

# **The Development of Web-Based Instruction in English Paragraph Writing for Undergraduate University Students**

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## **ABSTRACT**

The objectives of this experimental research were threefold: first, to develop a web-based instruction in English paragraph writing for undergraduate university students, second, to compare learning achievements on paragraph writing of students who received tutoring via web-based instruction with the achievements of students who received tutoring via conventional face-to-face instruction, and third to evaluate students' attitudes towards learning English paragraph writing via web-based instruction. The population consisted of 324 first-year students who enrolled in General English II in the second semester of the academic year 2012 at Thaksin University, Thailand. A sample group of 100 students was drawn from this population by the use of simple random sampling, and then divided into a control group and experimental group, each consisting of 50 students. The experimental group received the web-based instruction, while the control group received the conventional face-to-face instruction. The results revealed that 1) the efficiency value of the web-based instruction lessons was 80.03/80.38. 2) The learning achievement on paragraph writing among students using the web-based instruction was higher than those taught through the conventional face-to-face instruction at a significance level of 0.05. 3) Students had very good attitudes towards learning English paragraph writing via web-based instruction with an average score of 3.72.

**KEYWORDS:** Web-based instruction, English paragraph writing

## Introduction

### *Rational for the study*

Writing is extensively used as a tool for communication in all manner of human endeavour, be it learning, employment, social interaction or leisure activity, and ever more so in the information age with the explosion of new knowledge. According to Weigle (2002), writing is considered to be an invaluable tool for people of all classes, especially the upper-class and well-educated people of all occupations all over the world. This is because it provides a structured way of communicating and this is also important for learning. Hairston (1986, p. 2-3) and Rao (2007) pointed out that writing enhances people's thought processes and the organizing of ideas, developing the ability to summarize and criticize. This helps in seeing relationships including the arrangement of thoughts and in clarifying concepts. It also helps people to solve problems and enables them to be more active learners rather than merely passive receivers of information. This is in line with Mekheimer (2005) who indicated that writing enhances thinking and learning, motivates communication and makes thoughts available for reflection. When thoughts are written down, ideas can be investigated, reconsidered, superseded, rearranged, and changed.

Writing proficiency has always been an important component of study for Thai language learners and today it has become increasingly important. Thaksin University has realized the importance of English writing skill, so writing courses have been included into several undergraduate curricula. The aim is the development of high levels of competence in writing English so that learners can effectively apply their writing skill in real life situations especially at their work place. Moreover, students need to master writing proficiency as it has an important place in classrooms teaching English as a Second Language (ESL) and English as a Foreign Language (EFL) in order to facilitate the learning process. According to Raimes (1983, p. 6),

First, writing reinforces the grammatical structures, idioms and vocabulary that we have been teaching our students. Second, when our students write, they also have a chance to be adventurous with the language, to go beyond what they have just learned to say, to take risks. Third, when they write, they necessarily become very involved with the new language: the effort to express ideas and the constant use of eye, hand and brain is a unique way to reinforce learning... The close relationship between writing and thinking makes writing a valuable part of any language course.

In terms of learning and teaching methodologies, current interest has shifted from the traditional approach to writing which focuses on aspects of proper grammar, spelling, punctuation, and other conventions, to the process approach. Flower and Hayes (1981 cited in Unger & Fleischman, 2004, p. 90-91) indicated that the writing process is one effective way to teach students to be proficient writers. The process approach emphasizes the series of activities involved in the creation of written work. This approach encourages learners to manage the complexity of written works as they go through stages of writing. In teaching, students are introduced to techniques to stimulate them to discover and become engaged in a topic. They are asked to draft a work and taught that prewriting, drafting, revising and editing are important in writing rather than simply

being expected to submit the finished written work promptly (Matsuda, 2003; Narasri, 2007; Paltridge, 2004). Richards (1990 cited in Saraiwang, 2006, p. 3-4) says that research on the writing process contributes several beneficial aspects to foreign language teaching. First, undue concern with the formal aspects of writing can prevent the development of efficient writing strategies. Next, writers who use a more appropriate writing process tend to enhance the quality written work. As a result, recent developments in the teaching of writing are the introduction into the classroom of the aspect of writing process as an effective method to increase students' writing competence.

In terms of research on the teaching of writing, there is only a small amount of research material on this topic and it is a valuable resource for the teaching of writing skills, especially the aspect of how technology can facilitate the writing process. Zaid (2011) who stated that there are few empirical studies showing how students of ESL/EFL write with the aid of computers or how their approach to writing might change with experience in using computers to write. Most research described both novice writers and novice computer users, but only little has been shown of the results of utilizing computers by ESL/EFL writers.

In addition, The *National Commission on Writing* (2003) stated four challenges to education professionals in order to bring about reform in writing teaching: 1) increasing the amount of time that students spend on writing, 2) improving the evaluation of writing, 3) applying emerging writing technology and 4) providing relevant professional development for all teachers. It is widely recognized that writing has changed from a pen and paper activity to one that is technology-driven. Technology is accepted because of its potential to support writing and the teaching of writing (Peterson-Karlan, 2011). The integration of information and communication technology (ICT) into educational systems is a paradigm shift in teaching and learning methodology. Learners are introduced to web-based instruction, e-learning, and online education.

Using web-based technology to enhance language teaching has become more popular with many foreign language learners (Kern & Warschauer, 2000). This is because web-based instruction is provided through networked computers utilizing hypermedia and multimedia technology which offers learners a high level of user control and adaptability to their different learning needs. Dearing (1998) and Collis (1999) describes the advantages of web-based learning as providing a learning environment that helps learners succeed in improving understanding where other methods have failed. Web-based learning environments are designed to offer more variety than traditional classroom instruction, with features such as networked information retrieval systems, electronic communication (email) and interactive multimedia lecture presentations and course management.

Based on the information described above, writing technology appears to play a crucial role in helping learners' develop their writing competency. It would be useful if the study of web-based instruction and teaching of writing were conducted together. Therefore, there should be a study emphasizing the use of web-based instruction in the field of

writing to strengthen the understanding of how it affects the teaching of writing and to explain its implications for teaching writing.

### *The purpose of the study*

The study aims to:

1. develop a web-based instruction in English paragraph writing for undergraduate university students based on the 80/80 efficiency criterion as subsequently defined.
2. compare learning achievements on paragraph writing of students who received tutoring via web-based instruction with the achievements of students who received tutoring via conventional face-to-face instruction.
3. evaluate students' attitudes towards learning English paragraph writing via web-based instruction.

### *Research questions*

In order to achieve the purposes mentioned above, this research focuses on the following questions:

1. What are the elements in developing web-based instruction in English paragraph writing?
2. Is there higher learning efficiency of English paragraph writing using the web-based instructional method based on the 80/80 standard?
3. Are there any significant differences in learning outcomes on English paragraph writing between the experimental and control groups?
4. What are the students' attitudes towards learning English paragraph writing via web-based instruction?

### *Hypothesis of the study*

1. The value of efficiency achieved with the developed web-based instruction in English paragraph writing meets the 80/80 standard.
2. The learning achievement on English paragraph writing of students using web-based instruction is higher than that for those who received tutoring via conventional face-to-face instruction at the 0.05 level of significance.
3. The students have positive attitudes towards learning English paragraph writing via web-based instruction.

