of drafts of unpublished essays are shown to be of higher mean of numbers of draft than published essays, with 3.25 to 3.14 drafts per essay, respectively. In contrast, computer-related participants wrote unpublished essays with higher mean of numbers of draft of 1.76 drafts per essay compared to 1.42 drafts of published essays.

#### 2) Gender

The comparisons between the numbers of draft of published essays and unpublished essays written by male and female participants are presented in Table 4.4.

 Table 4.4
 Comparisons between numbers of draft of published essays and those of unpublished essays written by participants in different gender

	Published			Unpublished				
Participant	essays			essays			t-value	p-value
• •	Ν	Mean	S.D.	Ν	Mean	S.D.		
Male	29	1.45	0.8	29	1.62	1.5	-0.644	0.525
Female	142	3.17	2	142	3.15	2.1	0.128	0.899

With regard to gender, data in Table 4.4 show that male participants wrote fewer drafts for published essays (1.45) than unpublished essays (1.62). Female participants, on the other hand, composed slightly more drafts of published essays (3.17) than unpublished essays (3.15). When considering the p-values of these differences; however, there is no significant difference between two types of essay at level of .05, with the p-values of .525 for male and .889 in female comparisons of the numbers of essay draft.

#### 3) English language ability

With regard to English language ability, participants with low English language ability tend to write more drafts for published essays than they do for unpublished ones. Participants with other levels of English language ability do the reverse.

	Published			Unpublished				
Participant	essays			essays			t-value	p-value
	Ν	Mean	S.D.	Ν	Mean	S.D.		
High	24	2.92	2.6	24	3.46	2.5	-1.701	0.102
Moderate	96	3.09	1.8	96	3.20	2.1	-0.789	0.432
Low	51	2.45	1.7	51	2.06	1.8	2.331	0.024*

 Table 4.5
 Comparisons between numbers of draft of published essays and those of unpublished essays written by participants in different levels of English language ability

\* Mean numbers of draft significantly different at .05 level

Table 4.5 shows that there are differences in the numbers of draft of published essays and unpublished essays. Firstly, participants with low English language ability wrote significantly more numbers of drafts for published essays (2.45) than unpublished essays (2.06). However, participants with high and moderate English language ability seemed to compose more drafts for unpublished essays than published essays, although not significantly different. That is, high English language ability participants produced 3.46 drafts of unpublished essays on average compared to 2.92 drafts for published essays. Likewise, participants with moderate level of English language ability made 3.20 drafts of unpublished essays, but only 3.09 drafts for published essays.

At this point, it can be seen that, with regard to field of study, participants in the computer-related field of study seem to write more drafts for published essays than unpublished essays (1.76 and 1.42, respectively), even though the difference is not statistically significant. With respect to gender, female participants submitted more drafts for published essays (3.17 and 3.15, respectively). Finally, participants with low English language ability composed significantly more drafts for published essays than unpublished essays (2.45 and 2.06, respectively). The next four sections will investigate further for differences between the numbers of draft of published and unpublished essays according to the interaction among all three variables - fields of study, gender, and English language ability of participants.

## 4) Field of Study and Gender

This section investigates within each field of study and gender whether participants attempted to hand in more numbers of draft for published essays for unpublished essays. The results of comparisons are shown in Table 4.6.

 Table 4.6
 Comparisons between numbers of draft of published essays and those of unpublished essays written by participants in different fields of study and of different gender

Field of Study	Gender	Published Essays			publis essays		t-value	p-value	
	-	Ν	Mean	S.D.	Ν	Mean	S.D.		-
Computer-related	Male	15	1.33	0.6	15	1.13	0.9	1.146	0.271
	Female	18	2.11	1.5	18	1.67	1.2	1.512	0.149
Non computer-related	Male	14	1.57	1.0	14	2.14	1.9	-1.119	0.283
	Female	124	3.32	2.0	124	3.37	2.1	-0.409	0.683

The t-test analysis of all comparisons of drafts are higher than 0.05, meaning that there are no significant differences between mean numbers of draft of published essay and unpublished essays regardless of differences in gender in each field of study. However, statistical means indicate some differences in the numbers of draft. That is, there is a higher numbers of draft of published essay produced by male participants in computer-related field of study (1.33 drafts), compared to unpublished essays (1.13 drafts). This is in contrast with male participants in non computerrelated field who managed to submit more drafts of unpublished essays (2.14 drafts) than published essays (1.57 drafts). Female participants in computer-related field of study reached the numbers of draft of 2.11 of published essay, which is higher than the average number of draft of published essays (1.57). Non computer-related female participants, in contrary, composed fewer drafts for published essay (3.32) than unpublished essay (3.37).

It can be concluded that, although the comparison shows no significant differences between published and unpublished essays, there are still differences on the means of drafts of essays. For male, only the computer-related participants generated more drafts for published essays than unpublished essays while non computer-related male participants did the reverse. For female, only the computer-related participants tried to hand-in more drafts for published essays, which is in the opposite direction to what female participants did published essays.

# 5) Field of study and English language ability

In this section, participants with different English language ability in each field of study are compared in terms of the numbers of draft they wrote for published and unpublished essays. The result is shown in Table 4.7.

Field of Study	English language	Published Essays		Ur	npublis Essays		t-value	p-value	
	ability	Ν	Mean	S.D.	Ν	Mean	S.D.	_	
Computer-related	High	4	1.00	.82	4	1.00	.82	-	-
	Moderate	15	2.07	1.28	15	1.87	1.19	.899	.384
	Low	14	1.64	1.15	14	1.07	.10	1.665	.120
Non computer-related	l High	20	3.30	2.66	20	3.95	2.37	-1.7.6	.103
	Moderate	81	3.28	1.87	81	3.44	2.12	-1.066	.290
	Low	37	2.76	1.79	37	2.43	1.85	1.672	.103

 Table 4.7
 Comparisons between numbers of draft of published essays and those of unpublished essays written by participants of different fields of study and English language ability

In Table 4.7, there are some differences between the numbers of draft students wrote for published and unpublished essays, although they are not statistically significant. Firstly, it can be noticed that there are more drafts for published essays than unpublished essays when the essays were composed by participants with low English language ability in computer-related field of study, A higher number of drafts of 1.64 was obtained for published essay, where as only 1.07 drafts for unpublished essays were produced. In the non computer-related field of study, low English language ability participants made 2.76 drafts of published essays compared to 2.43 drafts for unpublished essays. For participants with moderate English language ability, only those in the computer related field of study generated more drafts (2.07) for published essays than unpublished essays (1.87). Participants with moderate English language ability in non computer-related field of study, however, wrote more drafts for unpublished essays than published essays, with average numbers of draft of 3.44 and 3.28, respectively. For the high English language ability participants, those in non computer-related field of study also revised more drafts for unpublished essay

(3.95) than 3.30 drafts for published essays. High English language ability participants in computer-related field of study, however, had exactly the same numbers of draft for both essays.

It seems that low English language ability participants in both computerrelated and non computer-related fields of study, as well as participants with moderate English language ability in computer-related field of study tend to write more drafts for published essays than unpublished essays. In contrast, for participants with moderate and with high English language ability in non computer-related fields of study more drafts were obtained for unpublished than published essays.

#### 6) Gender and English language ability

**Table 4.8** Comparisons between of numbers of draft of published essays and those of unpublished essays written by participants of different gender and English language ability

	English language	Published Essays			Ur	npublis	hed		
Gender	ability					essays		t-value	p-value
	aomty	Ν	Mean	S.D.	Ν	Mean	S.D.		
Male	High	4	1.25	0.5	4	1.25	0.5	-	-
	Moderate	15	1.40	1.0	15	1.93	2.0	-1.096	0.292
	Low	10	1.60	0.7	10	1.30	0.8	1.406	0.193
Female	High	20	3.25	2.7	20	3.90	2.5	-1.716	0.103
	Moderate	81	3.41	1.8	81	3.43	2.0	-0.193	0.847
	Low	41	2.66	1.8	41	2.24	1.9	2.037	0.048*

With regard to English language ability and gender, Table 4.8 shows that higher numbers of draft come from published essays of low English language ability participants, both male and female. Low English language ability female participants produced 2.66 drafts for published essays, with only 2.24 drafts for unpublished ones. This difference is significant, with p-value of .048. For low English language ability male participants, with no statistical significances, the numbers of draft of published essays was 1.60, which is higher than 1.30 drafts for unpublished essays.

In contrast, moderate English language ability, male and female, participants as well as high English language ability female, gained higher numbers of draft for unpublished essays than for published essay, while high English language ability male narrated the same numbers of draft for both essays.

# 7) Field of Study, Gender, and English Language Ability

The previous section presents comparisons of numbers of draft between published and unpublished essays with one and two variables of participants. This section compares essay against three variables of participants – the combination of field of study, gender and English language ability. The comparisons results are shown in Table 4.9.

 Table 4.9
 Comparisons between numbers of draft of published essays and those of unpublished essays written by participants of different fields of study, gender and English language ability

		English	F	ublishe	d	Un	publish	ned		
Field of study	Gender	language		Essays			essays		t-value	p-value
		ability	Ν	Mean	S.D.	Ν	Mean	S.D.	-	
Computer-	Male	High	3	1.33	0.6	3	1.33	0.6	-	-
Related		Moderate	7	1.29	0.8	7	1.29	1.3	0.000	1.000
		Low	5	1.40	0.6	5	0.80	0.5	1.500	0.208
	Female	High	1	0.00	-	1	0.00	-	-	-
		Moderate	8	2.75	1.3	8	2.38	0.9	1.000	0.351
		Low	9	1.78	1.4	9	1.22	1.2	1.104	0.302
Non Computer-	Male	High	1	1.00	-	1	1.00	-	-	-
Related		Moderate	8	1.50	1.2	8	2.50	2.4	-1.128	0.296
		Low	5	1.80	0.8	5	1.80	0.8	-	-
	Female	High	19	3.42	2.7	19	4.11	2.3	-0.172	0.103
		Moderate	73	3.48	1.8	73	3.55	2.1	-0.505	0.615
		Low	32	2.91	1.9	32	2.53	2.0	1.679	0.103

From Table 4.9, it can be seen that most low English language ability participants generated more numbers of draft for published essays than unpublished essay, while participants with high and moderate English language ability either produced more numbers of draft for unpublished essays than published essays, or submitted the same numbers of draft.

Low English language ability male and female participants in the non computer-related field of study posted more drafts for published essays, 1.40 and 1.78 drafts, compared to unpublished essays, 0.80 and 1.22 drafts, respectively. Moreover, low English language ability female participants in non computer-related field of study also returned more published essay drafts (2.91) than unpublished essays (2.53). Finally, low English language ability male participants in non computer-related field of study made the same numbers of draft for both essays (1.80).

For moderate English language ability, while male and female participants in computer-related field of study composed more drafts for published essays, with the average of 1.29 drafts (S.D.=0.8) for male and 1.29 drafts (with S.D.=1.3) for female participants than unpublished essays, with 2.75 drafts for male and 2.38 drafts for females, respectively. In contrast, moderate English language ability participants in non computer-related field of study submitted more drafts for unpublished essays than published essays. Male participants wrote 1.50 drafts for published essays compared to 2.50 drafts for unpublished essays, while female participants in the same field of study revised 3.48 and 3.55 drafts, respectively.

