

EFFECTS OF WRITING INSTRUCTION BASED ON TOULMIN MODEL IN
FLIPPED LEARNING ENVIRONMENT ON ARGUMENTATIVE WRITING
ABILITY OF UNDERGRADUATE STUDENTS

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ผลของการสอนเขียนโดยใช้รูปแบบการสอนของทูลมินในบรรยากาศห้องเรียนกลับด้านที่มีต่อ
ความสามารถในการเขียนโต้แย้งของนักศึกษาปริญญาตรี



วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต
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ภัทรมาศ จันทศิลป์ : ผลของการสอนเขียนโดยใช้รูปแบบการสอนของทูลมินใน
 บรรยากาศห้องเรียนกลับด้านที่มีต่อความสามารถในการเขียนโต้แย้งของนักศึกษา
 ปริญญาตรี (EFFECTS OF WRITING INSTRUCTION BASED ON
 TOULMIN MODEL IN FLIPPED LEARNING ENVIRONMENT ON
 ARGUMENTATIVE WRITING ABILITY OF UNDERGRADUATE
 STUDENTS) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: ดร. พรพิมล สุขะวาที, 137 หน้า.

การวิจัยนี้มีจุดประสงค์เพื่อ 1) ศึกษาผลของการสอนเขียนโดยใช้รูปแบบการสอนของทูลมินในบรรยากาศห้องเรียนกลับด้านที่มีต่อความสามารถในการเขียนโต้แย้งของนักศึกษาปริญญาตรี และ 2) ศึกษาความคิดเห็นต่อผลของการสอนเขียนโดยใช้รูปแบบการสอนของทูลมินในบรรยากาศห้องเรียนกลับด้าน กลุ่มตัวอย่างประกอบไปด้วยนิสิตชั้นปีที่ 4 เอกภาษาอังกฤษ มหาวิทยาลัยมหาสารคาม จำนวน 17 คน ที่ลงทะเบียนเรียนวิชาการเขียนเรียงความแบบอรรถาธิบายและโต้แย้ง ใน ภาคเรียนที่ 1 ปีการศึกษา 2558 การทดลองใช้เวลาทั้งสิ้น 10 สัปดาห์ การเก็บข้อมูลใช้การรวบรวมเชิงคุณภาพและปริมาณ สถิติที่ใช้ในการวิเคราะห์ความแตกต่างระหว่างความสามารถในการเขียนเรียงความโต้แย้งทั้งก่อนและหลังการทดลองคือ สถิติทดสอบค่าที สำหรับข้อมูลเชิงคุณภาพใช้สถิติเชิงพรรณานำเสนอในรูปแบบของความถี่และร้อยละ

ผลการวิจัยพบว่า 1) คะแนนเฉลี่ยของการเขียนเรียงความโต้แย้งก่อนและหลังการทดลองของกลุ่มตัวอย่างเพิ่มขึ้นอย่างมีนัยสำคัญทางสถิติที่ระดับ .05 และ 2) ผู้เรียนมีความคิดเห็นเชิงบวกต่อการเรียนการสอนที่ใช้รูปแบบการสอนของทูลมินในบรรยากาศห้องเรียนกลับด้าน โดยนิสิตมีความเห็นว่า การเรียนการสอนที่ใช้รูปแบบการสอนของทูลมินในบรรยากาศห้องเรียนกลับด้านนั้นได้ช่วยพัฒนาทักษะการเขียนเนื่องจากนิสิตได้มีการเตรียมตัวดูวิดีโอเนื้อหามาก่อน และได้มาฝึกเขียนในห้องมากขึ้น พร้อมทั้งยังได้รับความเห็นและการช่วยเหลือจากอาจารย์ผู้สอนมากขึ้นเช่นกัน อย่างไรก็ตาม ผู้เรียนบางคนมีความเห็นว่า ยังประสบปัญหาในการเรียนอยู่บ้าง เนื่องจากปัญหาทางเทคโนโลยี และเวลาที่จำกัดในการเขียนในห้องเรียนส่งผลให้ผู้เรียนไม่สามารถเขียนโต้แย้งได้อย่างที่ตั้งใจไว้

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The objectives of this study were 1) To examine the effects of writing instruction based on Toulmin model in flipped learning environment on argumentative writing ability of undergraduate students, and 2) To explore the students' perceptions towards writing instruction based on Toulmin model in flipped learning environment. The samples were 17 English major seniors from Maharakham University who enrolled in Expository and Argumentative writing course in the first semester of academic year 2015. The experiment was held for 10 weeks. The data were collected quantitatively and qualitatively. A paired-sample t-test was used to investigate the differences between the mean scores from the pre and post writing test. The qualitative data were analyzed using content analysis.

The findings of the study revealed that 1) there was a significant difference in students' mean scores on English writing abilities before and after the implementation of the writing instruction at the significant level of .05, and 2) students had positive perception of the writing Instruction based on Toulmin model in flipped learning environment. They said that the writing instruction improved their argumentative writing ability since it allowed them to expose to prior contents and practice more in class. They also received more feedback and helps from the teacher too. However, some students said that they had difficulties in learning due to technology problems, and the limitation of time for writing in class.