## **Review of literature**

### *Web-based instruction*

Web-based Instruction (WBI) is a hypermedia-based instructional program which utilizes the attributes and resources of the internet and World Wide Web to facilitate the development of interactive electronic learning processes and curriculum materials, creating a more meaningful learning environment (Uparimpanich, 2008). Olaniran, Rodriguez & Williams (2010) define Web-based Instruction (WBI) as e-learning that

is a form of teaching involving the delivery of learning and curriculum materials through the internet to individuals in remote places.

Hazari and Schnorr (1999) state that this new development in information communication technology (ICT) benefits students' learning environment by helping to increase their understanding where other methods have had limited success. This is because the tool supports the constructivist theory which is the development of learners' capacity for goal setting, self-planning and self-monitoring where they are able to assimilate knowledge at their own learning pace. According to Salomon (1988), the use of hypermedia may not only be helpful in terms of enhancing deeper learning by encouraging learners to think about how new information is related to existing knowledge, but it may be an alternative tool to the extent that it provides a cluster of learning modes such as text, audio, graphics, and synchronous and asynchronous communication that can be made to suit individual learning styles. This is in line with Spiro and Jehng (1990) who mention that web-based instruction is a non-linear teaching medium that may encourage deeper processing and cognitive flexibility in learners. Hypermedia is organized in a non-linear format and uses several types of media such as audio, video, and text which encourage learners to access reference materials based on their individual needs (Tessmer, 1993). Erricolo and Matthes (1999) noted that web-based instruction is useful for learners who cannot attend classrooms due to their limitations in terms of financial resources, professional commitments or physical constraints. Learners can access teaching materials anytime anywhere. For teachers, resource materials can be modified or kept up to date easily. Visual images are very important for certain courses and this tool offers clarity in the explanation of concepts to learners. In addition, Chute, Thompson and Hancock (1999) support the notion that this tool is beneficial in that it readily accommodates individual preferences and self-paced learning. Web-based instruction is highly beneficial for the learning dynamics of students with different learning styles.

Besides, Arbaugh (2005) stated that features of web-based instruction that may enhance teaching effectiveness are media variety, facilitation of exploration, and ease and flexibility of use. Dearing (1998) mentioned that learning through WBI helps students to access different learning materials and resources that were not readily available previously and which are highly effective. Furthermore, communication of web-based instruction is highly efficient with the various ICT applications at the student's disposal: email, web board, online chatting, video conferencing and electronic homework. Owston (1997) further states that students who spend a lot of their time at the computer tend to be more interactive with the technology and are more visual-oriented learners than previous generations as it is full of visual stimuli. It is the unique way of linking text, images, sounds and other resources that make it a powerful tool for instruction.

In summary, from the advantages of web-based instruction described above, it can be viewed as an instrument for creating a highly motivational learning environment. Web-based instruction facilitates the work of both teachers and students with a variety of learning and teaching opportunities. For example, students can access a virtual classroom

at any time or anywhere and one which suits their individual needs and learning styles. For teachers, the resource materials can be modified or kept up to date easily. This tool also allows teachers to easily adopt the advanced teaching technologies increasingly available.

### *Writing process*

The process-oriented strategy for learning writing has come into favour in recent years due to the limited success of the product approach. The writing process is a method of teaching writing in which the focus has changed from the student's finished product itself (such as patterns of organization, spelling and grammar) to what students think and do as they write (planning, revising, and the like). The emphasis has switched to how they write instead of what they write (Applebee, 1986, p. 96; Tompkins, 2004, p. 9;). Nunan (1999, p. 272) further mentioned that the process approach provides students much more time to write and rewrite their work. This approach enables writers to better control their way of expressing themselves and then to work through their writing by discussing, reflecting and reworking until they complete a draft. This means that the emphasis is placed on the development of writing rather than on the final draft.

Tribble (1996, p. 160) defines the 'process approach' as 'an approach to the teaching of writing which focuses on the creativity of each writer, and which pays attention to the development of good writing practices more than the imitation of models'. Thus, the focus has changed from the final product itself to the different stages the writer goes through in order to create the product.

White and Arndt (1991) proposed that the different stages in the writing process consist of various forms of brainstorming, selecting and ordering ideas, planning, drafting, redrafting and revising, and editing. The process-oriented approach to writing is aimed at developing, creating and organizing, and editing ideas in order to express them in appropriate language.

The writing process can be broken down into a series of stages as described in the following:

Stage 1: In this stage, the writers generate ideas by retrieving them from their existing knowledge. This helps writers to explore possible content and plan outlines. This stage consists of brainstorming, listing and free writing.

Stage 2: In this stage, writers translate their ideas into sentences and paragraphs. They focus on the messages they would like to convey. This process is described differently by different researchers: writing and rewriting (Hedge, 1988), drafting (White & Arndt, 1991), or creating and developing (Harris, 1993).

Stage 3: This stage is when writers consider the content and organization of their writing. They rethink and rewrite what they have written for the purpose of improving the first draft. They sometimes add, delete, rearrange or clarify the contents if they feel that the ideas are incorrect or unclear. Some writers include editing in this stage so that they can concentrate on accuracy of grammar, punctuation, mechanics, etc.

Stage 4: This stage is called the post-writing stage. Writers engage in tidying up the content as they prepare the final draft. They check and edit for surface-level issues such as errors of grammar, punctuation and spelling. According to table 1, some researchers have merged Stages 3 and 4 into one. In some models, the editing process is employed as a final stage for checking the accuracy of grammar.

Murray (1982) summarized the characteristics of the process-oriented approach in writing, stating that it trains students to learn and understand that quality writing is achieved through processes more than focusing only on what the students need to gain from teaching. The teacher is the facilitator for the writing process and assumes that students are competent to write or communicate their ideas to the audience. Moreover, it is the activity of exchanging knowledge and experience through sharing their writing tasks with classmates that is the real strength of the process-oriented approach. Students can learn from each other's ideas and mistakes and use them as examples to develop their own writing skills. In this model, the teacher avoids evaluating students' work in terms of grammar but focuses only on content. The criteria for evaluation are the readers' understanding of the topic and the objective of the writing task. This is because this model is aimed at training students how to prepare their ideas prior to using them for drafting, editing and revising.

### *Instructional design model*

Instructional design models provide systematic guidance in how to plan instruction. This systematic approach serves as a conceptual and communication tool to visualize, guide, and manage the steps necessary for building effectiveness, efficiency, and relevancy into the instructional design process (Gustafson & Branch, 2002, p.1). According to Reiser and Dempsey (2007), analysis, design, development and evaluation are the common components found in almost all instructional design models. However, the differences between these models are in the structuring of the components and sub-components and the terms used (Gustafson & Branch, 2007).

There are several instructional design models that are beneficial for course development, but selection of the one to follow to create effective instruction is not a simple matter. This is because of the differences in approach of the various models. Hence, it is necessary to select a model which is the most relevant in relation to the context of the particular course of instruction. Alternatively, a better choice is a generic instructional design model.

The ADDIE model provides a comprehensive and systematic process for developing e-learning (Dick, Carey & Carey, 2005). It is generally accepted as the model for development of web-based instruction, and for this reason it was employed in the development of the web-based instruction on writing for this research. It is a model that embodies the underlying structure of all other models. It is a generic instructional design model that guides the development process toward an end-product and serves the needs of both the learners and the teacher (Gustafson & Branch, 2007; Gagne et al, 2005). Since it is a generic model, it is easier for the researcher to use it in instructional design.