For high English language ability, only female participants in the non computer-related field of study attempted to generate more drafts for unpublished essays (4.11) than published essays (3.42). All other participants with high English language ability revised the same numbers of draft for both essays. Unpublished essays from high English language ability male participants in non computer-related field of study contained 1.00 draft and those from male participants with high English language ability in computer-related field of study consisted of 1.33 drafts.

It can be concluded from Table 4.9 that low English language ability participants revised more numbers of draft for published essays than unpublished essays. For participants with moderate English language ability, only those in computer-related field of study did not attempt to hand-in more drafts for published essays. Lastly, most participants with high English language ability returned the same numbers of draft for both essays, except for female participants in non computerrelated field of study, who submitted more drafts for unpublished than published essays.

### 8) Summary for Numbers of Essay draft

In the comparison between the numbers of draft of published essays and unpublished essays, it can be concluded that, with regard to English language ability, participants with low English language ability seem to write more drafts for published essays than for unpublished essays. With gender, female participants revised more drafts for published essays than unpublished essays. And with regard to fields of study, only non computer-related participants preferred making more drafts for published essays than unpublished essays.

This section presents comparisons of essays in terms of numbers of draft. Next section shows the comparisons between published and unpublished essays in terms of their lengths or the number of words in the essays.

### 4.2.2 Comparisons of Essay Length

An essay length derived from the total numbers of word counted in the final draft of each essay. This section presents comparisons between published and unpublished essays using length as compared variable. Comparison results will be presented in the same order as for the comparisons of essay drafts. Firstly, published and unpublished essays will be compared in separated groups according to fields of study, gender, and English language ability of participants. Then, the combination between variables will be made for comparisons.

# 1) Fields of Study

This is to investigate if there is any difference between the length of published and unpublished essays written by participants in different fields of study. The results of comparisons are shown in Table 4.10.

 Table 4.10 Comparisons between length of published essays and that of unpublished essays written by participants of different fields of study

Participant	Pu	blished es	ssays	Unp	oublished	t-value	p- value	
	Ν	N Mean <sup>*</sup> S.D. N Mean <sup>*</sup> S.D.		S.D.		value		
Computer-related	33	136	70.3	31	127	63.3	1.213	0.235
Non computer-related	135	199	90.8	135	197	78.8	0.217	0.828
* Moon much and of mond non.								

\* Mean numbers of word per essay

As shown in Table 4.10, p-values in the t-test analysis reveal no significant difference in the length of published and unpublished essays, but statistical means indicates that participants in computer-related field of study seem to write more words for published essays than for unpublished ones.

When considering p-value, they are above .05 in all comparisons, meaning that there is no significant difference between the length of published essays and unpublished essays, regardless of whether they are written by computer-related or non computer-related participants. It can be concluded from the data that participants in the computer-related group do not write longer published essays than unpublished essays. This is true to the participants in the non computer-related group.

Nevertheless, when considering the statistical means, unpublished essays seem to contain slightly greater length than published essays in both groups of participants. As high as 136 words of published essays were received from participants in computer-related field of study, with only 127 words for unpublished essays written by the same group of participant. And those in the non computer-related field used 199 and 197 words long for published and unpublished essays, respectively.

Comparisons of essay lengths discussed in this section suggest that published essays seem to contain greater lengths than unpublished essays, despite the fact that the differences are not significant in the overall comparison across different fields of study. The next section will investigate differences in the length between published and unpublished essays written by participants of different gender.

### 2) Gender

Table 4.11 presents caparisons of the lengths of published essays and unpublished essays written by participants of different gender.

Participant	Puł	olished e	ssays	Unp	ublished	t-value	p- value			
	Ν	Mean	S.D.	Ν	Mean	S.D.		value		
Male	29	144	80.21	27	162	73.87	-1.562	0.13		
Female 139 195 90.2				139	188	81.50	1.019	0.31		
* Mean numbers of word non eccess										

 Table 4.11 Comparisons between length of published essays and that of unpublished

essays written by participants of different gender

\* Mean numbers of word per essay

It can be seen from Table 4.11 that female participants composed longer published essays (195 words) than unpublished essays (188 words). However, male participants generated longer unpublished essays (162 words) than published essays (144 words). These differences are not significant according to the p-values, which are all above .05.

Next section will investigate differences between Web published and unpublished essays written by participants with different levels of English language ability.

### 3) English language ability

 Table 4.12 Comparisons between length of published essays and that of unpublished

 essays written by participants of different English language ability

Participant	Puł	olished e	ssays	Unp	oublished	t-value	p- value		
	Ν	Mean	S.D.	Ν	Mean	S.D.		value	
High	24	197	102.69	24	219	73.65	-1.056	0.302	
Moderate	94	194	91.45	93	192	74.24	0.540	0.590	
Low	50 167		80.72	49	152	86.41	1.176	0.245	

\* Mean numbers of word per essay

As shown in Table 4.12, there are differences between the length of published and unpublished essays, although not statistically significant. Firstly, longer unpublished essays of 219 words on average, compared to 197 words, were received from participants with high English language ability. However, longer published essays derived from participants with moderate English language ability participants, who wrote 193 words and 192 words of the respective essays. This is the same for low English language ability participants who composed 167 words for published essays, which is longer than unpublished essays (152 words). In general, low and moderate English language ability participants seem to produce longer published essay than unpublished essays, while high English language ability participants composed longer unpublished essays than published essays.

### 4) Field of Study and Gender

In this section, lengths of published essays are compared to lengths of unpublished essays using gender as a variable that separates participants in each field of study. Therefore, the comparisons are grouped into four sets accordingly: 1) computer-related male; 2) computer-related female; 3) non computer-related male; and 4) non computer-related female. Total comparisons are also given for each group. The results of comparisons are shown in Table 4.13. There are two statistical values to be considered – the p-value from t-test analysis and statistical means with standard deviations. The former is used to examine the significant difference, and the later is used to indicate the difference.

Field of Study	Gender		essays	5	Unp	ublished	essays	t-value	p-value	
		Ν	Mean	S.D.	Ν	Mean	S.D.			
Computer-related	Male	15	125	67.32	13	134	61.20	-0.86	0.407	
	Female	18	145	73.41	18	123	66.11	1.83	0.085	
Non computer-	Male	14	164	90.16	14	189	76.94	-1.329	0.207	
Related	Female	121	203	90.34	121	198	79.26	0.611	0.542	
* Mean numbers of word per essay										

Table 4.13 Comparisons between length of published essays and that of unpublished

essays written by participants of different fields of study and gender

\* Mean numbers of word per essay

The p-values in the t-test analysis shown in Table 4.13 are all higher than 0.05, indicating that there are no significant differences between lengths of essays, in published and unpublished groups. However, statistical means of essay lengths are different in many instances, with female participants having longer published essays while male participants who have longer unpublished essays. The details are presented below.

Despite of the lack of significant differences between lengths of published and unpublished essays suggested by t-test analysis, statistical means indicate some difference in numbers of word on the essays in two ways. Firstly, published essays written by female participants in both fields of study contained more words for published essays than for unpublished essays. On average, 195 words on published essays, and 188 words on unpublished essays were counted. Within these numbers, female participants in the non computer-related fields of study had their published essays counted for 203 words and 198 words for the unpublished ones. Female participants in the computer-related field of study write even greater length of published essays, with an average of 145 words, compared to 123 words for unpublished essays. Secondly, in the opposite way, male participants in both computer-related and non computer-related fields of study seem to exhibit longer unpublished essays than published essays. While male participants wrote published essays with an average length of 144 words, 162 words for unpublished essays were written. The differences also occur with male participants in computer-related field of study, with only 125 words per essay compared to 134 words for unpublished essays. In the non computer-related field of study, the male participants wrote as long as 189 words for unpublished essays, but only 164 words for published essays, on average.

In general, it can be seen from the data in Table 4.13 that, female participants seem to produce longer published essays than unpublished essays. On the other hand, male participants tend to write unpublished essays in a greater length compared to the published ones, regardless of their fields of study. These differences are, nevertheless, not significant.

# 5) Field of Study and English language ability

In this section, length of published essays is compared to unpublished essays according to field of study and English language ability of participants.

 Table 4.14 Comparisons between length of published essays and that of unpublished essays written by participants of different fields of study and English language ability

	English	Put	lished E	Essays	Unpu	ublished	essays	_	
Field of Study	language ability	N	Mean	S.D.	N	Mean	S.D.	t-value	p-value
Computer-related	l High	4	141	82.63	4	142	80.11	456	.679
	Moderate	15	143	79.92	14	133	62.37	1.381	.191
	Low	14	127	59.68	13	117	62.98	.612	.552
Non computer-	High	20	208	104.33	20	234	63.83	-1.042	.310
related	Moderate	79	204	90.70	79	202	71.60	.206	.837
	Low	36	182	83.13	36	165	90.81	1.022	.314

\* Mean numbers of word per essay

It can be summarized form Table 4.14 that, low and moderate English language ability participants, in both field of study, wrote longer published essays than unpublished ones.

For low English language ability, the numbers of word in published essays and unpublished essays are 127 and 117 words for essays written by participants in computer-related field of study, and 182 and 165 words for essays written by participants in non computer-related field of study, respectively. Likewise for moderate English language ability, participants in computer-related field of study wrote 143 words and 133 words, while participants in non computer-related field of study wrote 204 words 202 words for published essays and unpublished essays, respectively.

In contrasts to participants with low and moderate English language ability, those with high English language ability generate longer unpublished essays than published ones. High Participants in computer-related field of study had 142 words and 141 words long for unpublished and published essays, respectively. Participants in non computer-related field of study wrote longer unpublished essays of 234 words than published essays of 208 words on average.

It is obvious that published essays from low and moderate English language ability participants were longer than unpublished essays, which is opposite to essays written by high English language ability participants.

### 6) Gender and English Language Ability

This section presents comparisons between length of published essays and that of unpublished when written by participants of different gender and English language ability. The results are in Table 4.15.

 Table 4.15 Comparisons between length of published essays and that of unpublished essays written by participants of different gender and English language ability

Field of	English	Pul	blished E	Essays	Un	published	essays	_	
Study	language ability	Ν	Mean	S.D.	N	Mean	S.D.	t-value p-valu	
Male	High	4	160	120.89	4	137	69.26	0.899	0.435
	Moderate	15	128	85.14	14	153	78.59	-1.426	0.177
	Low	10	161	55.07	9	189	67.79	-1.684	0.131
Female	High	20	204	100.57	20	235	64.10	-1.286	0.214
	Moderate	79	206	87.69	79	199	71.72	1.289	0.201
	Low	40	168	86.46	40	144	88.70	1.572	0.124

When considering length of essay written by participants with different gender and English language ability, it has been found from Table 4.15 that low and moderate English language ability female and high English language ability male participants produced longer published essays than unpublished essays. In contrast, high English language ability female and low and moderate English language ability male composed longer unpublished essays than published ones.

With low English language ability, as many as 168 words per published essays compared to 144 words per unpublished essays were obtained from female participants. Moderate English language ability female composed 206 words and 199 words, while high English language ability male attempted to write 160 and 137 words for published and unpublished essays, respectively.