Field of Study: English as an Student's Signature

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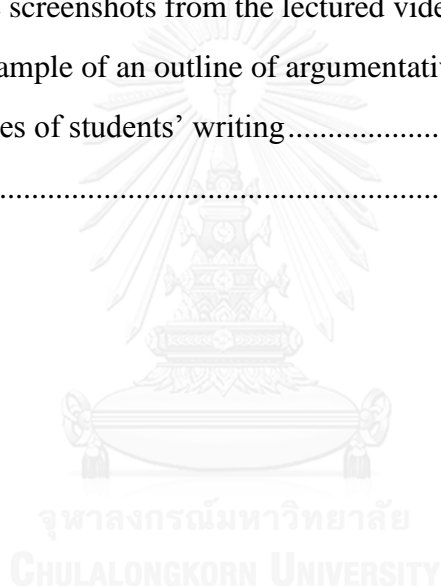
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CONTENTS

	Page
THAI ABSTRACT	iv
ENGLISH ABSTRACT.....	v
ACKNOWLEDGEMENTS.....	vi
CONTENTS.....	vii
LIST OF TABLE	x
LIST OF FIGURES	xi
CHAPTER I INTRODUCTION.....	1
1.1 Background of the Study	1
1.2 Research Questions.....	5
1.3 Research Objectives.....	5
1.4 Statements of the Hypotheses.....	6
1.5 Scope of the study.....	6
1.6 Limitations of the study	6
1.7 Definition of terms.....	7
1.8 Significance of the Study.....	8
CHAPTER II LITERATURE REVIEW	10
2.1. Writing Instruction.....	10
2.1.1 Writing.....	11
2.1.2 Argumentative writing	12
2.1.3 Argumentative essay	13
2.1.4 Argumentative writing assessment.....	16
2.1.5 Related research in argumentative writing.....	19
2.2 Toulmin model of argumentation	21
2.2.1 Toulmin model in writing instruction	23
2.2.2 Related research in argumentative writing instruction based on Toulmin model	25
2.3 Flipped Learning Environment.....	27
2.3.1 Flipped learning and writing instruction	31

	Page
2.3.2 Related research in flipped learning	32
2.4 Conceptual Framework.....	35
CHAPTER III RESEARCH METHODOLOGY	36
3.1 Research Design	36
3.2 Population and Sample	37
3.3 Research Context	37
3.4 Research Procedures	38
3.5 Instructional plans.....	41
3.6 Research instrument.....	51
3.7 Data Collection	54
3.8 Data Analysis	55
3.9 Research Timeline	56
CHAPTER IV FINDINGS	58
Research Question 1	58
Research Question 2	62
1. The result from the questionnaire.....	62
2. The result from the semi-structure interview	65
CHAPTER V SUMMARY, DISCUSSIONS, AND RECOMMENDATIONS.....	86
Summary of the study.....	86
Summary of the Findings.....	88
1. Students' argumentative writing ability	88
2. Students' perceptions of the instruction	88
Discussion.....	89
1. Students' argumentative writing ability	90
2. Students' perceptions of the writing instruction.....	92
Pedagogical Implication	96
Recommendations for Future Research.....	98
REFERENCES	99
APPENDIX.....	107

	Page
Appendix A Student perceptions of the Flipped Classroom Survey	108
Appendix B Semi-structure Interview Questions	111
Appendix C Pretest and Posttest.....	112
Appendix D Toulmin Argumentative Essay Rubric.....	113
Appendix E Lists of Experts Validating the Instruments	115
Appendix F The lesson plan outline	116
Appendix G The example of a unit plan.....	118
Appendix H Sample screenshots of Edmodo website	129
Appendix I Sample screenshots from the lectured videos.....	133
Appendix J The example of an outline of argumentative essay	134
Appendix K Samples of students' writing.....	135
VITA.....	137



LIST OF TABLE

TABLE	PAGE
<i>Table 1 Sample activities for flipped learning environment</i>	<i>28</i>
<i>Table 2 The analysis of the index of item objective congruence.....</i>	<i>48</i>
<i>Table 3 The analysis of the index of item objective congruence.....</i>	<i>53</i>
<i>Table 4 Research Timeline.....</i>	<i>56</i>



LIST OF FIGURES

FIGURE	PAGE
<i>Figure 1 An outline of a five-paragraph argumentative essay</i>	14
<i>Figure 2 The relationship among the six elements of argument.....</i>	22
<i>Figure 3 Research Design</i>	36
<i>Figure 4 Research Procedure</i>	38
<i>Figure 5 Sample screenshots of materials used in flipped sessions for step 1</i>	42
<i>Figure 6 Sample screenshots of materials used in flipped sessions for step 2</i>	43
<i>Figure 7 Sample screenshots of materials used in flipped sessions for step 3</i>	44
<i>Figure 8 Sample screenshots of materials used in flipped sessions for step 4</i>	45
<i>Figure 9 Sample screenshots of materials used in flipped sessions for step 5</i>	46
<i>Figure 10 Sample screenshots of materials used in flipped sessions for step 6</i>	47
<i>Figure 11 Data collection process.....</i>	55

CHAPTER I

INTRODUCTION

1.1 Background of the Study

In Thai society, English has become more significant because of globalization and the rise of investment from foreign countries. English is widely taught in schools and universities. Moreover, for higher education, the proficiency in English is required, especially reading and writing (Tapinta, 2006). For students, being proficient in English is one important requirements for their future's achievement (Kongsontana, 2015). There is a greater opportunities for them to get a better job when they are proficient in English. Writing skills have been emphasized and increased its significance in many contexts of life, such as school, workplace, and community (Graham and Perin, 2007). In this digital era, written communication is one effective communicative way for people to contact with other people from various countries around the world. Writing can be used as a tool to accomplish various goals (Graham & Harris, 2006). For example, in business transactions, writing is commonly used as a tool to contact with clients (Wongsothorn, 2003). Because the message does not have to be delivered instantly, it can be edited and revised several times to shape the content to the maximum effect before sending. Besides the importance of writing skills in business, Foley (2005) pointed out some fields where writing proficiency seems to be required which are including tourism, international law, scientific publications, technology transfer, and Internet communication.