The components of this fundamental model consist of the five phases: analysis, design, development, implementation, and evaluation. The analysis phase encompasses a needs evaluation of the instructional problem and goal identification. The design phase is about defining learning objectives and selecting an instructional approach. The development phase deals with preparing instructional or training materials. The implementation phase covers the delivery or distribution of the instructional materials. The evaluation phase includes making sure the instructional material achieved the desired goals which can be done through summative and formative evaluation.

In this study, the ADDIE Model served as the conceptual framework as detailed in the following sub-sections:

#### *Analysis phase*

In the analysis phase, students' needs and problems in English paragraph writing are investigated. According to the preliminary phase of this study, the result reveals that students at Thaksin University have problems in dealing with English writing. Most of them do not understand how to write effectively and they do not possess the strategies for writing texts independently. In addition, they do not enjoy writing and lack confidence in writing on their own, leading to low motivation for writing in classroom.

#### *Design phase*

At this stage, strategies, learning objectives, teaching method and learning content, instructional material and assessment of competency are designed for the teaching of writing skills. The design of the writing strategies is the first step in this phase. Based on the preliminary study, students do not possess the strategies for writing texts independently. When asked to identify the techniques that are required for effective writing they marked four elements provided in the questionnaire: grammar, organization, content and vocabulary. For the learning objectives, it is anticipated that students' English writing competency can be promoted to achieve proficiency in their classroom learning.

Regarding writing teaching method and learning content, the results of the preliminary study demonstrate that students who visibly planned their writing had higher scores than those who did not do any planning prior to writing. Based on the results described, the researcher concluded that the higher writing scores of students are due to writing techniques, otherwise known as the writing process. Thus, the writing process is selected as a teaching method in this study. Learning content is selected based on the course description in *General English II*. For instructional material, web-based instruction was selected to deliver the lessons. Based on the findings of the needs-analysis study, students need to spend more time practicing writing at their own pace and in their own time outside classroom. Writing practice can improve their language proficiency and enable them to become more confident in their writing abilities. It is one of the options to enable learners to be more autonomous and this is necessary for learning to write (Cotterall,



2004). For the assessment of students' writing competency, pre-testing and post-testing are undertaken to evaluate and compare their English writing competency.

#### *Development phase*

The web-based instructional material was developed in this phase. The try-outs of materials with representative students, also known as formative evaluation, were utilized during this stage to ensure that they meet the objectives and will be effective.

#### *Implementation phase*

During this stage, the web-based lesson was conducted in teaching writing. A total of 50 first-year students who enrolled in *General English II* in the second semester of the 2012 academic year at Thaksin University participated in studying English paragraph writing through web-based instruction. The purpose of this stage is to ensure appropriate use of the instructional media by students.

#### *Evaluation phase*

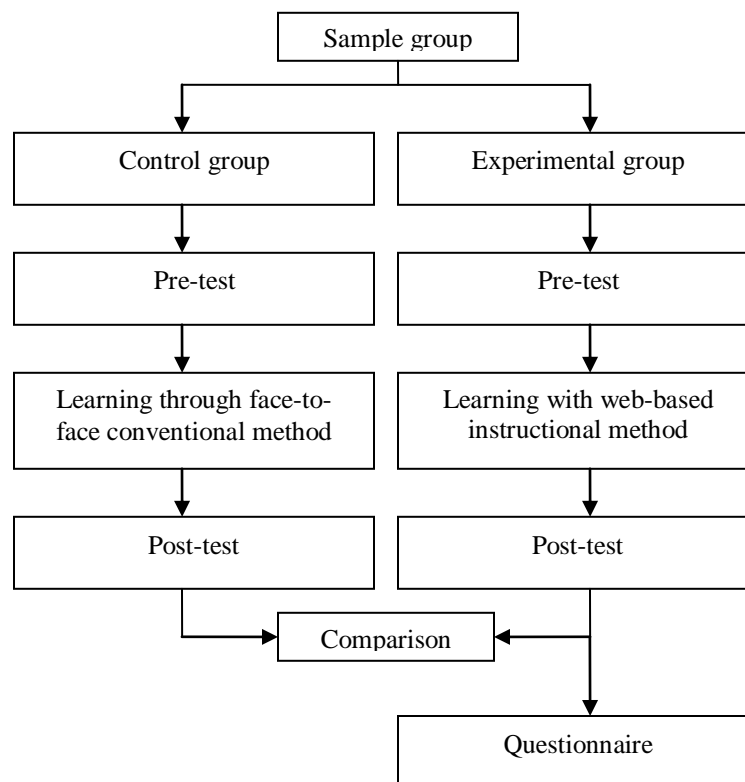
The summative evaluation was conducted after the implementation of web-based instructional material to check its effectiveness.

### **Research methodology**

#### ***Research design***

In order to achieve the research objectives, the study utilized an experimental design known as pre-test/post-test control group design as illustrated in Figure 1.

Figure 1. Flowchart of the research design



The pretest-posttest control group design involves comparisons between a control group and an experimental group. The control group in this study participated in a conventional face-to-face instruction, and the experimental group participated in a web-based instruction. Before the experiment, students in both groups took a pre-test to measure their English writing ability. After that, they took the post-test. For the experimental group and the questionnaire were administered. The data obtained from different methods of the study were analysed to find out whether both groups were significantly different.

### ***Population and sampling***

The population consisted of 324 students who enrolled in General English II in the second semester of the academic year 2012 at Thaksin University, Thailand. The group of students was selected from five faculties that are Faculty of Humanities and Social Sciences, Faculty of Business Management, Faculty of Science, Faculty of Law and Faculty of Education. The sample group consisted of 100 students, 20 students from each faculty. They were divided equally into two groups, by using simple random sampling.

### ***Instrumentation***

The 4 units of lesson plans for conventional face-to-face instruction (see Appendix A). The web-based instruction course was created by the researcher. It consisted of 4 units: Introduction to a paragraph, Writing process, Paragraph unity and Paragraph coherence.

Students were provided with English written text. They were able to select whether they would like to listen to Thai explanations or not; they could click on the button to turn the sound on or off. The writing competency test which was used as a pre-test and post-test to study the progress of students' learning achievement before and after they study writing with web-based instruction. The questionnaire to study students' attitudes towards learning writing with web-based instruction was constructed using the *Likert* method.

### ***Validity and reliability***

#### *The construction of the instrument*

The construction of four units of lesson plans for conventional face-to-face instruction involved:

1. Studying the concept of how to develop a lesson plan in terms of terminal objective, learning objectives and contents.
2. Constructing the lesson plans for developing English paragraph writing ability.
3. Examining the lessons plans by 3 language specialists in English teaching.
4. Improving and revising the lesson plans prior to implementing with the control group.