In contrast, male participants with high level of English language ability composed longer unpublished essays (235 words) than published ones (204 words). Male participants with low levels of English language also wrote fewer words for published essays (161 words) than unpublished essays (189 words). Similarly, male participants who have moderate level of English language ability finished published essays with the length of 128 words, which were shorter than 153 words for unpublished essays.

# 7) Field of Study, Gender, and English Language Ability

This section presents comparison between lengths of published and unpublished essays within groups of participants in relation to their English language ability, gender, and fields of study. As shown in Table 4.16, male and female participants within each field of study are divided in to three groups of high, moderate, and low English language ability giving 21 comparisons. As in previous sections, the comparisons are based on t-test analysis and statistical means for the differences. Table 4.16 contains these values.

 Table 4.16 Comparisons between numbers of word in published essays

 unpublished essays

Field of study	Gender	English Language	Pu	blished I	t-value	p- value				
study		Ability	Ν	Mean	S.D.	Ν	Mean	S.D.		value
Computer-	Male	High	3	100	23.71	3	103	15.01	-0.435	0.706
Related		Moderate	7	126	91.80	6	132	70.22	-0.126	0.905
		Low	5	139	47.37	4	161	68.06	-1.011	0.387
	Female	High	1	261	-	1	261	-	-	-

<b>Table 4.16</b>	(Continued)
-------------------	-------------

Field of study	Gender	English Language	Pu	Published Essays Unpublished essays						p- value
study		Ability	Ν	Mean	S.D.	Ν	Mean	S.D.		value
		Moderate	8	157	70.90	8	134	60.83	2.004	0.085
		Low	9	120	67.28	9	97	52.91	1.038	0.33
Non	Male	High	1	239	-	1	239	-	-	-
Computer-		Moderate	8	131	85.22	8	168	85.48	-1.517	0.173
Related		Low	5	183	57.95	5	211	65.73	-1.248	0.28
	Female	High	19	201	102.41	19	234	65.56	-1.288	0.214
		Moderate	71	212	88.11	71	206	69.52	0.905	0.369
		Low	31	182	87.26	31	158	92.91	1.296	0.205

\* Mean numbers of word per essay

In Table 4.16, some participants wrote published and unpublished essays with exactly the same length. That is, a female participant with high level of English language ability in computer-related field of study composed 261 words for both essays, while essays written by a high English language ability male in non computer-related field of study contain 239 words each.

The incidences that published essays have greater length over unpublished essays occurred with female participants with low and moderate English language ability, both in computer-related and non computer-related fields of study. For the computer-related field, female participants with low English language ability wrote 120 words and 97 words, for published and unpublished essays. And for the non computer-related field, they composed 182 words to 158 words, respectively. This pattern of differences is the same for participants with moderate English language ability. That is, female participants with moderate English language ability in the non computer-related field generated more words of 212 published essays compared to 306 words for unpublished essays. In the same way, moderate English language ability female participants in the computer-related field wrote 157 words and only 134 words.

In general, published essays which contain more words are those written by females of low and moderate English language ability, and with male participants with high English language ability.

The final group of comparison represents the differences between published and unpublished essays in the way that the former having shorter length than the later. Namely, greater numbers of word in unpublished essays are found with male participants who have low and moderate English language ability, both in computerrelated and non computer-related fields of study. Within computer-related field of study, participants with low English language ability were counted 161 and 139 words for their unpublished and published essays, and the moderate English language ability participants received the average word counts of 132 and 126 words in the respected types of essays. For male participants within the non computer-related field of study, those with low English language ability obtained the word counts of 211 words and 183 words on average for unpublished and published essays. Likewise, the moderate English language ability participants generated 168 words for unpublished essays

In light of essay length, it can be; therefore, concluded that despite the lack of significant difference, female participants with low and moderate English language ability in both fields of study tend to compose longer for published essays. On the other hand, unpublished essays written by male participants with low and moderate English language ability consisted of more words than published essays.

### 8) Summary for Essay Length

To sum up, this section presents comparisons between published and unpublished essays in terms of average numbers of word per essay. Firstly, with respect to field of study, both computer-related and non computer-related fields of study gained more words per essay for published essays than unpublished essays. Secondly, it has been found that only female participants produced longer published essays than unpublished ones. When consider English language ability, participants with low and moderate English language ability preferred making longer published essays than unpublished essays, while high English language ability participants seem to do the opposite.

When consider comparisons between the length of published and unpublished essays when combinations of participants variable is concerned, the results can be summarized as follows. Firstly, for the combination of field of study and gender, it has been found that female with low English language ability in both computerrelated and non computer-related fields of study wrote longer published essays than unpublished essays, whereas male participants in both fields of study composed longer unpublished essays. Secondly, with regard to participants' English language ability and their fields of study, the data reveal that participants who had longer published essays than unpublished ones are those with low and moderate English language ability in both fields of study. High English language ability participants tend to obtain more words for unpublished essays than published essays. Thirdly, male participants with high English language ability and female participants with low and moderate English language ability preferred to narrate longer published essay than the unpublished ones. Finally, when three variables of participants are combined, it has been found that, only female who have low and moderate English language ability, in both computer-related and non computer-related fields of study composed longer published essays than the other type of essays.

This section has presented comparisons of essays using number of words. The next section presents the comparisons between published and unpublished essays in terms of their rated scores.

# 4.2.3 The Comparisons of Essay Scores

An essay score is rated in the final draft of each essay. This section presents comparisons between published and unpublished essays using scores as a compared variable. Comparison results will be presented in the same order as for the comparisons of essay drafts and length. Published and unpublished essays will be compared in separated groups according to fields of study, gender, and English language ability of participants, as single variable and combinations of two and all three variables.

# 1) Fields of Study

This section is to investigate if there is any difference between scores of published and unpublished essays written by groups of participants with different fields of study. The results of comparisons are shown in Table 4.17. Scores of each essay range from 1 to 6 points. Scores in Table 4.17 are mean scores with a standard deviation.

Participant	Published essays			Unp	ublished	t-value	p- value	
	N**	Mean*	S.D.	Ν	Mean	S.D.		value
Computer-related	32	2.78	1.20	32	2.63	1.40	1.360	0.184
Non computer-related	129	3.55	0.90	127	3.59	1.00	-1.420	0.158
Total	161	3.40	1.10	159	3.40	1.10	-0.624	0.533

 Table 4.17 Comparisons between scores of published essays and those of unpublished

essays written by participants of different fields of study

\* Mean score in point unit

\*\* Number of rated essays

As shown in Table 4.17, p-values in the t-test analysis reveal no significant difference in the score of published and unpublished essays, but statistical means indicate that participants in computer-related field of study seem to gain more scores for published essays than for unpublished ones. Namely, essays written by participants on computer-related field of study were rated with higher scores (2.78 points) for published essays than for unpublished ones (2.63 points). On the other hand, essays written for Web published by participants in non computer-related field of study produced lower scores (3.55 points) than unpublished essays (3.59 points).

In brief, it has been shown that published essays written by participants in computer-related field of study gained higher scores than unpublished essays. The next section will be a comparison between scores of published essays and unpublished essays according to gender of participants.

# 2) Gender

Table 4.18 in this section summarizes the mean scores of published and unpublished essays according to gender of participants.

Participant	Published essays			Unp	ublished	t-value	p-value	
	N**	Mean*			Mean	S.D.		
Male	28	2.82	1.2	28	2.86	1.2	-0.570	0.573
Female	133	3.52	1.0	131	3.51	1.1	-0.446	0.657

 Table 4.18 Comparisons between scores of published essays and those of unpublished

essays written by participants of different gender

\* Mean score in point unit

\*\* Number of rated essays

In table 4.18, means scores of published essays are found to be higher than those of unpublished essays for female participants, but less for male participants. Male participants received a score of 2.86 points for unpublished essays, while they received 2.82 points for published essays. In contrast, female participants gained slightly higher scores for published essays (3.52 points) than unpublished essays (3.51 points). All these differences, nevertheless, are not statistically significant at .05 level as the p-values are all higher than .05.

# 3) English language ability

Table 4.19 shows that there are differences in scores of published essays and unpublished essays, either higher or lower regarding participants' English language ability.

 Table 4.19 Comparisons between scores of published essays and those of unpublished

 essays written by participants of different English language ability

Published essays			Unp	ublished	t-value	p- value	
N**	Mean*	S.D.	Ν	Mean	S.D.		value
22	3.50	1.0	24	3.38	1.2	-1.000	0.329
91	3.47	1.1	91	3.51	1.1	-0.904	0.369
48	3.21	1.0	44	3.18	1.2	0.298	0.767
	N** 22 91 48	N**         Mean*           22         3.50           91         3.47           48         3.21	N**         Mean*         S.D.           22         3.50         1.0           91         3.47         1.1           48         3.21         1.0	N**         Mean*         S.D.         N           22         3.50         1.0         24           91         3.47         1.1         91	N**         Mean*         S.D.         N         Mean           22         3.50         1.0         24         3.38           91         3.47         1.1         91         3.51           48         3.21         1.0         44         3.18	N**         Mean*         S.D.         N         Mean         S.D.           22         3.50         1.0         24         3.38         1.2           91         3.47         1.1         91         3.51         1.1           48         3.21         1.0         44         3.18         1.2	N**         Mean*         S.D.         N         Mean         S.D.           22         3.50         1.0         24         3.38         1.2         -1.000           91         3.47         1.1         91         3.51         1.1         -0.904           48         3.21         1.0         44         3.18         1.2         0.298

\* Mean score in point unit \*\* Number of rated essays

It has been found that only moderate English language ability participants received higher scores for unpublished essays than published essay, while low and high English language ability were rated with higher scores for published essays than unpublished ones.

While published essays written by moderate English language ability participants received only 3.47 points on average, unpublished essays received the scores of 3.51. On the other hand, essays written by low English language ability and high English language ability participants earned 3.21 points and 3.50 points for published essays, which is higher than the scores obtained from unpublished essays of 3.18 and 3.38, respectively.

### 4) Field of Study and Gender

Scores of published essays are compared to scores of unpublished essays in four sets of participants: 1) computer-related male; 2) computer-related female; 3) non computer-related male; and 4) non computer-related female. Total comparisons are also calculated for all the groups. The results of comparisons are shown in Table 4.20. There are two statistical values to be considered – the p-value from t-test analysis and statistical means with standard deviations.

 Table 4.20 Comparisons between scores of published essays and those of unpublished

 essays written by participants of different fields of study and gender

Field of Study	Condor	Pu	blished E	Essays	Unpu	ıblished	essays	t voluo	p-value	
	Gender	N**	Mean*	S.D.	Ν	Mean	S.D.	t-value	p-value	
Computer-related	Male	15	2.53	1.3	15	2.53	1.4	0.000	1.000	
	Female	17	3.00	1.2	17	2.71	1.5	1.861	0.083	
Non computer-	Male	13	3.15	0.9	13	3.23	0.8	-1.000	0.337	
Related	Female	116	3.59	0.9	114	3.63	1.0	-1.215	0.227	
* 14	•,									

\* Mean score in point unit

\*\* Number of rated essays

The p-values in the t-test analysis shown in Table 4.20 are all higher than 0.05, indicating that there are no significant differences between scores of published essays compared to unpublished essays. However, statistical means of essay scores are different in many instances, for participants in computer-related field of study, both male and female obtained higher scores for published essays, while those in non computer-related field of study gained more points for the unpublished essays. The details are presented below.