Besides the fields mentioned above, writing skills play a vital role in educational field too. Writing is used as both a standard system of communication and a tool for acquiring knowledge (Boonpattanaporn, 2007). In university, students in some fields are required to write papers in English. It might include essays, assignments, reports or even research papers. In addition, in recent years the number of Thai students who pursue their education in Western countries is increased (OECD, 2013). Those who want to study abroad, to be able to deal with their writing assignments effectively, need to be fluent in English writing. Furthermore, for students who are good at using English writing skills, they will have better

opportunity to compete for international research funding or scholarship, as well as their career choices or professional advancement. There are several genres of writing that students commonly encounter in university. One of them is argumentative writing (Ka-kan-dee & Kaur, 2014; Wu, 2006). Argumentative writing requires students to take a stance and provide strong evidence, and reasons to support their stance so that the writing piece can convince the readers to accept the idea which is based on a controversial issue. Writing argumentative essays not only helps students acquire knowledge (Driver, Newton, & Osborne, 2000; Schwarz, Neuman, Gil, & Iiya, 2003), but it also increases the students' performance in solving problems as well as increases their intrinsic motivation in the academic setting (Chinn, 2006). It is important for students to be able to write argumentative essays, not only for university assignments, but also for standardized tests of English proficiency such as TOEFL, IELTS, and GRE which students need to take if they want to study abroad.

Argumentative writing is a problematic task for both ESL and EFL students (Ka-kan-dee & Kaur, 2014). It requires effort and practice. Moreover, to write in a second language is even more difficult, because it involves not only the ability to construct a text, but also the ability to use the target language in order to express ideas effectively (Boonpattanaporn, 2007; Zhu, 2009). In composing argumentative writing, ESL and EFL students often encounter difficulties in the use of complex syntactic patterns and appropriate elements (Ka-kan-dee & Kaur, 2014). In addition, the major challenges that ESL students encountered when writing argumentative essays were the rhetorical concerns (organization and development of arguments), and linguistic aspects (vocabulary, and grammar) respectively (Zhu, 2009). (Al-haq and Ahmed (1994)) also reported that the most problematic issue of argumentative writing for Saudi students was the insufficient knowledge of the organization of argumentative essays, along with the balanced quantity of arguments and counter arguments, development, support, organization, clarity, and qualification of thesis statement. For Thai university students, many researchers (Pongsiriwet, 2001; Tawailapakul, 2003; Wongsothorn, 2003; Tuppoom, 2005) indicated that students generally exhibited low levels of skills in writing, especially in argumentative essays. Promwinai (2010) found that Thai EFL students have problems with many areas ranging from idea

organization to grammar structure. She emphasized that Thai students have little experience of composing texts because in a typical writing English classroom in Thailand, teachers only requires students to write just a few times throughout the semester. Writing effectiveness, especially in terms of textual organization, can be affected by the limited exposure to writing. Furthermore, most Thai students cannot write a good argumentative essay for two reasons. Firstly, they are incompetent to provide a convincing thesis statement. Secondly, they lack readiness for English argumentative writing and sufficient writing practice while studying in class (Ka-kan-dee & Kaur, 2014).

Many researchers have confirmed that the most difficult genre of writing is argumentative writing (Ferris & Hedgcock, 2004; Neff-van Aertselaer & Dafouz-Milne, 2008). Nippold and Ward-Lonergan (2010) mentioned that “argumentative writing is a challenging communication task that needs sophisticated cognitive and linguistic abilities”. To write arguments, students must go through a complicated writing process which are including 1) identifying a problem, 2) evaluating evidence, 3) creating hypotheses, and 4) redefining the hypotheses based on the new ideas and evidence (Schultz, 1991). In order to help students constructing arguments, several models of argumentation are introduced. The most well-known model which is widely used in teaching and researching is the Toulmin model of argumentation (Erduran, Simon, & Osborne, 2004).

The Toulmin model of argumentation suggests that there are six components in effective arguments: claims, evidence, warrant, backing, rebuttal, and qualifier. The first three components are required in every argument, while the latter three are optional. The Toulmin model can help students when writing argumentative essays in two ways: it helps them to present their positions coherently as well as to further check the soundness of the claims they use to develop their overall argument (Hillocks, 2010). Many researchers expressed their preference of teaching Toulmin’s logic in the composition classroom due to its simplicity, completeness, and heuristic power, and they also suggest some activities in order to apply the model in teaching (Locker & Keene, 1983; Rottenberg, 1985; Karbach, 1987; Hillocks, 2010). However, for students to be good at writing, only the model is not enough. They need to bring

the model into practice. As Ka-kan-dee & Kaur (2014) and Promwinai (2010) mentioned, one reason that most Thai students are incapable to write a good argumentative essay is the lack of preparedness and sufficient in-class writing practice. In ordinary classroom, students usually have less opportunity to practice writing. Because there is a limitation of time and a lot of contents to be covered, teachers need to spend most of the class time to deliver the contents; hence, there is not much time left for practice. However, there is a recent concept that can help teachers effectively manage class time. It is called Flipped learning (Barseghian, 2011; Bergmann & Sams, 2012; Tucker, 2012).