#### *The construction of web-based instruction*

The methods and principles of constructing web-based instruction were studied from related articles, books and researches. The content and instructional objectives were analysed, selected and outlined based on the findings from the writing textbooks. The selected contents from item 2 were used to construct the web-based lessons focusing on four topics of teaching and learning elements which were similar to those topics in the lesson plan of the conventional face-to-face instruction. The 4 units of lesson plans for web-based instruction (see Appendix B). The content of initial web-based lessons was then approved and analysed by 3 language specialists in English teaching. After the approval of the language specialists, the lessons were revised and improved accordingly. The web-based lessons were designed and a storyboard was written. Each unit consisted of contents, exercises, pre-test and post-test, assembled in a series of frames. The frames contained animated images, a narration, background music, sound effects and buttons for interaction. The storyboard was evaluated and approved by five media experts. The evaluation form of the Department of Curriculum and Instruction Development was used to examine the quality of the web-based lessons in four aspects: content, instructional design, screen design and techniques (Department of Curriculum and Instruction Development, Ministry of Education, 2003, p. 123). The criteria used for evaluation are as follows:

<b>Score</b>	<b>Meaning</b>
4	Very good
3	Good
2	Average
1	Poor

The ranges of the scores are as follows:

<b>Score</b>	<b>Meaning</b>
3.26-4.00	Very good
2.51-3.25	Good
1.76-2.50	Average
1.00-1.75	Poor

Before first administering the experiment with students, feedback from 5 media experts was used to improve the web-based lessons in terms of clarity and appropriateness of explanations, the step-by-step lesson sequences, screen design, buttons and images. Then, the web-based lessons were programmed. The lessons comprised 4 units which were structured as described in the following paragraphs.

The web-based instruction course started with a page setting out the objectives of the programme followed by a Warm-up session which comprised a quick questionnaire. The first frame of the questionnaire contained six questions to check the students' attitude towards writing and to help them get ready prior to working on the first unit. The students answered using a 3-point rating scale: not at all/some/a lot. The score provided quantitative feedback to the researcher on the level of the students' attitude towards writing. The sample is illustrated below:

Unit 1 commenced with the Explore frame. This session was designed to provide students with an explanation of the "Meaning of a paragraph". In the following frame, students learned about "Overview of components of a paragraph". The examples of two paragraphs were presented with Thai spoken explanation to help in better understanding each component within a paragraph.

Immediately after students finished learning the content in the Explore session, they would then move to the Practice session. In this session, they would do a set of exercises to practice finding a good topic sentence and a concluding sentence from the examples provided, then identifying each part of the paragraph. In the first and second parts of the exercise, they were to read two paragraphs. For the first paragraph, they were required to select the appropriate topic sentence. For the second part, they were to look for the appropriate concluding sentence. To select their answers, they clicked check marks in the space in front of the alternative sentences provided. For the third part, they dragged the numbers in front of each sentence to fill in the spaces provided at the bottom of the page which were classified based on topic sentence, major supporting sentences, minor supporting sentences and concluding sentence. After finishing the Practice session, they would then move to do the post-test. A sample is shown in Figure 2.

Figure 2. The Practice section of unit 1: exercises

Introduction to Paragraph Writing

Main menu

**Capito**

\_\_\_\_\_ . He is a medium-size Labrador retriever with short, yellow hair and a long tail. In the house, he is always with me. When he comes to me, he hits everything with his tail. He also likes to come with me for a walk or a drive. Capito loves water. He loves to swim, play in the rain, and even play with the water in his bowl. He is a good student. He likes to learn, and he knows a lot of commands. Also, Capito is very gentle. He runs after cats, but he doesn't them.

\_\_\_\_\_ 1. Capito is my dog and my friend.

\_\_\_\_\_ 2. Capito's face is big and square.

\_\_\_\_\_ 3. My dog is seven years old.

\_\_\_\_\_ 4. Capito is my lovable dog.

\_\_\_\_\_ 5. Capito is my wonderful pet.

สวัสดีครับ! สอนเขียนย่อหน้า  
สวัสดีครับ! สอนเขียนย่อหน้า

For unit 2, in the Warm-up session started with the overview of three steps in the writing process to prepare students before moving to learn the content in the Explore session. In the Explore session, it consisted of prewriting, drafting, and revising and editing. In prewriting, it was designed for students to learn the three techniques in order to generate ideas that were brainstorming, clustering and free writing. To develop students' writing skill, they had to list and outline their ideas in the space provided. For the second step, drafting, students were provided with samples of the first draft of a paragraph. After finishing the study of the sample paragraph, students had the opportunity to write their first draft in the space provided, based on the outline they did previously. The third step consisted of 2 subtopics: revising and editing. For revising, students learned more about how to revise their first draft. They were also provided with the revising checklist to help them develop the idea of what to revise.

Immediately after students finished learning the content in the Explore session, they would then move to the Practice session. They would do an exercise to practice revising a paragraph. In this exercise, the students were to read the paragraphs provided and identify any faults. They were to choose the number of the most suitable statement in the revising checklist provided to fill in the blanks. For editing, students were to learn how to correct mistakes in terms of grammar, spelling, and punctuation. For grammar aspects, it covered agreement of subjects and verbs, sentence fragments, run-on sentences, capitalization and punctuation. They were also provided with the editing checklist to help them develop the idea of what to edit. Students would then move to the Practice session to do a set of exercises on each aspect of grammar. After finishing the Practice session, they would then move to do the post-test. Samples are shown in Figures 3 and 4:

Figure 3. The Warm-up section of unit 2

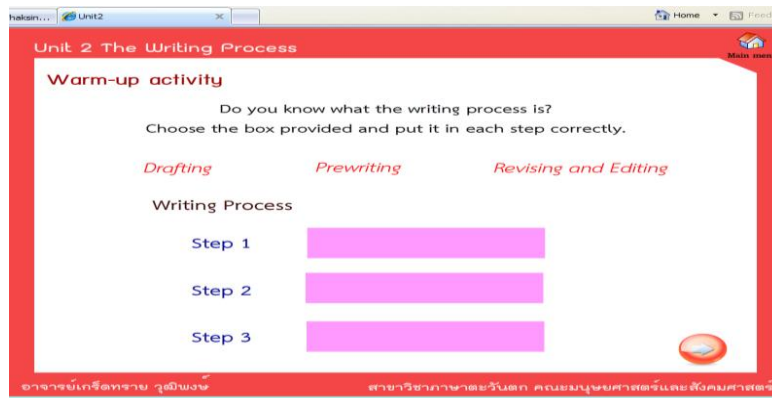


Figure 4. The Practice section of unit 2: exercises



Unit 3 started with the Warm-up session which was designed as a yes-no questionnaire. In this session, the students were to answer 1 question to help them get ready prior to working on the third unit. The students read a short passage and picked a *Yes* or *No* answer by clicking the button. The students would then move to the next session - Explore. This was designed to provide students with an explanation of the “Meaning of paragraph unity”. In the following frame, students learned “Techniques to write a unified paragraph”. The examples of both unified and disunified paragraphs were presented. After the students completed learning the content in the Explore session, they would then move to Practice session. They would do a set of exercises to practice paragraph unity. In the first exercise, the students were to select the word that was not relevant to the topic and topic sentence provided. They clicked on the button in front of the irrelevant vocabulary. For the second and fourth exercises, students were to read the passages and find the numbers of the irrelevant sentences and put them in the space provided. For the third exercise, students were to find the number of the irrelevant supporting sentence, the one that they would not expect to find in a paragraph of each of the topic sentences. They then clicked the number in front of the selected sentence. After finishing the Practice session, they would then move to do the post-test. A sample is shown in Figure 5.

Figure 5. The Explore section of Unit 3: contents

Paragraph Unity

Click the button to listen to Thai explanation.