Essays written by female participants in computer-related field of study were rated with higher scores for published essays (3.00 points) compared to 2.53 points for unpublished essays. The male participants obtained equal score of 2.53 points for both types of essays. In contrast to this, unpublished essays seem to have more points when written by participants in non computer-related participants. For male participants, their unpublished essays were given 3.23 points compared to 3.25 points of published essays. For female participants, the higher score of 3.63 points was granted to unpublished essays compared to 3.59 points for published essays.

Having examined differences in essay scores using fields of study and gender as variables that categorize participants, the next section investigates differences in participants with different fields of study and English language ability.

#### 5) Field of Study and English Language Ability

This section presents comparisons of published to unpublished essay scores written by participants with different fields of study and English language ability. Table 4.21 summarized the data.

	English		Publish	ed					
Field of Study	language		Essays	5	Unp	ublished	essays	t-value	p-value
	ability	Ν	Mean	S.D.	Ν	Mean	S.D.		
Computer-related	High	4	2.50	1.291	4	2.50	1.291	-	-
	Moderate	15	2.67	1.397	15	2.60	1.454	1.000	.334
	Low	13	3.00	1.080	13	2.69	1.494	1.000	.339
Non computer-	High	18	3.72	.826	20	3.55	1.099	-1.000	.331
Related	Moderate	76	3.63	.921	76	3.68	.883	-1.270	.208
	Low	35	3.29	1.017	31	3.39	.989	372	.712

 Table 4.21 Comparisons between scores of published essays and those of unpublished

 essays written by participants of different fields of study and English

\* Mean score in point unit

language ability

\*\* Number of rated essays

As shown in Table 4.21, there are differences, although not significant, between essay scores of published and unpublished essays written by different groups of participants. Firstly, there are three groups of participants that had higher score points for published essays over the unpublished ones: low and moderate English language ability in computer-related and high English language ability in non computer-related field of study. Namely, for published essays they composed, they obtained 3.00, 2.67 and 3.72 points, compared to 2.69, 2.60, and 3.55 points for unpublished essays, respectively. Secondly, two groups of participants, those with low and moderate English language ability in non computer-related fields of study, were given the scores of 3.39 and 3.68 points for unpublished essays, compared to 3.29 and 3.63 points for the other type of essays. Finally, participants with high English language ability in computer-related group received 2.50 points for both types of essays.

In this section, scores of published essays are compared with scores of unpublished essays, in relations to participants with different gender and English language ability. As shown in Table 4.22, there are some insignificant differences on the scores of both essays.

 Table 4.22 Comparisons between scores of published essays and those of unpublished essays written by participants of different gender and English language ability

	English		Publishe	ed					
Gender	language		Essays		Unp	ublished	essays	t-value	p-value
	ability	N**	Mean*	S.D.	Ν	Mean	S.D.		
Male	High	4	2.25	1.0	4	2.25	1.0	-	-
	Moderate	14	2.71	1.3	14	2.71	1.3	-	-
	Low	10	3.20	0.9	10	3.30	1.1	-0.557	0.591
Female	High	18	3.60	0.8	20	3.78	1.1	-1.000	0.331
	Moderate	77	3.61	1.0	77	3.65	1.0	-0.903	0.369
	Low	38	3.21	1.1	34	3.15	1.2	0.701	0.488

\* Mean score in point unit

\*\* Number of rated essays

It has been found that the score of published essays was higher than that of unpublished ones only when the essays were written by female with low English language ability. Published essays written by other groups of participants either had lower scores than or equal scores to unpublished essays.

Low English language ability female are the only group of participants in which their published essays were rated higher scores of 3.21 over the scores of 3.15 of unpublished essays. On the other hand, there are three groups of participants who wrote published essays with lower scores than unpublished ones: low English language ability male (3.20 and 3.30 points), moderate English language ability female (3.61 and 3.65 points) and high English language ability female participants (3.60 and 3.78 points). The last two groups of participants had the same points for both types of their essays, high and moderate English language ability male with 2.71 and 2.25 points for the respect types of essays.

### 7) Field of Study, Gender, and English Language Ability

This section presents a comparison between scores of published and unpublished essays within groups of participants regarding their English language ability. The results are shown in Table 4.23.

 Table 4.23 Comparisons between scores of published essays and unpublished essays

 written by participants of different fields of study, gender, and English

 language ability

Field of	Gender	English Language	Pu	blished H	Essays	Unp	ublished	essays	t-value	p-
study		Ability	Ν	Mean	S.D.	Ν	Mean	S.D.	-	value
Computer-	Male	High	3	2.00	1.0	3	2.00	1.0	-	-
Related		Moderate	7	2.29	1.5	7	2.29	1.5	-	-
		Low	5	3.20	1.1	5	3.20	1.5	0.000	1.000
	Female	High	1	4.00	-	1	4.00	-	-	-
		Moderate	8	3.00	1.3	8	2.88	1.5	1.000	0.351
		Low	8	2.88	1.1	8	2.38	1.5	1.549	0.172
Non	Male	High	1	3.00	-	1	3.00	-	-	-
Computer-		Moderate	7	3.14	1.1	7	3.14	1.1	-	-
Related		Low	5	3.20	0.8	5	3.40	0.6	-1.000	0.374
	Female	High	17	3.58	0.8	19	3.76	1.1	-1.000	0.332
		Moderate	69	3.68	0.9	69	3.74	0.9	-1.271	0.208
_		Low	30	3.40	1.1	26	3.38	1.1	0.000	1.000

\* Mean score in point unit

\*\* Number of rated essays

From Table 4.23, comparisons can be presented in three groups; 1) comparisons that have identical mean score; 2) comparisons indicating that published

essays having more points over unpublished essays; and 3) comparisons indicating that published essays having lower scores than unpublished ones.

There are totally five comparisons showing that published and unpublished essays were graded with exactly the same point score. Notably, all of these comparisons that have equal scores only occur with essays written by participants with moderate and high (except for female in non computer-related field of study) English language ability, and not by those with low English language ability. It is possible to conclude that most participants with moderate and high English language ability tend to write published essays at the similar quality as unpublished essays. Participants with low English language ability, on the other hand, produced essays with different scores for published and unpublished essays.

Published essays written by participants with low English language ability tend to be rated higher scores than unpublished essays written by the same group of participants, particularly with female participants. Female participants with low and moderate English language ability gained scores for published essays of 2.88 and 3.00, which are higher than scores of unpublished essays of 2.38 and 2.88, respectively. In the same way, published essays from female participants with low English language ability in non computer-related field of study were graded with higher scores of 3.40 than 3.38 of unpublished essays.

Published essays which were graded lower than unpublished essays were written by participants in non computer-related fields of study who are female with moderate English language ability (3.68 and 3.74 points), female with high English language ability (3.58 and 3.76 points), and male with low English language ability (3.20 and 3.40 points).

For differences between scores, it can be concluded that low English language ability participants tend to earn higher scores for published essays than for unpublished essays. This is only with an exception for male participants in the non computer-related group. Participants in other groups either have the same scores in both essays or have more points in unpublished essays.

# 8) Summary of Essay Scores

With respect to essay scores, results have shown that participants get scores for published and unpublished essays differently. With regard to single variable of participants, published essays which were graded higher than unpublished essays were those written by participants in computer related field of study, female participants, and participants with low and high English language ability. When consider combinations of participants' variable, it can be found that published essays that received higher points were those composed by: (1) female participants in computer-related field of study; (2-3) low and moderate English language ability participants in computer-related field of study; (4) high English language ability participants in non computer-related field of study; (5) low English language ability female participants; and (6-7) low and moderate English language ability female participants in computer-related field of study; and (8) low English language ability female participants in non computer-related field of study. Published essays composed by participants in other groups either gained lower scores than the unpublished ones or were rated with the same point.

# **D)** Conclusion

This section summarizes comparisons for means of number of essay draft, essay length, and essay scores within variables, which have been presented in section 4.2.1 to 4.2.3, namely from Table 4.3 to Table 4.23.

 Table 4.24 Summary of comparisons between numbers of draft, length, and score of

 published and unpublished essays written by various groups of

 participants

		No.	Drafts	Lei	ngth	Sc	ore
Participants	Variables	P*	UP* *	Р	UP	Р	UP
Field of Study	Com-related (Com)	+	-	+	-	+	-
	Non Com-related (Noncom)	-	+	+	-	-	+
Gender	Male	-	+	-	+	-	+
	Female	+	-	+	-	+	-
English	High	-	+	-	+	+	-
Language	Moderate	-	+	+	-	-	+
Ability	Low	+	-	+	-	+	-
Field + Gender	Com-Male	+	-	-	+	0	0
	Com-Female	+	-	+	-	+	-
	Noncom-Male	-	+	-	+	-	+
	Noncom-Female	-	+	+	-	-	+
Field + English	Com-High	0	0	-	+	0	0
Language	Com-Moderate	+	-	-	+	+	-
Ability	Com-Low	+	-	+	-	+	-
	Noncom-High	-	+	-	+	+	-
	Noncom-Moderate	-	+	+	-	-	+
	Noncom-Low	+	-	+	-	-	+
Gender +	Male-High	0	0	+	-	0	0
English	Male-Moderate	-	+	-	+	0	0
language ability	Male-Low	+	-	-	+	-	+
	Female-High	-	+	-	+	-	+
	Female-Moderate	-	+	+	-	-	+
	Female-Low	+	-	+	-	+	-

# Table 4.24 (Continued)

		No. 1	Drafts	Lei	ngth	Sc	ore
Participants	Variables	P*	UP* *	Р	UP	Р	UP
Field + Gender	Com-Male-High	0	0	-	+	0	0
+ English	Com-Male-Moderate	0	0	-	+	0	0
Language	Com-Male-Low	+	-	-	+	0	0
Ability	Com-Female-High	0	0	0	0	-	+
	Com-Female-Moderate	+	-	+	-	+	-
	Com-Female-Low	+	-	+	-	+	-
	Noncom-Male-High	0	0	0	0	0	0
	Noncom-Male-Moderate	0	0	-	+	0	0
	Noncom-Male-Low	0	0	-	+	-	+
	Noncom-Female-High	-	+	-	+	-	+
	Noncom-Female-Moderate	-	+	+	-	-	+
	Noncom-Female-Low	+	-	+	-	+	-

Published essays

\*\* Unpublished essay

+ Essays have more numbers of draft, or more numbers of word, or higher score

Essays have fewer numbers of draft, or fewer numbers of word, or lower score

0 Published essays having equal numbers of draft, or number of words, or score to unpublished essays

In conclusion, results from the t-test analysis have shown that there is no significant difference between the length and the scores of published essay and unpublished essays. However, means numbers of draft have been found to be significantly different at .05 level with essays written by low English language ability participants, and the low English language ability female participants, in which published essays have more numbers of draft than unpublished essays.