Flipped learning is a shift of direct instruction, which is normally occurred in class, to outside of classroom by using digital technologies so that classroom time can be used more effectively and creatively (Wiginton, 2013). It means that the location of where lecture and homework are reversed, and there are more class time available so that teachers can use various methodologies of teaching to create learning environment that students can be actively involved and engaged in learning. Offloading direct instruction in this way, teachers can pay attention to utilize valuable face-to-face class time. Students can use class time to collaborate with their peers more effectively, engage more deeply with content, and pay attention to practice skills (Hamdan, McKnight, McKnight, & Arfstrom, 2013). In this study, the students will learn the concept of writing online via the videos made by the teacher, and they will spend class time to bring the concepts into practice. Their writing competency can be improved through multiple practices under supervision of the teacher. Since there is more time available, the teacher can give suggestions and feedback to students individually as well as pay more attention to students who may lack behind in class (Cockrum, 2014).

However, some students in a flipped classroom might feel unsettled because this type of class is new for them. To elaborate, with unpredictable class time and various learning activities, some students might think that it is difficult to accustom to a flipped classroom (Strayer, 2008). Some studies suggested that most students have positive perceptions of a flipped classroom because available class time is used more efficiently and flexibly. Moreover, there are also more interactive class activities

which they enjoy participating, and less homework outside the classroom (Johnson, 2013). Although students might have different perceptions of learning in a flipped classroom, flipped learning is still an interesting approach that helps students improve their performance in learning. There are few studies about the effectiveness of flipped instruction in university level. Even fewer studies aim to examine the effectiveness of flipped instruction in English class, especially on writing skills.

In order to raise students' argumentative writing ability, the researcher would like to employ writing instruction based on Toulmin model in flipped learning environment, so that students will have a model for writing and have more time to practice in class with helps from the teacher. Therefore, in this study the researcher aims to find out the effects of writing instruction based on Toulmin model in flipped learning environment on argumentative writing ability of undergraduate students as well as explore the students' perceptions towards writing instruction based on Toulmin model in flipped learning environment.

1.2 Research Questions

In this study, the researcher attempts to find answers to the following questions:

1. To what extent does writing instruction based on Toulmin model in flipped learning environment affect argumentative writing ability of undergraduate students?
2. What are the perceptions of students towards writing instruction based on Toulmin model in flipped learning environment?

1.3 Research Objectives

The objectives of this study are:

1. To examine the effects of writing instruction based on Toulmin model in flipped learning environment on argumentative writing ability of undergraduate students.

2. To explore the students' perceptions towards writing instruction based on Toulmin model in flipped learning environment.

1.4 Statements of the Hypotheses

The following hypotheses are formulated in the present study:

1. The writing instruction based on Toulmin model in flipped learning environment enhances the students' argumentative writing ability.
2. The students have positive perception towards writing instruction based on Toulmin model in Flipped learning environment.

1.5 Scope of the study

The population for this study was English major undergraduate students from Mahasarakham University. The research was conducted with 17 English major seniors who enrolled in Expository and Argumentative writing course in the first semester of academic year 2015. Data collection was obtained from pre- and posttest, questionnaire, and interview.

The independent variable in this study was the writing instruction based on Toulmin model in flipped learning environment. The dependent variable in this study were students' writing ability, and student's perceptions of writing instruction based on Toulmin model in flipped learning environment.

1.6 Limitations of the study

The sample in this study was small. Therefore, the research finding might not be generalized to the other groups of population.

The study employed a quasi-experimental with one-group pretest-posttest design. With this design, the differences between the pretest and posttest scores might have been affected by uncontrolled internal threats.

1.7 Definition of terms

Writing instruction: in this study, writing instruction referred to a 10-week course that designed to teach argumentative writing. The introduction of argumentative writing, organization of argumentative writing, and the way to construct arguments were taught in this course.

The Toulmin model of argumentation: Toulmin introduced his model of argument with six elements: claim, evidence, warrant, backing, qualifier, and rebuttal. The first three components were essential in every argument, while the latter three were optional. The six elements of Toulmin model in this study were defined as follows:

Claim: a position or a side of an issue that the author argued for.

Evidence: support for your claim.

Warrant: a link or a connection between evidence and claim in order to establish mutual understanding between audiences and the author.

Backing: further support for your warrant

Qualifier: a word or a phrase that expresses degree of possibility such as probably, possibly, usually, or in most cases

Rebuttal: an opposing ideas to the claim or a counterargument.

Writing instruction based on Toulmin model: was an argumentative writing instruction based upon Toulmin model of argumentation. In this study, the concepts of all six elements were provided to students in order to help students construct effective arguments, and then students spent time on practice writing arguments based on the model. In the end of the course, they were expected to be able to produce good argumentative essays with the presence of all six components.

Flipped learning environment: referred to a classroom that shifted direct instruction to outside of classroom by using digital technologies, so that available class time could be used for practice effectively and creatively. In this study, out of class, students were required to watch lectured videos and do online assignments related to the lectured videos and they had to finish the assignments before coming to class. In

class, the students mainly practiced argumentative writing with suggestions of a teacher, along with group discussions and brainstorm activities.

Writing instruction based on Toulmin model in Flipped learning environment: in flipped learning environment, the direct method of delivering content was occurred outside the classroom via VDO clips and other materials provided. Students watched lectured videos of a guide to write argumentative essays based on Toulmin model at home. After that, they came and practiced writing in class.

Argumentative writing ability: referred to an ability of students in writing a five-paragraph argumentative essay by taking a stance, using facts and evidence to support their viewpoint, and using logic to explore the reasons behind each claim. In this study, it was assessed by comparing a pretest score and a posttest score after the treatment. T-test was employed in order to evaluate the significance of the differences between the pre-test and post-test scores.