**Topic sentence**

**2<sup>nd</sup> supporting sentence:** it supports the topic sentence talking about how his mother is strict with his brother

**3<sup>rd</sup> supporting sentence:** it doesn't support the topic sentence as it describes about relatives

**4<sup>th</sup> supporting sentence:** it doesn't support the topic sentence as it describes about the flat

**5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> supporting sentence:** it doesn't support the topic sentence as it describes about the argument between his father and mother

→ (1) My mother is very strict with my brother. (2) She won't let him out of the house if he hasn't completed his homework. (3) Sometimes our relatives visit us. (4) Our flat becomes very crowded sometimes but I like it. (5) My father does not agree with my mother. (6) They quarrel a lot (7) sometimes I wish they would get a divorce, but then with whom would I live?

อาจารย์อภิสิทธิ์ อาราม วุฒิมงคล  
ภาควิชาภาษาไทยและวัฒนธรรมไทย คณะมนุษยศาสตร์และสังคมศาสตร์

Unit 4 started with the Warm-up session which was designed for students to compare the differences between two paragraphs. In this session, the students were to answer 2 questions to help them get ready prior to working on the fourth unit. For the first question, the students clicked on the words that make for differences between the two paragraphs. For the second one, they were to select which paragraph was easier to read and understand by filling in the number of the paragraph. The students would then move to the next session - Explore.

This session in Unit 4 was designed to provide students with an explanation of the “Meaning of paragraph coherence”. Examples of incoherent and coherent paragraphs were presented to students to help them better understand what a coherent paragraph is. In the following frame, students learned “Techniques to write a coherent paragraph”. The first technique was to arrange details in a paragraph in proper order: the order of time, the order of space and the order of logic and reason. Five examples of how to order details based on time, space and logic/reason were described and presented with the focus being on using transitional signals to make a coherent paragraph. The second technique was how to make the relationships among the sentences in a paragraph clear through using a pronoun reference and using transition words or phrases. In the following frame, students would learn a list of transition words or phrases used for achieving coherence in a paragraph. After students finished learning the content in the Explore session, they would then move to a Practice session. In this session, they would do a set of exercises to practice what they have learned. For the first exercise, they had to fill in the table with the correct reference words or phrases. In the second exercise, students were to select the suitable reference words from the box and fill in the blanks provided. For the third exercise, students were to read and choose the types of paragraph orders: the orders of time or space. Then they must fill in the blanks provided. In the fourth exercise, students were to click on the transition words or phrases in the paragraphs provided. After finishing the Practice session, they would then move to do the post-test. A sample is shown in Figure 6.

Figure 6. The Warm-up section of Unit 4

Unit 4 Coherence

Paragraph 1

**Fairy Tales and Love**

In fairy tales, true love always wins. **For example** in the fairy tale *Sleeping Beauty*, an evil witch causes a beautiful princess to fall into a deep sleep. The beautiful princess must stay asleep until a handsome prince finds her and kisses her. **At last** a handsome prince finds the beautiful princess and wakes her up with a kiss. In the end, they live happily ever after. **In short** this story shows that love is always possible.

Paragraph 2

**Fairy Tales and Love**

In fairy tales, true love always wins. In the fairy tale *Sleeping Beauty*, an evil witch causes a beautiful princess to fall into a deep sleep. A beautiful princess must stay asleep until a handsome prince finds a beautiful princess and kisses a beautiful princess. A handsome prince finds the beautiful princess and wakes a beautiful princess up with a kiss. A beautiful princess and a handsome prince live happily ever after. A story shows that love is always possible.

Vocabulary meaning

fairy tale = เทพนิยาย      witch = แม่มด      ever after = รักรื่นโรตรี

อาจารย์เกียรติกร ขวัญพงษ์      สาขาวิชาภาษาอังกฤษ ชั้นต้น คณะมนุษยศาสตร์และสังคมศาสตร์

The developed web-based instruction was tested by the following methods:

**One-to-one step testing (1:1):** In this step, the developed web-based instruction was tried out with three students: one representative from each of three groupings: high potential, average and slow learner. Each of these three students was selected at random from the three groupings of students based on their grade in English I in the previous semester. High achievers were the students who received A or B+ grades, average students had B or C+ grades, and slow learners were C grade or below. The three students were asked to take the pre-test on English writing. They studied English paragraph writing via web-based instruction for 22 sixty-minute periods. After that, they took the post-test and were asked for feedback and opinions about the lessons in order to improve the quality of the lessons. The efficiency value was 72.19/75.83.

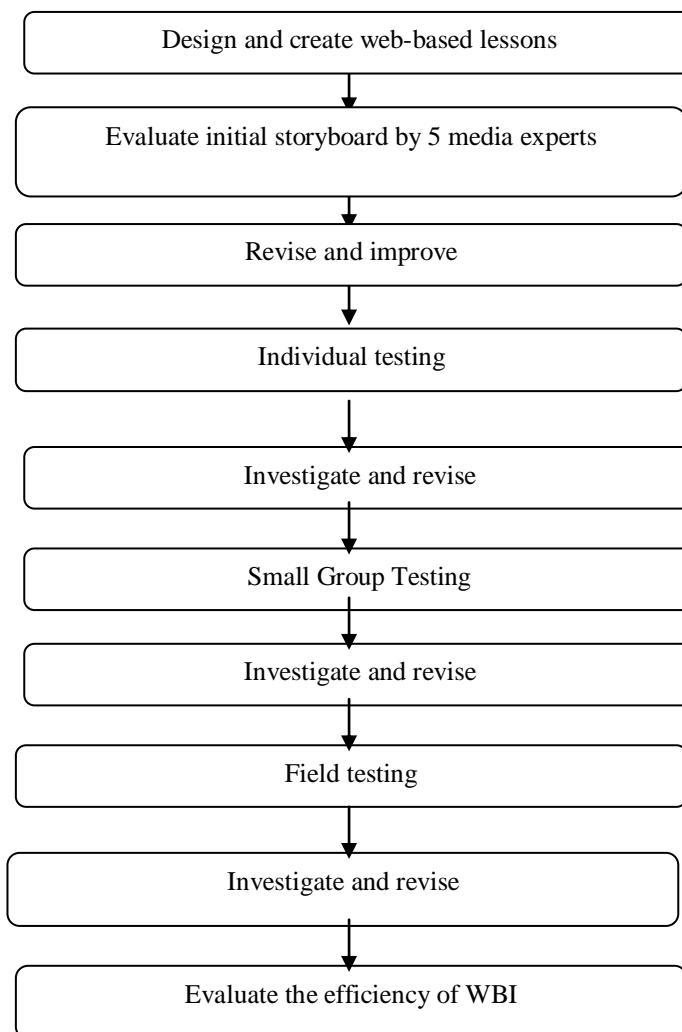
**Small group testing (1:10):** The revised web-based instruction was tried out with a further nine students; three representatives from the high potential sample group of students, three average students, and three similar to slow learners, to check if the lesson met the needs of the entire target population. These students were selected at random. They are different students from those in the main sample group and in the group of one-to-one step testing. A similar procedure was followed with these students as with the group of one-to-one step testing. The data obtained was used to revise the web-based lessons. The efficiency value was 76.17/77.22.

**Field testing (1:100):** The revised version of the web-based instruction was tested for its efficiency (E1/E2). An ideal E1/E2 should be based on 80/80 efficiency criteria. The methods used in this step were exactly the same as the ones described previously in the section on small group testing except that the number of student participants was 30. The efficiency value was 80.03/80.38.