It has also been found that in many occasions published essays do gain better results over the unpublished ones. Notably, the better results mostly come from the low English language ability group, especially female. Moreover, some positive results for published essays also occur with participants in the computer-related groups. This section has shown the comparison of three variables focusing on the identifying of differences that may occur between published and unpublished essays in relation to differences of participants' fields of study, within a given subcategory. In other words, it attempts to find which one (web publishing or non-publishing essays) has the stronger effect on a certain group of students. However, this does not include the comparisons of the same variables between and among different groups, namely, among the low, the moderate, and the high English language ability; male or female; and the computer-related and the non-computer related groups.

# 4.3 Comparisons among Participants' Variables

Section 4.2 has presented the numbers of draft, length, and scores of published essays comparing between published and unpublished essays. In this section, comparisons of essays will be performed among participants' variables separately. This is to identify how participants within field of study, gender group, and English language ability are compared to one another. For example, how many drafts of published essays did male participants write as compared to female participants, or how long did participants with low English language ability compose an unpublished essay compared to those with high English language ability.

#### 4.3.1 Fields of Study

As shown in Table 4.25, drafts, length and scores of both published and unpublished essays written by students of computer-related field of study are less than those written by non computer-related fields.

	t-test for Equality of Means							
Independent Samples Test	Т	46	Sig.	Mean				
	1	df	(2-tailed)	Difference				
Draft of published essays	-3.861	169	.000*	-1.39				
Length of published essays	-4.328	60.965	.000*	-62.84				
Score of published essays	-3.287	40.380	.002*	77				
Draft of unpublished essays	-4.731	169	.000*	-1.82				
Length of unpublished essays	-5.247	53.628	.000*	-69.45				
Score of unpublished essays	-4.634	157	.000*	97				

Table 4.25 Results of t-test Analysis of mean drafts, length and scores of essays

written by students of different fields of study

\* The mean difference is significant at .05 level.

Mean numbers of draft, lengths and scores of published essays written by participants of computer-related fields are less than the mean numbers of draft, length and scores of published essay written by those of non computer-related fields by 1.39 drafts, 62.84 words, and 0.77 points, respectively. Differences are even greater for the unpublished essays. Differences are obvious for unpublished essays. Namely, participants in non computer-related field of study generated 1.82 more drafts than those in computer-related field of study. They wrote 69.45 words longer, and obtained hither scores by .97 points. Overall, it appears that participants in non computer-related field of study composed essays with more drafts, more words, and earned more points than those in computer-related field of study for both types of essays.

### 4.3.2 Different Genders

Regarding participants' gender, it appears that female participants tend to revise more numbers of draft, with greater length, and were given better scores for their essays compared to male participants.

 Table 4.26 Results of t-test Analysis of mean numbers of draft, length and scores of essays written by students of different gender

Independent Samples Test	t-test for Equality of Means							
	Т	Df	Sig.	Mean				
	1	DI	(2-tailed)	Difference				
Draft of published essays	-4.634	169	*000	-1.72				
Length of published essays	-3.050	44.114	.004*	-51.07				
Score of published essays	-2.970	35.788	.005*	70				
Draft of unpublished essays	-3.701	169	.000*	-1.53				
Length of unpublished essays	-1.641	39.337	.109	-25.95				
Score of unpublished essays	-2.652	36.587	.012*	65				

\* The mean difference is significant at .05 level.

As shown in Table 4.26, there are significant differences between essays written by male and female participants, except for the length of unpublished essays. The negative values in the Mean Difference column represents the facts that essays written by male participants are less than those of female participants. For example, the mean difference of the draft of published essays is -1.72. It reflects that male participants write fewer numbers of draft of published essays than do female participants by 1.72 drafts on average. Likewise, the mean numbers of draft of unpublished essays written by male participants is being less than those written by female participants who composed 1.53 drafts. The mean scores of published and unpublished essays written by male participants are .70 and .65 points, respectively,

less than mean scores of those written by female participants. Finally, lengths of published and unpublished essays written by males are 51.07 and 25.95 words shorter than published and unpublished essays written by female.

# 4.3.3 English Language Ability

As there are three levels of English language ability of participants, the comparisons among them employ one-way ANOVA analysis. Table 4.27 presents the results of data analysis in six comparisons.

Table 4.27 Results of one-way ANOVA analysis of mean drafts, length and scores

		Sum of	df	Mean	F	Sig.
		Squares	ui	Square	1,	Sig.
Number of draft	Between Groups	13.80	2	6.90	1.874	.157
of published	Within Groups	618.62	168	3.68		
essays	Total	632.42	170			
Length of	Between Groups	26910.87	2	13455.44	1.657	.194
published essays	Within Groups	1339467.98	165	8117.99		
	Total	1366378.85	167			
Score of	Between Groups	2.46	2	1.23	1.117	.330
published essays	Within Groups	174.10	158	1.10		
	Total	176.56	160			
Number of draft	Between Groups	52.08	2	26.04	6.214	.002*
of unpublished	Within Groups	704.02	168	4.19		
essays	Total	756.11	170			
Length of	Between Groups	83614.23	2	41807.11	6.882	.001*
unpublished	Within Groups	990196.23	163	6074.82		
essays	Total	1073810.46	165			
Score of	Between Groups	3.12	2	1.56	1.249	.290
unpublished	Within Groups	194.92	156	1.25		
essays	Total	198.04	158			
		1 051 1				

among groups of different English language ability

\* The mean difference is significant at the .05 level.

As shown in Table 4.27, most of comparisons show no differences between essays written by different groups of participants, except for the numbers of drafts and length of unpublished essays. It has been found that the participants who have different English language ability seem to write unpublished essay at different numbers of draft and with different length.

In order to identify which groups of participants wrote different numbers of draft with greater length of unpublished essays, a further investigation analysis using Post Hoc test analysis was performed. The results are in the following section.

Table 4.28 shows that mean numbers of draft and length of unpublished essays written by participants in low English language ability group is less than those of participants with moderate and high English language ability.

**Table 4.28** Mean differences and p-values numbers of draft and length of unpublishedessays among groups of different English language ability revealed by PosHoc Test analysis, Scheffe

Dependent Variables			High	Moderate	Low
Number of draft of	High		-	.26	1.40
unpublished essays		p-value	-	.856	.024*
	Moderate	MD		-	1.14
		p-value		-	.007*
	Low	MD			-
		p-value			-
Length of unpublished	High	MD	-	26.90	66.34
essays		p-value	-	.324	.004*
	Moderate	MD		-	39.44
		p-value		-	.018*
	Low	MD			-
		p-value			-

MD = Mean difference

\* = Difference is significant at .05 level

Data form Table 4.28 shows differences in numbers of draft and length of unpublished essays among participants with different English language ability. Firstly, high English language ability participants produced more drafts of unpublished essays by .26 drafts, and composed more words by 26.90 words than moderate English language ability participants. The differences were not significant at .05. However, significant differences were found between high and low English language ability participants where high English language ability participants submitted unpublished essays with 1.40 more drafts and 66.34 words longer than low English language ability participants. Similarly, unpublished essays written by moderate English language ability participants significantly had more numbers of draft, by 1.14 drafts, and were significantly written with 39.44 more words than low English language ability participants.

### 4.3.4 Summary

In summary, comparisons presented in Section 4.3 have revealed differences in the numbers of draft, lengths and scores of essays written by participants in different fields of study, gender, and English language ability. Firstly, male participants wrote fewer numbers of draft, fewer words, and gain less points of essay than female participants. This is the same with participants in computer-related field of study compared to those in non computer-related fields. That is participants in the computer-related group generated fewer drafts, shorter essays, and receive lower scores than participants in the non computer-related group. Lastly, although participants with different levels of English language ability did not compose essays differently in many aspects, it has been found that low English language ability participants tend to write unpublished essays with fewer numbers of drafts and they gained less points for unpublished essay than those with moderate and higher English language ability.

### 4.4 Results from Interview

Students' interviews were conducted after participants had finished writing essays at the end of the semester. The interviews were semi-structured consisting of ten main points to elicit participants on how they composed essays and how they felt towards writing essays and Web publishing activities. Interview data are summarized below. In general, although most participants responded to writing published essays not much differently from unpublished essays, they would prefer to have Web publishing for English writing class instead of writing for an instructor. (See Appendix E for sample responses to interview questions.)

Regarding to the way participants write their two essays (Question 1 and 2), it has been found from the interview that most interviewed participants stated that they did not write the published essay differently from unpublished essay. That is, there was no difference in the way they composed the essay, either it was to be Web published or not to be Web published. Actually, they generated both essays at the same time with no preference of one over the other. Moreover, they said that they paid attention to both essays equally. Most, if not all, students said that they had to get both essay done in the same way, and they pay equal attention to both too. They gave the reason for doing this that, both essays were equally important as they both had equivalent marks and both essays were what the teacher told them to do. In addition, the two essays were all what they had to do as class assignments with no exception.

When asked about topic of essays (Question 3), most students said that the two essays were not much different in terms of their difficulties, contents, and preferences. About 86 percent of the interviewees agreed that the two topics were so closely related in contents that they can use some information in one topic to apply with the other topic. Furthermore, the two topics were general knowledge that did not require special understanding of the context. The only difficult thing about the topic was that they had to find exact words to write in English what they had already known in Thai.

In response to Question 4 and 5, more than 90 percent of the interviewees admitted that they felt that writing was a very difficult task. They said that they never wrote such essay in this format before. What they used to write was only a few sentences, and not in the form of essay writing. They felt worried about their ability to write. Most of them thought that they could not finish the essays. However, all interviewees said that they were very proud of their essays, even if they claimed that their essays were not of as good quality as what they would have expected. As they claimed, they had never written something in the format of essay. And that, they did not think that they could write something that anyone could understand in English, but they finally did.

When asked about how they feel towards having essay Web published and unpublished in Question 6 through 9, over 95 percent of students preferred having their essays published on the Web. Some of them even wanted both essays to be published on the Web. They claimed that it was better to have someone else see their work other than the teacher. Even if they did not know of who would read their work, they were sure that someone on the Web would see them. It would not be possible for others to read if the essay is unpublished. Some of the students suggested that it might be better if the Web pages could have some Webboard for readers to put comments on their writing. They would not be afraid of feedback because at least they know how people see their work.

Finally, most students (95 percent) said that they liked to see their essay on the Web. Although they did not express great willingness to see the published essays, they admitted that it would be good if they could put one on the Website. Nevertheless, they all agreed that they would prefer to have writing class consisting of Web publishing instead. There were three suggestions for the writing courses in the future. First, they wanted to produce their web pages with some beautiful pictures and colors. Next, they wanted to have some webboard or feedback from the reader. And finally, they would suggest the future courses to publish students' essays on the Web instead of being read by the instructor, and returned to them.

#### **4.5 Conclusion**

Chapter 4 has presented results of study from the analysis of essays and the interview. Three major points can be made from the results. Firstly, regarding the essay writing, participants who wrote more for published essay than unpublished are those female participants with low English language ability in both fields of study. They wrote more drafts, longer essays, and gain more scores for the published essays. Secondly, there are differences in the way participants in each variable group composed essays. That is, female generated more numbers of draft, longer essays, and received higher essay scores than male participants. Low English language ability

participants composed more for unpublished essays than moderate and high English language ability participants, and non computer-related participants wrote more than those in computer-related field of study. Finally, the interview data suggest that although most participants treated the two types of essay equally, they preferred Web publishing to be included in their future writing classes.