Students' perception: referred to an interpretation of sensory information that the students received from their learning experience in a flipped learning environment with the writing instruction based on Toulmin model. The students' perception was investigated in three aspects: usefulness, engagement, and the students' preference in learning in a flipped classroom. The students were asked to complete a questionnaire and some of them were interviewed to gain information related to feelings about the instruction, advantages and disadvantages of the instruction, and additional comments.

Undergraduate students: in this study referred to 17 English major seniors who enrolled in Expository and Argumentative writing course in the first semester of academic year 2015 at Mahasarakham University.

1.8 Significance of the Study

The result of this study is beneficial for teachers and students who are interested in teaching, learning, and doing research involved argumentative writing.

For teachers, the study provides a practical method to change the ordinary way of teaching writing in the classroom by using technology. It suggests the idea of maximizing class time usage in order to improve students' writing ability by implementing flipped learning to writing classroom. In addition, the study offers a useful model for teachers to help their students construct effective arguments. Furthermore, Teachers can bring the data from the study to adjust their teaching techniques to be appropriate to each group of students as well as for doing further research.

For students, the study shows the model that helping them to construct arguments and write argumentative essays. Students can use the Toulmin model as a guideline for writing, analyzing and evaluating their argumentative essays. They can check the required elements in argument as well as check the link between claims and evidence whether it is logical or not. Moreover, with the flipped learning, students will receive new experience of learning with technology. They will be more motivated. Moreover, they are able to learn to manage their time in learning as well as adjust a pace of learning to suite their learning preference.

CHAPTER II

LITERATURE REVIEW

This chapter provides reviews of literature and related research to argumentative writing, Toulmin model of argumentation and flipped learning environment. Four main topics are discussed in this chapter including a) writing instruction, b) Toulmin model of argumentation, and c) flipped learning environment.

2.1. Writing Instruction

Basically, there are two main approaches for teaching writing: the product approach and process writing approach. The product approach aims to develop students' accuracy rather than fluency. That is, linguistic knowledge is the main focus of this approach. As Pincas (1982) mentioned, writing is seen as a way to develop student's grammatical knowledge, vocabulary, syntax, and cohesive devices. In Thailand, Siithitikul (as cited in Dueraman, 2012) argued that most methods of English teaching are still traditional approaches which writing is seen as a way to practice grammatical structures. The focus of teachers is on the mastery of grammar and vocabulary rather than the development of discourse organization. Students normally practice through drills at levels of sentences, through controlled writing, and through guided writing. The final product is expected to meet the standard of rhetorical style with no grammatical error. However, this method does not equip students with sufficient knowledge of structures, organizations and development of written texts (Hammond, 1989). Then, there is a shift of the focus of research from final product to the composing process which can help students focus on the development of writing pieces instead.

Process writing approach emphasizes on the active role of the writer in formulating, revising and editing ideas. Writers primarily pay attention on the purpose and content of the messages that they want to convey to the readers, not just on the forms of the language. Writing is seen as a complex and recursive process. The writers can go back and forth from one step to another in nonlinear steps when they need. There are many terms and patterns used to describe the writing process

suggested (Tompkins, 1999; Trimmer, 2004; Brandon, 2005; Raimes, 2005), but the core elements are similar: prewriting, writing, revising, and editing. Teachers, instead of emphasizing on form, should provide various classroom activities which presumably important to help students to develop strategies for creating, drafting, and improve ideas (Hyland, 2003). Studying and following the steps in the writing process is important since it can help students to discover their own voice, to recognize what they want to say, to organize their ideas, to choose their own topic, to get feedback from peers and teachers through multiple drafts (Matsuda, 2003). Additionally, Zamel (1982) concluded that there was an improvement of students' writing performance when they understood and experienced writing as a process. Since process writing wants students to create multiple drafts, they can organize their ideas, and edit their writing piece many times. Through this approach, students can explore what they write and they can develop understanding about their writing as well.

2.1.1 Writing

Writing is a way to discover, organize and communicate writers' thoughts. It is important and complicated. It is even more difficult if it is performed in another language since it involves not only ability to construct a text, but also ability to use the target language in order to express ideas effectively. There were many different ways to define writing. However, many researchers (Ontario, 2005; Lerdejdech, 2007; Bhumadhana, 2010) agreed that writing is a process of expressing writer's ideas in a form of written productions which requires accuracy and appropriateness of language. It is not a simple process of translating words from one language to another. It is more complicated. It comprises of several recursive steps such as planning, drafting, revising, editing, feedback, and sharing.

These days, writing skills have increased its significance and become a crucial tool for communication. According to Hyland (2003), the proficiency of writing skills crucially involved with the ability to communicate ideas effectively. Writing can be used to accomplish various goals (Graham, 2006). For example, in business transactions (Wongsothorn et al, 1996), email is one form that normally used for communication. It does not have to be delivered instantly. The message can be edited and revised several times before sending. Writing skills play a vital role in the

educational field as well. Writing is normally used as both a basic communicative channel and a tool for acquiring knowledge (Boonpattanaporn, 2007). Moreover, writing can encourage the use of strategies such as planning, drafting, and editing and revising, and it also can be used as a medium for learning other subjects or fields (Suthiwartnarueput, 2012).