The steps in determining of the efficiency of English paragraph writing lessons try-out are illustrated in the Figure 7.



Figure 7. Steps of English paragraph writing lessons try-outs



### *The construction of the writing competency test*

The steps involved in the construction of the Writing Competency Test were firstly, constructing a table of content analysis (learning unit objectives) in order to identify the numbers of items and how to measure the test content and the objectives. The results of the analysis in item 1 was then used to construct the 43 items of the objective test: this comprised multiple choice questions, questions requiring true or false answers, and the matching of similar items, as well as four questions requiring subjective answers. The writing competency test was divided into four parts: terms, components of a paragraph, unity and coherence, and paragraph writing. Three English language specialists were consulted to check the content and validity of this test. The feedback was used for improving the test before administering it with students. The content of the test was evaluated through Index of Item-Objective Congruence (IOC). In this study, the value of IOC is between 0.6-1.0, which was acceptable. The revised tests were tried out with 50

second-year students who had previously studied paragraph writing in order to check the level of difficulty of test items (p) and the discrimination index (D). These students are a different group from those in the sample group. The test items with value of level of difficulty between .20 to .80 and the discrimination index higher than .20 were selected. The items were also selected based on the defined learning objectives of four units. The test was then tried out with first-year students who are in a different group from those in item 4). The test scores were calculated to check for the reliability using the Kuder-Richardson Formula 20 (KR<sub>20</sub>). The value of this reliability test was 0.81. The 37 test items from item 5 were then employed in the study.

*The construction of the questionnaire*

The questionnaire was constructed as follows:

1. Some related literature on attitude and methods in developing a questionnaire was reviewed to develop the initial questionnaire. 23 questions were formulated and these were then divided into 4 parts: the students’ attitudes towards the screen design, contents and its presentation, usage of web-based instruction, and an open-ended part to solicit their suggestions.
2. The scope of question items in terms of content and its presentation, screen design and web-based instruction were identified.
3. Language specialists were consulted to check the congruence between the questionnaire items and 3 objectives: screen design, contents and its presentation, and usage of web based instruction. The value of IOC was between 0.6-1.0. The students were required to rate the statements on a five-point scale from “very low” to “very high” where the answer represents their opinions as follows:

Score	Level
5	Very high
4	High
3	Neutral
2	low
1	Very low

After that the initial questionnaire was tested and improved to make it more comprehensive, reliable and valid for collecting data.

4. The questionnaire was then administered with the experimental group of students to study their attitudes towards learning English paragraph writing via web-based instruction. The Cronbach’s Alpha value ( $\alpha$ ) of this questionnaire was 0.85.

***Research procedure***

The web-based learning procedures and learning objectives were described to the students step-by-step. The students were divided into two groups: the control group which would study by conventional face-to-face instruction and the experimental group which would study with web-based instruction only. The students in the sample groups took the pre-test first while the control and experimental groups learned with the teacher

and the web-based instruction respectively. Three periods each week were arranged for the instruction. Each period covered 1 hour. After completion of each unit, each group was assigned to do the unit tests. When finishing the course, two groups were assigned to do a test covering 37 test items. It was conducted on the second week of December, 2012. The pre-test and post-test scores of each group were obtained to evaluate the learning progress and to compare post-test scores of the control group and the experimental group to determine the effectiveness of web based instruction by using T-Test at 0.05 levels. After completing the course, the experimental group was assigned to respond to the questionnaire regarding attitude towards usage of web-based instruction. The students' opinions were obtained to calculate the mean score of a particular comment and overall comments.

### *Variables*

Independent variables: The two methods of instruction that were the web-based instructional method and the conventional face-to-face instruction on English paragraph writing.

Dependent variables: The students' learning achievement on English paragraph writing and attitudes towards learning via web-based instruction.

### *Data analysis*

The data obtained from different methods of the study were analysed and interpreted in two main ways, by quantitative and qualitative analysis.

#### *Quantitative Data Analysis*

Quantitative data includes the data obtained from the post-test and questionnaire.

##### *The data obtained from the post-test*

The t-test was used to compare the writing competency of the experimental and control groups. The computer software program, SPSS, was used to analyse the data.

##### *The data obtained from the questionnaire*

The data from the Likert's scale was calculated for the arithmetic means ( $\bar{X}$ ). These means indicated the students' opinions towards learning via web-based instruction. The value of mean scores for opinion level was interpreted according to the following criteria:

<b>Value of mean scores</b>	<b>Meaning</b>
4.51-5.00	very good
3.51-4.50	good
2.51-3.50	average
1.51-2.50	bad
1.50 or lower	very bad

### *Qualitative Data Analysis*

Qualitative data includes the data obtained from the open-ended section of the questionnaire.

#### *The data obtained from the open-ended section of the questionnaire*

The data obtained from the questionnaire in the open-ended section was labelled and coded so that the differences and similarities between all the answers were seen.

The utilization of experimental design, known as pre-test/post-test control group design, helps to minimize the validity weaknesses. The use of control group helps strengthen the validity of the results of scores. In terms of testing, the two groups took the pre-test, so the difference between groups is not because of the effect of pre-testing on the scores of the post-test. For selection of participants in this study, students in both groups were selected at random from five different faculties. As a result, they had equal opportunity of being either in a group receiving the web-based instruction or in a group receiving the conventional face-to-face instruction. In addition, the sample size of 100 students from different faculties can be considered appropriately sized for this experiment, so it might be possible to extrapolate the result of the study to the entire student population. For instrumentation, web-based lessons, pre-test, post-test, questionnaires and interview questions are validated by qualified specialists to eliminate the weaknesses of instrumentation.

## **Results**

### *Evaluation of Web-Based Instruction for Paragraph Writing*

The 23 items of evaluation contained in the form issued by the Department of Curriculum and Instruction Development were adapted for use in this study. A 4-point rating scale was used in this section to represent the media experts' opinion. Each criterion rating was identified as shown in Table 1.

Table 1. Results of evaluation of web-based instruction for paragraph writing by five media experts

Evaluation items		$\bar{X}$	SD	Result interpretation
<b>Contents</b>				
1.	Content structure is clear and each content shows structural relationship.	3.20	.44	Good
2.	The presented contents of instruction cover the learning objectives defined.	3.60	.54	Very good
3.	Language use is appropriate and correct.	3.20	.44	Good
4.	The learning content is appropriate for the student's grade level	3.20	.44	Very good
<b>Instructional design</b>				
5.	The objectives and the students' grade level are clearly identified.	3.40	.54	Very good
6.	The sequence of content presentation is appropriate according to types of media employed.	2.40	.54	Average
7.	Presentation techniques are attractive to learners.	2.60	.54	Good
8.	Web-based instruction is creatively designed.	3.00	.70	Good
9.	The interactive function design in web-based learning systems such as interaction between users and instructional contents or teacher is effective.	2.80	.44	Good
10.	The instruction is designed for individual differences and responds to the needs of diverse students.	2.60	.54	Good
11.	Instructional design enhances the ability of students to control their pace of learning appropriately.	2.80	.44	Good
12.	Exercises and assessments cover all learning objectives defined.	3.40	.54	Very good
13.	Interaction and timely feedback are provided appropriately.	3.00	.70	Good
14.	The instructional design enhances students' analytical thinking.	3.20	.44	Good
15.	User's manual clearly describes how to use web-based instruction and is appropriate for the level of students.	2.80	.44	Good
<b>Screen design</b>				
16.	Page layout control students' attention, and facilitates ease of use.	2.60	.54	Good
17.	Choice of typeface, size and colour facilitates ease of use and is appropriate for students.	2.60	.54	Good
18.	Choice of colours is appropriate and is applied consistently to specific types of on-screen information.	2.20	.44	Average
19.	Images presented are consistent with instructional contents.	3.20	.44	Good