## **CHAPTER 5**

## **DISCUSSION AND CONCLUSION**

This chapter discusses the results of the study. The summary of all results is provided in the Summary of the Result section. The discussions of the results will be made according to participants' fields of study, gender, and English language ability. The section on the Remarks of the Results presents both the expected and unexpected findings of the study. Finally, there will be the implications and recommendations for future studies as well as limitations of the study.

### **5.1 Summary of the Result**

The results of the study are summarized based on the two research questions. As mentioned in Chapter 3, there are two research questions for this study.

**Question 1.** Are there any differences between students' motivation concerning writing for Web publishing and writing not for Web publishing?

**Question 2:** Does Web publishing motivate students with different English language ability, gender, and field of study?

In response to these questions, this section summarizes the main results to claim that there are some differences between students' motivation when writing for Web publishing and writing not for Web publishing, and the effects are on certain groups of participants. The following is the summary of the results.

The results from the overall comparisons of means show that number of drafts, length, and scores of Web published essays are not significantly different from those of unpublished essays. As shown in Section 4.1.1, it is obvious that the numbers of draft and scores are different only by .01 and .02, respectively. In the comparison of the length, although Web published essays are three words longer than unpublished essays, the standard deviations are found to be as large as 90 words. Moreover, the t-values in Section 4.1.2 in all three comparisons are higher than .05. Therefore, overall results show that, when all essays are compared, Web published and unpublished essays are not different in terms of numbers of draft, length, and scores.

However, when comparing Web published essays against unpublished essays according to the participants' field of study, gender, and English language ability, there are some degrees of differences between the two types of essays. Some groups of participants write better Web published essays than unpublished essays.

Firstly, comparing the numbers of essay draft, low proficiency participants write more numbers of drafts for Web published essays than participants in other levels of English language ability. Although non computer-related participants write more drafts for published essays, it has been found that low and moderate English language ability participants write more drafts for Web published. Likewise, although female participants have been found to write more drafts for Web published essays, it has been found that male participants also write more Web published essay drafts, for example, those with low English language ability and those in non computer-related field of study. Overall, low English language ability participants write more drafts for write more drafts for write more drafts for bublished essays are been found that more Web published essays drafts for example, those with low English language ability and those in non computer-related field of study. Overall, low English language ability participants write more drafts for Web published essays write more drafts for the bublished essay drafts for example, those with low English language ability participants write more drafts for Web published essay drafts for example, those with low English language ability participants write more drafts for Web published essay drafts for example, those with low English language ability participants write more drafts for Web published essay drafts for the field of study.

Web published essays, whether they are male or female, or they are in computerrelated or non computer-related fields of study.

Secondly, regarding to essay length, English language ability and gender are variables which show that participants write Web published essays longer than unpublished essays. That is, participants with low and moderate English language ability as well as female participants write longer Web published essays. In other words, it has not been found that male participants and participants with high English language ability write longer Web published essays than the unpublished ones.

Finally, in terms of essay scores, better scores have been found to be associated with field of study and gender of participants. Namely, participants in computer-related field of study are rated higher scores for Web published essays than for unpublished essays. Furthermore, only female participants obtain higher scores for Web published essays than unpublished ones. In contrast to the numbers of essay draft and essay length, English language ability is not a good predictor for higher scores because it has been found that Web published essays gain higher scores in all levels of English language ability.

In summary, participants with low English language ability are motivated to write more numbers of draft for Web published essays than unpublished essays, compared to other groups of participants. With essay length, female participants, especially those who have low and moderate English language ability, are found to write longer Web published essays. However, better scores are rewarded to essays written by participants in computer-related field of study.

Further analysis of essays comparing among participants' variables in section 4.3 has shown some differences in numbers of essay draft, length, and scores. Firstly,

when comparing essays according to fields of study, participants in non computerrelated field of study write more drafts, more words, and obtain more scores for both Web published and unpublished essays than participants in computer-related field of study. Next, regarding to gender, female participants write longer essays than male participants. Lastly, participants with high proficiency write more drafts and more words for unpublished essays than those with moderate and low English language ability

From the results shown above, there are some points that can be made about the effects of Web publishing on the students' motivation to write. Overall, Web publishing motivates students to write at some degree. That is, Web publishing has some effects on students' motivation to write in certain aspects according to students' fields of study, gender, and English language ability.

### 5.2 Discussion

Section 5.1 has shown that Web publishing has some motivational effects on students' writing. However, not all participants are motivated to write better for Web published essays, in terms of numbers of drafts, length, and scores. When participants' variables are considered, it has been found that numbers of Web published essay draft are found to be higher when written by participants with low English language ability, while length of Web published essays are higher with participants who have low and moderate English language ability, and who are female. However, Web published essays which have higher scores than unpublished essays are written by female participants, and by participants in computer-related field of study.

# 5.2.1 Motivational Effect of Web Publishing on Students with Different Fields of Study

Web publishing has a positive effect on participants in different fields of study in different ways. Firstly, Web publishing motivates students in non computer-related fields of study to write more drafts for published essays than unpublished essays. That is, numbers of draft, length, and scores of published essays were lower than those of unpublished essays. With regard to essay length, Web publishing motivates students in both fields of study, computer-related and non computer-related fields of study, to write longer published essays. Finally, Web publishing may have a motivational effect on students in computer-related field of study to write better essays that received higher scores on published essays than unpublished essays.

It may be because writers in computer-related field of study were really motivated to generate more drafts. That is, they were motivated to write more drafts because they were provided interesting challenge for real audiences on the Internet. Recalling from the interview data, students mentioned that they would like to put their essays on the Web, even if they did not know who would read their essays.

# 5.2.2 Motivational Effect of Web Publishing on Students with Different Gender

With gender, female participants wrote more drafts of published essays than unpublished essays. Female participants also composed more words for published essays than unpublished essays. However, both male and female participants, earn fewer points for published essays than for unpublished essays. Although the study did not show significant differences in the essays drafts, length, and scores, it could be said that they have demonstrated some differences in motivation toward their writing task. This may be due to the fact that students' motivation is different according to gender. As Lee (2000) stated, males showed stronger behavioral and motivational learning strategies in the Internet-based cyber-learning environment. In this case, male showed higher motivation in the text encoding strategies. However, females have also been found to show stronger motivation to writing including self-efficacy, value of writing and task goals, as well as received higher grades in language arts. It could be that female writers are more motivated to write more drafts than male writers.

# 5.2.3 Motivational Effect of Web Publishing on Students with Different English Language Ability

It has been found that low English language ability students have been affected the most by Web publishing. Firstly, they generated more drafts for published essays than for unpublished essays. With regard to numbers of word per essay, low, and moderate English language ability participants composed more words for published essays than for unpublished essays. Finally, participants with low English language ability tend to get higher scores for published essays than for unpublished essays.

For low English language ability participants, it can be explained that they have difficulties in second language as well as motivation. According to Weigle's (2002) study (see Section 2.2.2 for discussion), low English language ability writers usually lost motivation to write as they use up their memory to explore choices of

lexicon before they can put down ideas on the paper. They may focus more on language than content. In the same amount of time and equal marks for both essays, the finding that participants with low English language ability choose to write more drafts for published essay obviously indicates that they are more motivated by Web publishing. It can be concluded that, while more proficient participants can manage to treat both essays equally, in writing equal numbers of draft, low English language ability students choose to write more for published essays. It means that, Web publishing has more motivational effect on less proficient students than high proficient students.

Provided that the English language ability students are given interesting and real writing challenges by including a real audience, Gebhard (1996) claimed that these students "might respond differently to a real audience, such as a pen pal, a secret journal reader, or newsletter readers (p: 237)." In this study, it may be that these low English language ability writers were provided with real audiences, or at least the sense of audiences on the Internet, that they changed their behavior of writing. The more numbers of drafts of the essay they wrote for the Web publishing may be the reflection of how they planed to get their essays done as good as they could at the beginning.

### 5.3 Remarks of the Non Significance in Results

This study has expected higher numbers of draft, numbers of word, and scores for all Web published essays. However, the results have shown that only some participants managed to produce published essays with more numbers of draft, greater length, and higher scores than unpublished ones. It means that there have been many occasions that Web publishing can be used either effectively or ineffectively. There is some useful information from the interview that could explain the reason why students did not write better for Web published essays.

First, students see two essays as equivalent in terms of marks and importance. Many students replied to the question whether they pay attention to one essay over the other that they treated both essays in the same way along the writing process – from writing outline through to the finishing of the final draft. Secondly, students think that writing two essays is a compulsory task. There is no reason, other than to publish on the web, to differentiate between the two essays, or to treat them differently. For this reason, there is an explanation from Hayes' (1996) model (See Figure 2.1). That is, the students may have chosen not to write one essay better than another, and set goal for doing well in both.

Next, students may be influenced by the individual's subjective values and norms. In the goal setting stage of the process model of L2 motivation, L2 students may have developed values and norms as a reaction to past experiences (Dornyei, 2001). In the interview, students responded that they felt that the essay writing tasks were difficult for them that they might not do well for the assigned tasks. They express their past writing experiences that they had never done something like that before. They believe that they would not succeed in the task because their past experiences may influence their motivation to write better essays.

Finally, despite the results that students did not write better when they know that one of their essays was going to be published on the Web, most students desire or prefer to have their essays published on the Web instead of being read only by the instructor. Some students even wanted both of their essays published. Others wished to receive feedback from the readers. For this reason, the study may not be conclusively able to summarize that Web publishing does not motivate students to write.

### 5.4 Implications and Recommendations for Future Studies

5.4.1 Teachers of writing may use Web publishing in teaching composition to enhance students' motivation. Although the results did not fully claim the enhancement of motivation through Web publishing at all occasions, there were some interesting findings on how students felt toward Web publishing over writing for only their teacher. The way in which Web publishing is to be used is subjected to circumstances. Teachers should adapt the methodology to suit their students and school environments.

4.5.2 Web publishing may be particularly benefit students with low English language ability, and those who are female. For the colleges or schools where most students are not majored in English, most students may be considered low English language ability in English. These students usually have low motivation in writing English. Therefore, Web publishing may benefit most of them.

4.5.3 Teachers may allow students to create their own pages using some software that is easy to use and does not require much time to learn. This may help improve the motivation to write as they not only write the essay but also using English in creating the webpage at the same time.

4.5.4 Researchers should consider alternative design of study in the way to avoid students having to write two topics at the same time. For example, participants may be divided into to groups, where the experimental group writes for Web

publishing and the controlled group does not write for Web publishing. This may result in better distinction between motivation of students who write only for Web publishing and those who do not.