In university, it is necessary for some students to write essays, reports or research papers in English. Grabe and Kaplan (1996) asserted that EFL students need English writing skills to write essays and professional articles. The skill they needed is ranging from writing simple paragraph to summarization. As the number of Thai students who pursue their education in Western countries is increased (OECD, 2013), those who want to study abroad need to be fluent in English writing in order to be able to deal with their writing assignments effectively. Having good English writing skills are not only beneficial for university assignments, but it also provides many good opportunities for students. Students who are fluent in English writing will have more chances to compete for international research funding or scholarship as well as for finding jobs. Nunan (2003) mentioned that almost all jobs require candidates' English proficiency, and it is one of essential criteria for work promotion. Since the importance of writing has been recognized, schools and universities have offered many types of writing courses. One of the most common genres that students usually found in a university is argumentative writing.

2.1.2 Argumentative writing

In writing, argument has two main functions: help the writers clarify their thinking on an issue as well as convince audiences toward the writer's stance (Ramage and Bean, 1989). By using reasons, it helps writers to take a stand and to clarify their belief. Varghese & Abraham (1998) mentioned that in university level, students are often required to write arguments which they need to express their own points of view appropriately and academically. Students are required to write various papers during their year; therefore, they need to be well trained in argumentative skills as it is useful for their writing (Hutiu, 2013). Furthermore, not only for undergraduate students, but the ability of writing arguments also plays an important part for postgraduate students who have to write theses, dissertations or research

papers. In addition, sometimes in college, students might work with an interpretation of literature, history or academic papers. They have to debate over a controversial issue. Therefore, they need to be able to make a claim, present the relevant evidence for the claim and they need the ability to predict opposing ideas of their claim. Besides the importance of argumentative writing in education, The National Governor's Association Center for Best Practices and the Council of Chief State School Officers (as cited in Hillocks, 2010) suggested that in some cases, an argument is essential for students in order to apply for higher education or to get a career. For instance, in the workplace, an employee might write an argument to recommend their qualification.

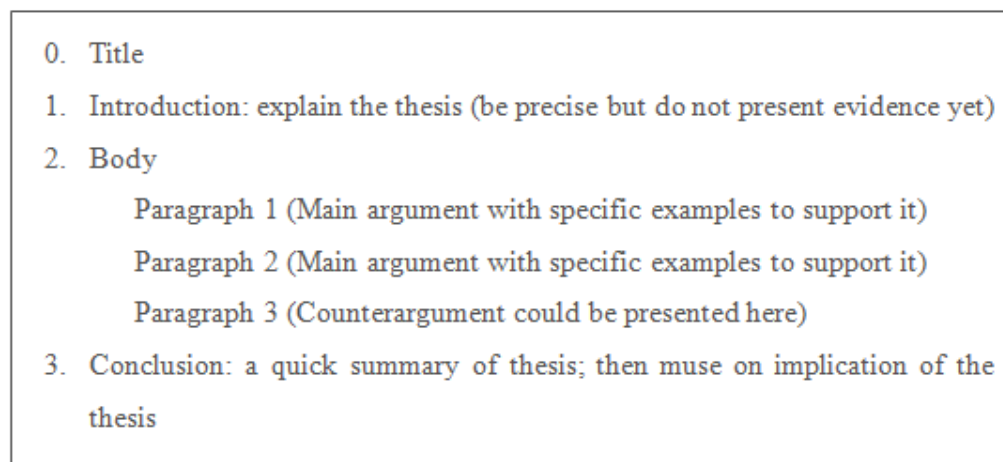
To write arguments, there are several complex steps that students need to go through including identifying a problem, evaluating evidence, creating and testing hypotheses, and improving the hypotheses according to new ideas and evidence (Schultz, 1991). Moreover, for an effective argument, an arguer is required to clarify and support the reasons presented (Ramage & Bean, 1989). Three cores components of argumentation should be concerned in order to develop an effective argument: the development of a position, the use of logical and relevant evidence and reasons to present the position, and their use in the development of the position (Wingate, 2010).

2.1.3 Argumentative essay

There are some confusion that often occurred between an argumentative essay and an expository essay. The differences between the two genres are that the expository essay aims to inform or explain an issue to your audience in a neutral and objective way, while the argumentative essay is a writing genre that writers are requires to write arguments as a response to a controversial topic by stating their claim and providing sound reasons to support it, so that the readers can be convinced to accept the idea (Baker, Brizee, & Angeli, 2013). It is necessary for a writer to do well research as well as explore accurate, detailed, and current information to support the thesis statement, along with consider opposing viewpoints (Baker et al., 2013). Argumentative essay is the most common genre that students have to write in a university. It is especially important in some fields such as arts, humanities and social sciences (Wu, 2006).

Four main components of an argumentative essay: a debatable topic, the writer's stance, critical arguments, and supporting evidence (Qian, 2010). To write argumentative essays, writer need to comprehend the controversial topic, take certain position, provide supporting evidence and data in order to make readers believe that the claim deserves their acceptance. To write an argumentative essay, the five-paragraph approach is a common method that teachers usually introduce in class (Baker et al., 2013). The five-paragraph essay is a useful approach that could help students craft an effective text with time limit (Smith, 2006). Basically, the five paragraphs are including an introduction, three body paragraphs with counterarguments, and a conclusion. There are many examples of an outline of a five-paragraph argumentative essay. One sample adapted from Endy, (2011) is presented as follows

Figure 1 An outline of a five-paragraph argumentative essay



Based on the outline from Endy (2011), the *Title* of the essay should provide a brief and catchy summation of the argument in an essay, and it could be write at last, after you finish writing your essay, since it depends on the final argument. For the first paragraph—*introduction*, students should set a context, provide general background, and elaborate the importance of their issue. At the end of the introduction paragraph, it is important to write a clear, concise, and defined thesis statement to state your position on an issue with a brief explanation of the main reasons. It will be

troublesome when writing an effective argumentative essay if the students do not provide a clear thesis statement (Baker et al., 2013).