20.	Buttons, text displayed, visual message can be appropriately established and can convey a very clear and correct message to the viewers.	2.40	.54	Average
<b>Techniques</b>				
21.	The web program is employed correctly such as user's information system	3.40	.54	Very good
22.	The linkages to each frame or focal point can be correctly established.	3.20	.44	Good
23.	Images and audio can function correctly and rapidly.	3.20	.44	Good
Total		2.95		Good

The average mean score of the web-based instruction evaluated by media experts was 2.95, which was at a satisfactory level. Based on the result, there were some issues that must be improved before the implementation. They were the three items that were rated in the average level: the sequence of content presentation, choice of colours, and the placement of buttons, text displayed and visual message.

#### ***Evaluation of effectiveness of the web-based instruction for English paragraph writing***

The value of efficiency of E1/E2 for one to one testing was 72.19/75.83. For small group testing, it was 76.17/77.22. Based on the results of both tests, it could be inferred that this web-based lesson must be improved prior to further implementation. After it was revised and improved, it was tried out with 30 students who were in different groups from the first and second testing stages. The result revealed that the value of efficiency of E1/E2 as 80.03/80.38. To summarize, this web-based lesson is developed according to the standard criteria 80/80 defined.

#### ***Evaluation of writing competency tests between control group and experimental group***

Table 2 shows the comparative result of the writing competency test between students taught by web-based instruction and those who studied with the conventional face-to-face instruction. The average mean scores of the control group and the experimental group are 40.36 and 41.44 respectively. The standard deviation of the control group and the experimental group are 2.55 and 2.65 respectively. According to the result of the t-test which was -2.075, it can be concluded that the learning achievement of the experimental group is higher than the control group at a significant level of 0.05.

Table 2. The Results of comparison between control group and experimental group

Group	n	$\bar{X}$	SD	t	Sig. (2-tailed)
Control group	50	40.36	2.55	-2.075	0.041
Experimental group	50	41.44	2.65		

P < .05

### *Evaluation of Students' attitudes towards learning English paragraph writing via web-based instruction*

Based on Table 3, the mean score ranges between 3.33 to 4.12, which is between average to high levels. The highest mean score (4.12) is the item "The presented content covers the learning objectives of each unit." The lowest mean score (3.33) is the item "User's manual clearly describes how to use web-based instruction." The average mean score overall of this dimension is 3.72, which shows that students had very good attitudes towards learning English paragraph writing via web-based instruction.

Table 3. Result of evaluation of students' attitudes towards learning English paragraph writing via web-based instruction

Evaluation items		$\bar{X}$	SD	Result interpretation
<b>Contents</b>				
1.	The learning content is suitable with learning time defined.	3.78	0.789	Good
2.	The learning topics and contents are interesting.	3.68	0.652	Good
3.	The presented content covers the learning objectives of each unit.	4.12	0.746	Good
4.	The learning content is appropriate for the student's grade level.	3.58	0.758	Good
5.	The learning content is clearly explained (in Thai) and enough for understanding.	3.84	0.865	Good
6.	Question items in the unit exercises are relevant to the content.	3.98	0.795	Good
7.	The contents of 4 units are appropriate for learning with web-based instruction.	3.88	0.558	Good
8.	The unit exercises are sufficient for checking understanding.	3.70	0.580	Good
9.	The question items in the unit exercises are clearly stated and easy to understand.	3.64	0.692	Good
<b>Screen design</b>				
10.	Layout of each page is established appropriately for learning.	3.60	0.534	Good
11.	Choice of typeface and size facilitates ease of use.	3.44	0.732	Average
12.	A loud and clear sound is provided.	3.90	0.735	Good
13.	Interaction and timely feedback are provided	3.72	0.701	Good

	appropriately.			
14.	Choice of colours is appropriate.	3.40	0.638	Average
15.	Screen design is attractive to learners.	3.94	0.580	Good
16.	Lesson navigation and buttons are appropriately established and relevant to these self-directed learning activities.	3.46	0.542	Average
<b>Web-based usage</b>				
17.	The web-based instruction is easy to use.	3.94	0.866	Good
18.	The interactive function between users and instructional contents is effective.	3.78	0.789	Good
19.	Learners can control and use this web-based lesson on their own.	3.68	0.586	Good
20.	User's manual clearly describes how to use web-based instruction.	3.30	0.505	Average
21.	This web-based lesson is fun and interesting.	4.00	0.782	Good
22.	Specified time for learning with web-based lesson is appropriate.	3.74	0.564	Good
23.	If it is possible, you would like to learn other subjects with web-based instruction.	3.60	0.606	Good
	Total	3.72	-	Good

## Discussion

### *Analysis of web-based instruction's value of efficiency of E1/E2*

The construction of the experiment on web-based instruction on paragraph writing was divided into 3 separate stages in order to test whether the value of efficiency of E1/E2 according to the 80/80 efficiency criteria could be achieved prior to the implementation. In the first stage called one-to-one testing, the web-based lesson on paragraph writing was trialled with 3 students. The value of the efficiency was 72.19/75.83. In the second stage called small group testing, the value was 76.17/77.22. After the content of this web-based instruction was revised and improved, the last stage called field testing was conducted. This was trialled with 30 students. The results revealed that the value of efficiency of E1/E2 was 80.03/80.38. The reasons that this web-based instruction achieved 80/80 efficiency criteria are as follows:

1. Appropriate learning content was selected for the web-based instruction.
2. Flow diagrams and a storyboard were drawn up beforehand to design the web-based instruction.
3. The web-based lesson was developed with the approval of media experts and English language specialists. According to their suggestions, the web-based lesson was continuously improved after each trial with the students.
4. Evaluation of the web-based lesson was conducted three times. After each trial, the evaluation score improved so that the criterion of efficiency set for the experiment was achieved, confirming the implementation was successful.

The findings of this experiment concur with several related studies. Boonnark (2003) conducted a study of web-based instruction on the theory of mass communication for



undergraduate students, and the result revealed that the value of efficiency of E1/E2 was 80/81.80. Moreover, the study on courseware development on research methods in educational technology through web-based instructional systems conducted by Jirasathidpornpong (2004) also revealed that the efficiency of E1/E2 was 80/80. Saitakham (2010) developed a web-based instructional model for English vocabulary learning ability and the result showed that the level of efficiency of E1/E2 was 83.50/84.25 which met the standard criterion.

The difficulties and limitations found while developing the web-based instruction were that some students clearly didn't study and understand the instructions. Another difficulty was preparing a clear and continuous sequence of learning contents so that learners could control and use it with ease. Other concerns were the selection of content that could be used appropriately with the nature of the web-based instruction as well as the relevance of the content for the level of these students. The difficulties and limitations mentioned above were improved during the development of the web-based lesson and the conducting of the research. For example, students' feedback regarding the colours or the sequence of the learning content was used to improve the web-based instruction. However, for some limitations such as motion graphic design, the researcher had to study from the internet and consult the media specialists.