### 4.6 Limitations of the Study

Although the current study reveals that Web publishing motivates some groups of students to write, it has some limitations concerning location of the college. And data collecting tools used. Firstly, being a private college located in the northeastern part of Thailand may represent different characteristics of students such as background knowledge, relative language English language ability and other personal factors that may be different from students in other parts of Thailand. Apart from that, the setting of English teaching and learning at the college may also be different as well. Secondly, this study employs numbers of drafts, length, and scores of essays and semi-structured interviews as means of data collecting instruments. It would be different if other data collecting instruments had been used. For example, students' self-reports, other properties of essays such as numbers of words in more subcategories (numbers of words per sentence, per paragraph, number of mistakes in the essays, etc), or motivation survey questionnaires accompanying semi-structured interview would yield different results. All together, results from using Web publishing to motivate students found in this study need to be used with considerations of other factors that may affect students' motivation in different settings.

#### **5.4 Conclusion**

This study has revealed that for the current design of the study, where students are required to write two essays at the same time but with different purposes, not all students get motivated to write their essays according to the purposes. In other words, Web publishing enhances certain groups of students in the present research. To answer the questions, Web published essays were compared against unpublished essays in terms of numbers of drafts, lengths (expressed by numbers of words per essays), and essay scores. Interviews were also conducted for qualitative data. The study also found that Web publishing is more beneficial to less English language ability L2 writers. The data from essay analyses showed some differences in numbers of drafts, numbers of words, and scores of essays written by participants with low English language ability, especially female in both fields of study. Interview data; however, indicate that majority of students preferred to have their essays published on the web rather than not to be published. Nevertheless, many aspects are needed to be investigated to fully understand to whom and in what circumstances does Web publishing enhance students' motivation to write.

REFERENCES

### REFERENCES

- Anton, M. (1999). The discourse of a learner-centered classroom: Sociocultural perspectives on teacher-learner interaction in the second-language classroom. *The Modern Language Journal*, *83*(*3*), 303-318.
- Barr, M, E. (1999). *The motivational effect of web publication on the writing process*.M.A. Thesis in Education, Biola University.
- Beach, R. and Lundell, D. (1998). Early adolescents' use of communication in writing and reading.. In D. Reinking. et al (Ed.), *Handbook of literacy and technology* (93-112). Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Belcher, D. (1999). Authentic interaction in a virtual classroom: Leveling the playing field in a graduate seminar. *Computers and Composition*, *16*(2), 253-267.
- Bereiter, C. and Scardamelia, M. (1987). *The psychology of written composition*. New Jersey: Lawrence Erlbaum Associates.
- Braine, G. (1997). Beyond word processing: Networked computers in ELS writing classes. *Computers and Composition*. 14: p.45-58.
- Braine, G. (2001). A study of English as a foreign language (EFL) writers on a localarea network (LAN) and in traditional classes. *Computers and Composition*. 18: p. 275-292.
- Breland, H., Lee, Y. and Muraki, E. (2004). *Comparability of TOEFL CBT Writing Prompts: Response Mode Analyses*. TOEFL Research Report No. RR-75.

- Breland, H., Lee, Y., Najaran, M. and Muraki, E. (2004). An Analysis of TOEFL CBT
  Writing Prompt Difficulty and Comparability for Different Gender Groups.
  TOEFL Research Report No. RR-76.
- Brown, J.D. (1988). Understanding research in second language learning. New York: Cambridge University Press.
- Bruning, R., & Horn, C. (2000). Developing Motivation to Write. *Educational Psychologist*, 35(1), 25-38.

Calkins, L.M. (1994). The art of teaching writing. Portsmouth, NH: Heinemann.

- Clachar, A. (1999). It's not just cognition: the effect of emotion on multiple-level discourse processing in second-language writing. *Language Science*. Vol. 21. p. 31-60.
- Costello, S. (2000, June 26). *Billion-page Web catalog cited*. Retrieved April 1, 2002, from

http://iwsun4.infoworld.com/articles/hn/xml/00/06/26/000626hngoogle.xml.

- Crookes, G. and Schmidt, R. W. (1991). Motivation: reopening the research agenda. *Language Learning*. 41/4, 469-512.
- Dornyei, Z. (2001). *Teaching and Researching Motivation*. England: Pearson Education Limited.
- Dornyei, Z. (1994). Motivation and motivating in the foreign language classroom. *The Modern Language Journal*, 78 (3), 273-284.
- Dornyei, Z. and Otto, I. (1998). Motivation in action: A process model of L2 motivation. *Working Papers in Applied Linguistics*. (*Thames Valley University, London*) 4:43-69.

- Edelsky, C. and Smith, K. (1989). Is that writing or are those marks just a figment of your curriculum. In G. Manning & M. Manning (Eds.), *Whole language: Beliefs and Practices. K-8* (pp. 183-193). Washington, DC: National Education Association.
- Friedman, A. A., Zibit, M, and Coote, M. (2004). Telementoring as a collaborative agent for change. *Journal of Technology, Learning, and Assessment, 3*(1). Available from http://www.jtla.org
- Gardner, R.C. (1979). Social psychological aspects of second language acquisition.In H. Giles and R. St. Clair (Eds.) *Language and Social Psychology*. Oxford: Blackwell, 193-220.
- Gardner, R.C. and Lambert, W.E. (1972). Attitudes and Motivation in Second
- Gebhard, J.G. (1996). Teaching English as a foreign or second language: A selfdevelopment and methodology guide. Michigan: The University of Michigan Press.
- Hawthorne, S. (2005). Engaging reluctant writers in secondary school English. *English Online*. Available [Online]: Retrieved May 19, 2005 from: http://english.unitecnology.ac.nz/resources/resources/engaging/ developing.html
- Hayes, J. R. (1996). A new model of cognition and affect in writing. In C. M. Levy &S. Ransdell (Eds.), *The science of writing* (pp. 1-30). Hillsdale, NJ: Erlbaum.
- Hayes, J. and Flower, L. (1980). Identifying the Organization of Writing Processes. *Cognitive Processes in Writing*. Ed. Lee Gregg and Erwin Steinberg.
  Hillsdale, NJ: Erlbaum.

High Tech Dictionary (2007). Definition for: Web publishing. Available online.

Retrived: April 24, 2007 from

http://www.computeruser.com/resources/dictionary/definition.html

- Kern, R.G. (1995). Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *Modern Language Journal*, 79(457-476).
- Kitao, K. (2002). Teaching culture awareness through writing: Student webpage projects. In P. Lewis (ed). *The changing face of CALL: A Japanese perspective.* Toyo: Swets & Zeitlinger Publishers.
- Karchmer, R.A. (2001, May). Gaining a new, wider audience: Publishing student work on the Internet *Reading Online*, 4(10). Available: http://www.readingonline.org/electronic/elec\_index.asp?HREF=/electronic/k archmer/index.html
- Kramsch, C., A'Ness, F., and Lam, W. S. E. (2000). Authenticity and authorship in the computer-mediated acquisition of L2 literacy. *Language Learning and Technology*, 4 (2), 78-104.
- Lee, K. (2000). Internet Energizing the ESL/EFL classroom through internet activities. *The Internet TESL Journal*, Vo. VI. No. 4, April 2000. http://www.aitech.ac.jp/~iteslj/articles/Lee-InternetActivities.html.
- Lee, Y.W., Breland, H. & Muraki, E. (2004). Comparability of TOEFL CBT Writing Prompts for Different Native Language Groups. (TOEFL Research Report No. 77). Princeton, NJ: ETS.
- Mitchell, T.R. (1982) *Motivation: New directions for theory, research and practice. Academy of Management Review*, 7, 80-88.

Muangsamai, P. (2003). EFL learning/writing development in the Internet environment: A case study from pre-medical students' perspectives.
Dissertation. The Ohio State University.

National Center for Education Statistics. (2000, March). *Internet access in U.S. public schools and classrooms: 1994-99.* Washington, D.C.: U.S. Department of Education. Available:

http://www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000086

- O'Malley, J. M. and Pierce, L. V. (1996). Authentic assessment for English language learners: practical approaches for teachers. Addison-Wesley Publishing Company.
- Pajares, F. (2003). Self-efficacy beliefs, motivation, and achievement in writing: A review of the literature. *Reading and Writing Quarterly*, 19, 139–158.
- Pajares, F. and Valiante, G. (2001). Gender differences in writing motivation and achievement of Middle School students: a function of gender orientation? *Contemporary Educational Psychology*. 26, 366-381.
- Plotts, C. H. (2000). An Author in Every Student: Publishing K-12 Work on the Web. Issues in Education & Technology. Number 3.
- Reid, J. M. (1993). Teaching ESL writing. New Jersey: Prentice Hall Regents.
- Riley, R.W. and Linda G. R. (December, 2000). "Putting a World-Class Education at the Fingertips of All Children: The National Educational Technology Plan." *e Learning*. Washington, D.C: U.S. Department of Education.
- Roscoe, J.T. (1975). Fundamental research statistics for the behavioral science. New York: Holt, Rinehart and Winston, Inc.

- Schofield, J. W. and Davidson, A.L. (2002). *Bringing the Internet to School: Lessons: from an Urban District*. San Francisco, CA: Jolley-Bass.
- Shetzer, H. and Warschauer, M. (2000). An electronic literacy approach to networkbased language teaching. In M. Warschauer and R. Kern (Eds.), *Network-based language teaching: Concepts and practice*. Cambridge: Cambridge University Press.
- Silva, T. (1993). Toward an understanding of the distinct nature of L2 writing: The ESL research and its implications. *TESOL Quarterly*, 27, 657-677.
- Sivyer, D. L. (2005). The effect of positive/negative feedback awareness on selfefficacy and writing performance. MA Thesis in Education, The Florida State University.
- Sotillo, S. (2000). Discourse functions and syntactic complexity of synchronous and asynchronous communication. *Language Learning & Technology*, 4(1), 82-119.
- St.John, E. and Cash, D. (1995). Language learning via e-mail: Demonstrable success with German. In M. Warschauer (Ed.), *Virtual connections: Online activities* and projects for networking language learners. Honolulu, Hi: University of Hawai'i, Second Language Teaching and Curriculum Center.
- Warschauer, M. (1995). *E-mail for English teaching. Alexandria*. VA: TESOL Publications.
- Warschauer, M. (1996). Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal 13*(2), 7-26.
- Weigel, V. B. (2002). *Deep learning for a digital age: technology's untapped potential to enrich higher education* (1st ed.). San Francisco: Jossey-Bass.

Weigle, S. C. (2002). Assessing Writing . In Alderson, J. C. and Bachman, L. F. (eds.), *Cambridge language assessment series*. Cambridge: Cambridge University Press.

White, R. and Arndt, V. (1991). Process writing. Pearson Education Ltd.