Then, the next part of a five-paragraph argumentative essay is *three body paragraphs*. Each paragraph should start with a claim which we know as a topic sentence. The claim in each paragraph must logically connect to the thesis statement in the introduction paragraph (Baker et al., 2013). After stating the claim, the writer provides supporting evidence. Furthermore, it is important to clarify warrants in order to show the relationship of the evidence and the claim—how and why the evidence supports the claim. According to Baker et al. (2013), the characteristics of a strong argumentative body paragraph are that the argument in the paragraph is clearly explained, proved, or sufficiently supported by relevant and credible evidence. Lea and Street (1998) (as cited in Qian, 2011) mentioned, the key feature of successful argumentative writing is the development of an argument. There is a model that helps constructing argument in a logical way called Toulmin model of argumentation. It breaks the argument down into 6 parts: claim, evidence, warrant, backing, qualifier, and rebuttal. With a formula, it is a common and easy to organize an effective argument (Baker et al., 2013). However, the last paragraph of the body paragraphs could be about rebuttal or counterargument. Including rebuttal in an argumentative essay helps the argument stronger, because it is a proof that a writer anticipates doubts and possible objections that a skeptical reader might have as well as a writer is objective from considering an issue from both sides (Havey, 1999).

The last section of a five-paragraph argumentative essay is conclusion. The conclusion paragraph should present a closure, future possibilities, and implications of the topic (Bellanca, 1998). *Conclusion paragraph* is like a short summary of the essay. Based on Baker et al. (2013), the conclusion paragraph should begin with restating the main points of the argument. After that, a writer can include call for action, or overview future research possibilities, but to avoiding confusing, a writer should not contain new information in this section.

An argumentative essay has been confirmed by many researchers that it is the most difficult genre of writing (Ferretti, Andrews-Weckerly & Lewis, 2007; Neff-van

Aertselaer & Dafpuz-Milne, 2008). The writing genre requires students to take side and state a clear viewpoint. Then they need to use evidence and data to support their view, and try to convince the reader to agree with their perspective. When writing arguments, students must go through a complex writing process including identifying a problem, evaluating evidence, creating hypotheses, and improving them based on new ideas and evidence (Schultz, 1991). It takes efforts and time to go through these processes. In addition, Nippold and Ward-Lonergan (2010) noted that sophisticated cognitive and linguistic abilities are two important things that are needed in writing argumentative essays. That makes writing an argumentative essay a challenging task. To be able to express the meaning effectively, students need to be good at both logic and correct use of language. Moreover, to write in a second language is even more difficult. As Boonpatanaporn (2007) mentioned, in order to express ideas effectively, writing argumentative essay needs the ability to construct a text as well as the ability to use the target language. From many studies, the main problems of ESL and EFL university student in writing argumentative essay are related to the use of complex syntactic patterns and appropriate elements (Ka-kan-dee & Kaur, 2014). Since argumentative essay involves complex process and many elements such as cognitive and linguistic ability, the assessment of this type of writing are concerned with many elements as well.

2.1.4 Argumentative writing assessment

Hillocks (2011) mentioned that argumentative writing is concerned with logic appeals. It means to make readers acknowledge that your claim is valid by using relevant reasons, creditable facts, and sufficient evidence. For the argument to be effective, an arguer is required to clarify and support the reasons presented (Ramage & Bean, 1989). In addition, Bassham, Irwin, Nardon, and Wallace (2008) suggested that the success of argument depends on “how well you defend your claim and how fair, accurate, and honest you are in presenting your case”. It can be seen that development of arguments is more important compared to accuracy of language when writing arguments. Therefore, the development of a good argument should be focused.

Damer (2005) suggested that a good argument must meet five criteria: the structural principle, the relevance principle, the acceptability principle, the sufficiency principle, and the rebuttal principle. To elaborate, first, a good argument must be structurally well-formed which means premise and conclusion should go in the same way. In other words, premises should support the conclusion. Second, premises in the argument must be relevant to the truth of the conclusion. Their relevance is often determined by the relation to the other premises. Third, premises must be acceptable, which can be determined by a rational person using generally agreed based on evidence available. Fourth, premises must have sufficient grounds for the conclusion. It is the most criteria to be applied because each argumentative context has different sufficiency demands. Experience in evaluating arguments helps to figure out whether the premises are sufficient for the conclusion or not (Damer, 2005). Lastly, a good argument should contain premises that anticipate rebuttal. In other word, when writing argument, the most obvious challenge should be mentioned and the rebuttal premises should be used to blunt that force.

Basically, a five-paragraph argumentative essay is composed of three main paragraphs: introduction, body, and conclusion (Endy, 2011). Each paragraph has different criteria to assess its quality. As Daly (1997) mentioned that for an argumentative introduction paragraph, it should introduce a topic, state why the topic is important, state a possible opposing idea to the topic, and describe how the ideas of the whole essay will be structured. The most important part in the introduction paragraph is a thesis statement. For argumentative essays, the thesis statement must state the position of a topic clearly, be concise and arguable, and it might provide a brief explanation of the main reasons (Baker et al., 2013). Baker et al. (2013) mentioned that it is important for a body paragraph to present one argument in each paragraph. The paragraph must contain a claim which logically connects to the thesis statement, and related, credible, and sufficient evidence that supports the claim. It is also significant to explain the warrant; in other words, the reasons how the selected evidence support the claim. Moreover, to be fair for the readers, when writing argumentative essays, a writer should consider and explain opposing points of view as well so that the readers can receive information from both sides. It means that a

rebuttal or a counterargument part should be included in the body paragraph as well (Harvey, 1999). For assessing an argumentative conclusion paragraph, three questions should be concerned: a) does the conclusion restate the thesis statement?, b) does it present a brief summarization of your arguments from your body paragraphs, and c) does it provide a warning or a possible action of not following the side that the writer has chosen, and/or does it provide a statement of how benefit the community will receive (Daly, 1997).