### ***The comparison of writing competency on English paragraph writing of students who studied with the web-based instruction and those who studied with conventional face-to-face instruction***

Based on the comparison between the learning achievement on paragraph writing of students who learned with web-based instruction and those who studied with conventional face-to-face instruction, the result showed that the former had higher scores in learning achievement tests than the latter at a significant level of 0.05. Learning with web-based instruction produced effective results when the learning content with this tool was appropriate. This is because the tool can help motivate users with interesting techniques such as motion graphics, sounds and images. The comparative study on the teaching of food and nutrition using web-based techniques and traditional teaching methods conducted by Chalaumkate (2006) revealed that the learning achievement of students who learned with web-based instruction was higher than those who studied in the traditional teaching method at a significant level of 0.05. The following are the advantages and disadvantages of implementing this web-based lesson on paragraph writing which were found in this study.

#### ***Advantages***

1. The teacher is able to add and improve the learning content and activities more easily than with conventional teaching methods so the content is more likely to stay up-to-date.
2. Students are more motivated to learn using WBI than with conventional teaching methods.
3. Learners can study on their own at their own pace anywhere and anytime that internet access is available.

4. It is an alternative choice of learning for students who don't feel comfortable to express their opinions or ask questions in the classroom as they can post their questions in web board.

#### *Disadvantages*

1. Students cannot receive simultaneous feedback or explanation in real time.
2. The explanations provided by web-based instruction are limited and may not be very accurate or lack enough detail to get to the point when compared with the feedback received from the teacher in the conventional classroom.
3. Web-based instruction can't be employed to replace the conventional method of instruction in all subjects. Only certain subjects are suitable for learning with this tool.
4. Students must have sufficient background knowledge in the use of the computer and web-based instruction. For those who can't use the computer or the web-based instruction or connect to the internet, they can't study with it.

#### ***Students' attitudes towards learning English paragraph writing via web-based instruction***

Based on the results of this experiment, it has been found that the students had positive attitudes towards learning English paragraph writing via web-based instruction. This is in line with the results of studies reported in the literatures (Dejthongpong, 2002; Duangjai, 2006; Motiwalla & Tello, 2000; Oliver & Omari, 2001; Waraporn, 2004). Two thirds of students in these studies perceived learning via web-based instruction positively. This is because they are able to access the web-based course from anywhere and at any time. They benefit from proceeding through a web-based course at their own pace. In addition, their learning speed can be adjusted based on learning ability.

#### **Recommendations**

The development of web-based instruction should be conducted step-by-step based on best practice in this field, as it would help the researcher achieve the objectives of constructing web-based instruction lessons which result in higher efficiency of learning and a more successful implementation. Based on this research, it has been found that the learning achievement of students who studied English writing with web-based instruction is higher than those who studied with the conventional instructional method. As a result, it should be widely applied as a learning and teaching procedure for certain subjects. Moreover, paragraph writing is a subject that has been studied in several aspects of research and found to be successfully taught utilizing web-based instruction, so the technique should be further studied for the learning and teaching other subjects. In developing the web-based instruction at the university level, it should be conducted with the help of teachers in the relevant subject groups so that the learning content can be chosen appropriately when applying this tool. This would also help to prevent the occurrence of redundancy of the subject. Regarding learners' different learning styles, they should be given the opportunity to decide if they want to work on their own or in

small groups when using web-based instruction. This would enhance co-operative learning skills and peer correction.

### ***Recommendations for further study***

More motion graphics including sounds should be added to develop the web-based instruction in order to make it more interesting and attractive to learners. Other English language skills in which learners are interested should be developed through the use of web-based instruction. Further, in developing web-based instruction, media experts should always be consulted to make the tool more attractive.

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**APPENDIX A****An example of lesson plan for a control group****Unit 1  
Introduction to Paragraph Writing****Time: 6 hours****Subject: Paragraph Writing****Class: Undergraduate students****No of Students: 50**

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**1. Contents:**

- 1.1 Meaning of a paragraph
- 1.2 Components of a paragraph
- 1.3 Topic sentences and characteristics of a good topic sentence
- 1.4 Supporting sentences
- 1.5 Concluding sentences
- 1.6 Exercises

**2. Terminal objective:**

Students are able to analyse topic sentences, characteristics of a good topic and components of a paragraph effectively including writing a short paragraph containing these components.

**3. Learning objectives:**

By completing this unit, the student will be able to:

- 3.1 explain the meaning of a paragraph.
- 3.2 distinguish and analyse the components of a paragraph.
- 3.3 analyse topic sentences and characteristics of a good topic sentence.
- 3.4 analyse supporting sentences and concluding sentences.
- 3.5 practice doing the exercises.

**4. Procedures:**

- 4.1 The teacher explains learning objectives to students.
- 4.2 Students read the hand outs about the following topics:
  - Meaning of a paragraph and Components of a paragraph
  - Topic sentences and characteristics of a good topic sentence
  - Supporting sentences
  - Concluding sentences

- 4.3 The teacher explains and provides examples based on the content in the hand outs. Then, the teacher and students work together to summarize the content.
- 4.4 The teacher answers students' inquiries.
- 4.5 Students do the exercise at the end of the unit.

**5. Measurement and evaluation:**

- 5.1 From the students' oral presentation
- 5.2 From observing the student's participation in the class.
- 5.3 From evaluation of the assigned unit exercise.

**6. Measurement criteria:**

- 6.1 Passing criterion as 50% of full score

**7. Measurement instrument:**

- 7.1 Observation form
- 7.2 Unit exercises

**8. Teaching aids:**

- 8.1 Text and hand outs

**APPENDIX B****An example of lesson plan for an experimental group****Unit 1  
Introduction to Paragraph Writing****Time: 6 hours****Subject: Paragraph Writing****Class: Undergraduate students****No of Students: 50**

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**1. Contents:**

- 1.1 Meaning of a paragraph
- 1.2 Components of a paragraph
- 1.3 Topic sentences and characteristics of a good topic sentence
- 1.4 Supporting sentences
- 1.5 Concluding sentences
- 1.6 Exercises

**2. Terminal objective:**

Students are able to analyse topic sentences, characteristics of a good topic and components of a paragraph effectively including writing a short paragraph containing these components.

**3. Learning objectives:**

By completing this unit, the student will be able to:

- 3.1 explain the meaning of a paragraph.
- 3.2 distinguish and analyse the components of a paragraph.
- 3.3 analyse topic sentences and characteristics of a good topic sentence.
- 3.4 analyse supporting sentences and concluding sentences.
- 3.5 practise doing the exercises.

**4. Procedures:**

- 4.1 The teacher explains learning objectives to students.
- 4.2 Students read the hand-out introducing how to learn with WBI.
- 4.3 Teacher assigns students to study on WBI about the topics:
  - Meaning of a paragraph and Components of a paragraph
  - Topic sentences and characteristics of a good topic sentence



- Supporting sentences
- Concluding sentences

4.4 Teacher answers students' inquiries via web board or email

**5. Measurement and evaluation:**

- 5.1 From observing the student's participation in the WBI class.
- 5.2 From evaluation of the unit exercise and unit post-test

**6. Measurement criteria:**

- 6.1 Passing criterion as 50% of full score

**7. Measurement instrument:**

- 7.1 Observation form
- 7.2 Unit exercises

**8. Teaching aids:**

- 8.1 A computer connected with the internet.