- Williams, M. and Burden, R. (1997). Psychology for Language Teachers. Cambridge: Cambridge University Press.
- Wright, J. (2002). Finding the Spark: More Ideas for Building Student Motivation.
  Available [online], Retrieved: March 14, 2006, from: http://www.interventioncentral.org
- Xitex WebContent M1. (2005). Web Publishing. Available online. Retrived April 24, 2007 from http://webcontent-m1.com/m1/en/support/Library/glossary.html

APPENDICES

# **APPENDIX A**

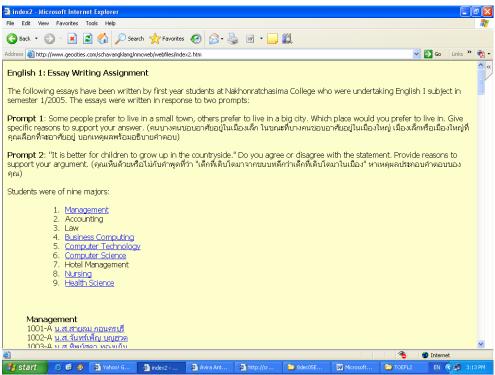
# Project Outline: Writing Activities

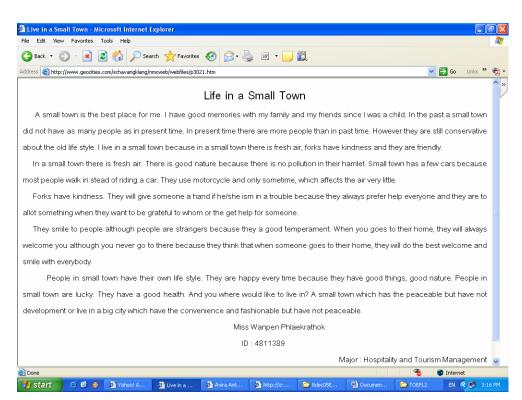
Week	Writing activities	Writing assignment
1	Orientation week	
	- Pretest (English language ability	
	Test)	
2	Introduction to essay writing	
	- Models of an essay	
	- Essay outline	
3	Topic selection	Project Work
	- Choosing essay prompts	- Essay A-B outline
	- Assigned Web topic	
4	Discussion of the essay outline	- Essay A-B First draft
5	Submission of essays' first draft	- Teacher reading essays' first
6	-	drafts
7	Discussion/feedbacks of essays' first	- Essay A-B Second draft
	draft	
8-9	Midterm test	
10	Submission of Essays' second draft	- Teacher reading essays' second
		draft
11	-	
12	Discussion/feedback of essays' second	- Essay A-B final draft
	draft	
13	- Submission of essays' final draft	- Teacher approval for final
		draft's publishing
14	- Typing final draft	
15	- Converting .doc files to .htm	
16	- Publish Final Draft on the Web	
17-18	Examination	

## **APPENDIX B**

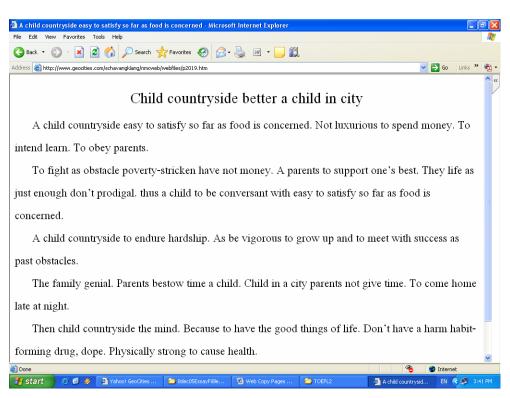
### Sample Web Published Essays

#### The webpage

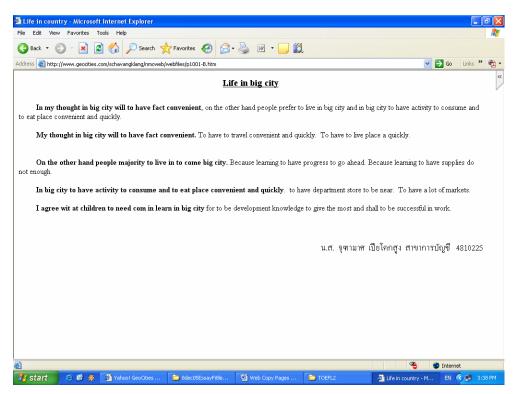




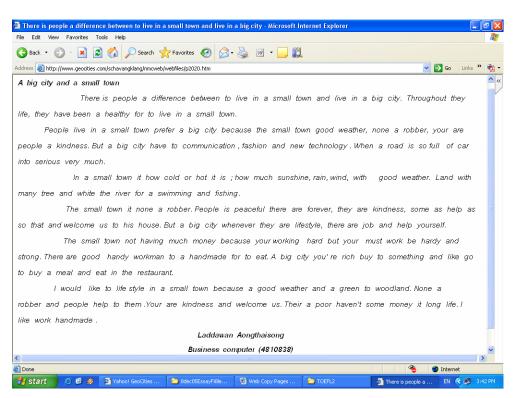
Sample essay from a non computer-related high ability student



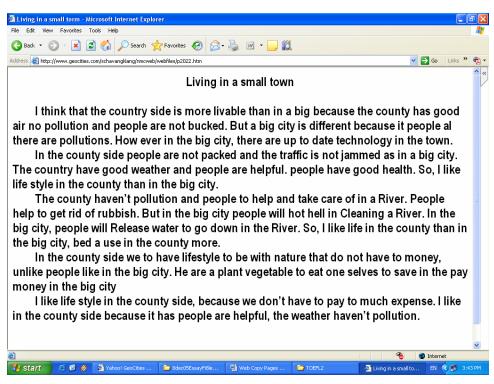
Sample essay from a non computer-related moderate ability student



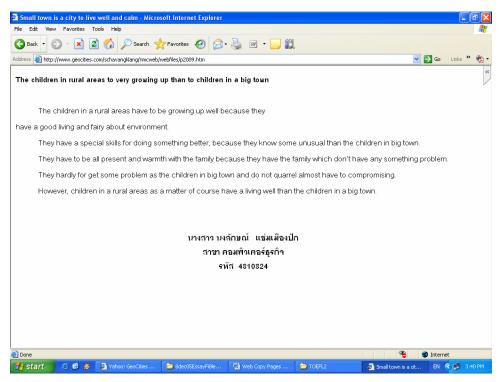
Sample essay from a non computer-related low ability student



Sample essay from a computer-related high ability student



Sample essay from a computer-related moderate ability student



Sample essay from a computer-related low ability student

## **APPENDIX C**

## Holistic Scoring Rubric for Writing Assessment with ELL Students

Level 6	Conveys meaning clearly and effectively
	• Presents multi-paragraph organization, with clear introductions,
	development of ideas, and conclusion
	Shows evidence of smooth transitions
	• Uses varied, vivid, precise vocabulary consistently
	Writes with few grammatical/mechanical errors
Level 5	Conveys meaning clearly
	<ul> <li>Presents multi-paragraph organization logically, though some parts</li> </ul>
	may not be fully developed
	• Shows some evidence of effective transitions
	• Uses varied and vivid vocabulary appropriate for audience and
	purpose
	• Writes with some grammatical/mechanical errors without affecting
	meaning
Level 4	• Expresses ideas coherently most of the time
	• Develops a logical paragraph
	• Writes with a variety of sentence structures with a limited use of
	transitions
	• Chooses vocabulary that is (often) adequate to purpose
	• Write with grammatical/mechanical errors that seldom diminish
	communication
Level 3	Attempts to express ideas coherently
	Begins to write a paragraph by organizing ideas
	Writes primarily simple sentences
	Uses high frequency vocabulary
	• Writes with grammatical/mechanical errors that sometimes diminish
	communication
Level 2	Begins to convey meaning
	Writes simple sentences/phrases
	Uses limited or repetitious vocabulary
	• Spells inventively
	• Uses little or no mechanics, which often diminished meaning
Level 1	Draws pictures to convey meaning
	<ul> <li>Uses single words, phrase</li> </ul>
	<ul> <li>Copies from a model</li> </ul>
L	

Developed by ESL teachers, Prince William Country Public Schools, Virginia, cited in O'Malley and Fierce (1996)

## **APPENDIX D**

### **Sample Interview Questions**

- 1. How did you write the two essays?
- 2. What do you think about the two essay topics?
- 3. How did you pay attention to writing Essay 1 and Essay 2?
- 4. How did you feel when you first assigned the writing task?
- 5. How did you feel about your work now, as it is finished?
- 6. How did you feel like writing when you know that one essay was going to be web published and the other was not?
- 7. What would you prefer writing with Web publishing and writhing without Web publishing?
- 8. How do you feel when you see you essay published on the Web?
- 9. What would you suggest for writing classes in the future?

### **APPENDIX E**

### Sample Interview Responses

Followings are examples of students' responses from the interview. It could be concluded that students, regardless gender, fields of study, and English language ability revealed similar information in most questions. The main point is that although they wanted to have both essay as good quality, they still preferred prefer to have their essays published on the Web. The summary of the results is outlined in four categories of questions below.

Category 1: Asking students about general background to essay writing

The first two questions ask about general background to essay writing. Firstly, Question 1 aims to elicit background to students' writing strategies. Most students use the same writing strategies in while they write the two essays. Therefore, the common response from students is usually "I started writing in simple Thai, and then translate into English sentences.", or" "The contents of topic one is not different from topic two. In fact, they can relate to each other." Most of them use Thai-English dictionary to find English words from Thai entries. Students usually encounter the same problem that they cannot always find the correct words to write as they want, as one student says:

"I had trouble finding suitable words I needed in my essays."

In terms of importance of the two essays, students give similar answers that the see two topics as equally important. The reason is that they both have marks, and they are what the teacher asks them to do.

"I have to do well for both essays because they have equal marks."

"I had to try to do well in both essays because the teacher wants me to write."

**Category 2**: Asking students to about difficulty and differences between topic 1 and topic 2

It has been found from Question 2 that students do not think that topic 1 and topic 2 are different. They are also not too difficult to write, too, because they are all about general knowledge. One student, as for many, answered:

"The two topics are not different in difficulty of the content".

**Category 3**: Asking students' feeling before and after writing

In this category of questions, students' responses show that many of them feel worried and think that the writing task is difficult at the beginning because they have not written essays with many paragraphs. In contrast, when they have finished their final draft, they feel proud of their work that they have finally done it.

"I feel relief after the final draft is completed, and I feel proud that I have finally done the essays myself."

"At the beginning I feel very incompetent, and worried while I write, but when I finished my essay, I feel proud."

Category 4: Asking student if they like Web publishing

It is quite obvious that all students prefer Web publishing, more or less. They think that it would be better for many other people to see their work, and probably contribute some suggestion to improve their writing. Some students hope that their work may be useful for people who need them. All answers show that students like Web publishing.

"If I can choose, I would prefer to put my work on the Web to be view by other students."

"I am not afraid of people reading my essay on the Web."

"I feel proud that my essay is published on the Web, but I had to write both essay as good as each other."

"I like Web publishing."

"I feel different with Web publishing, but I want to have both essays published on the Web, or put the better one on."

"If I can choose, I would choose Web publishing for my essays because other people will see them."

"I don't feel afraid of people critique on my writing that is put on the Web."

"If I publish my essay on the Web, there will be more people to see it."

"Web publishing is a good thing because it helps me practice writing skills, and I know more" vocabulary. Publishing on the Web is also useful because reader may help improve my writing."

## **CURRICULUM VITAE**

Mr.Sorachai Chavangklang was born on July 19, 1972. He graduated in 1996 from Charles Sturt University, Australia, majored in Environmental Science (Hons.). Since he graduated, he has been working as a teacher mostly teaching English at vocational schools and private college. Currently, he is working as an English teacher at Nakhonratchasima College.