Since the development of an argument is the heart of an argumentative essay (Qian, 2011), there is one well-known model that used among teachers to assess arguments called Toulmin model of argumentation (Erduran et al., 2004). It stands out due to its practicality and accuracy (Nimehchisalem & Mukundan, 2011). Toulmin model has been widely used not only for writing instruction, but also for assessment of arguments as well (Erduran et al., 2004). It is a model for analyzing an argument in details by breaking the argument into six parts (claim, evidence, warrant, backing, qualifier, and rebuttal), and deciding the effectiveness of those parts in the overall whole (Nesbitt, 2012). For these reasons, Toulmin model is one effective model to be used for assessing arguments.

Overall, it can be concluded that if any arguments are structurally sound, contains relevant, acceptable, and sufficient number of premises as well as counterarguments, they are counted as good arguments. Hence, when it comes to argumentative writing assessment, these criteria should be concerned. Moreover, Toulmin model of argumentation is a beneficial model for assessing arguments. It divides arguments into parts and evaluating each of them. Therefore, in this study, Toulmin model was used to evaluate arguments that the students' have written in their body paragraphs. However, to produce a good argumentative essay, besides the development of argument, correct use of language such as grammar, coherence and cohesion should be concerned too because it affects the effectiveness of text meaning. However, constructing effective arguments is not an easy task. There are many difficulties of writing argumentative essay that the students encountered. The related studies in argumentative writing are reviewed in the next section.

2.1.5 Related research in argumentative writing

Several researchers investigated the difficulties in writing argumentative essays of ESL and EFL students and approaches to improve students' argumentative writing ability. The findings are similar in the way that producing good argumentative writing is a challenging task for the students.

Al-Abed-Al-Haq and Ahmed (1994) examined 62 argumentative essays written by Saudi university students learning English as a second language. They found that the most problematic issue of argumentative writing for Saudi students were the quantity, argumentativeness, and thesis. The issues related to quantity were the problems in completing, and balancing in arguments and counter arguments. The issues related to argumentativeness included development, support, organization, and persuasiveness of argument, while the issue about thesis statement included clarity and qualification of the thesis and the direction the thesis provides for the readers.

Zhu (2009) examined the difficulties, writing processes, and strategies of 14 Mexican graduate students who were in teaching English as a second language program at a US university on an argumentative writing assignment. Their native language was Spanish. The results from the student's perspective showed that they experienced various difficulties. The major challenge was the rhetorical concerns (organization and development of arguments), followed by linguistic aspects (vocabulary, and grammar). In addition, the results pointed out that the participants perceive organization and development of arguments as the most difficult areas.

Promwinai (2010) examined the writing quality of argumentative essays written by two postgraduate Thai students in Australia. The result indicated weaknesses the learners bring into their argumentative writing tasks and what linguistic resources they need to develop success in this type of writing. The results showed that the students were incompetent in areas ranging from idea organization to grammar structure. In addition, they had little experience of composing texts because in a typical writing English classroom in Thailand, throughout the semester, teachers only requires students to write just a few times. Writing effectiveness, especially in textual organization, can be affected by the limited exposure to writing.

Saito (2010) aimed to find out the major characteristics of argumentative essays written by English major students. The instruction was based on the integrated process-genre approach. 37 students who enrolled in composition course participated in this study. The students were asked to write a first draft on an argumentative topic and revised their draft according to feedback and comments from the teacher. Both drafts were scored by two raters. For quantitative data, the scores from both drafts were compared by using t-test. For qualitative data, Toulmin model of argumentation was used to analyze the data. The result significantly revealed that the students could produce well-organized, and well-developed argumentative essays with four major elements including claim, data, opposition, and refutation. Moreover, the students showed their improvement in developing claim, data, opposition, and refutation as well.

Ka-kan-dee and Kaur (2014) investigated Thai EFL English major students' difficulties of writing argumentative essay. The result showed that the students experienced various difficulties. The main difficulties included "vocabulary, grammar structure, structure of argumentative writing, providing solid evidence, time constraints, organized idea, fulfilling task demand, understanding the questions, L1 transfer and translating, writing the thesis statement, interpreting the questions, pacing, evaluating, topic choice and length". In addition, most Thai students are incompetent to provide a convincing claim. Moreover, they also lack preparedness for English argumentative writing as well as sufficient in-class writing practice.

From the findings above, writing argumentative essays is a real challenge for both ESL and EFL students. The obvious problems of writing argumentative essay are organization and development of arguments, followed by grammatical issues. That is because writing argument requires linguistic abilities and sophisticated cognitive. Students need the ability to use the target language in order to express ideas effectively as well as the ability to construct a text, to propose a convincing thesis, and strong evidence. Therefore, in order to help students constructing arguments, several models of argumentation are introduced in composition classroom. One of the most well-known models widely used in teaching and researching is the Toulmin model of argumentation (Erduran, Simon, & Osborne, 2004).

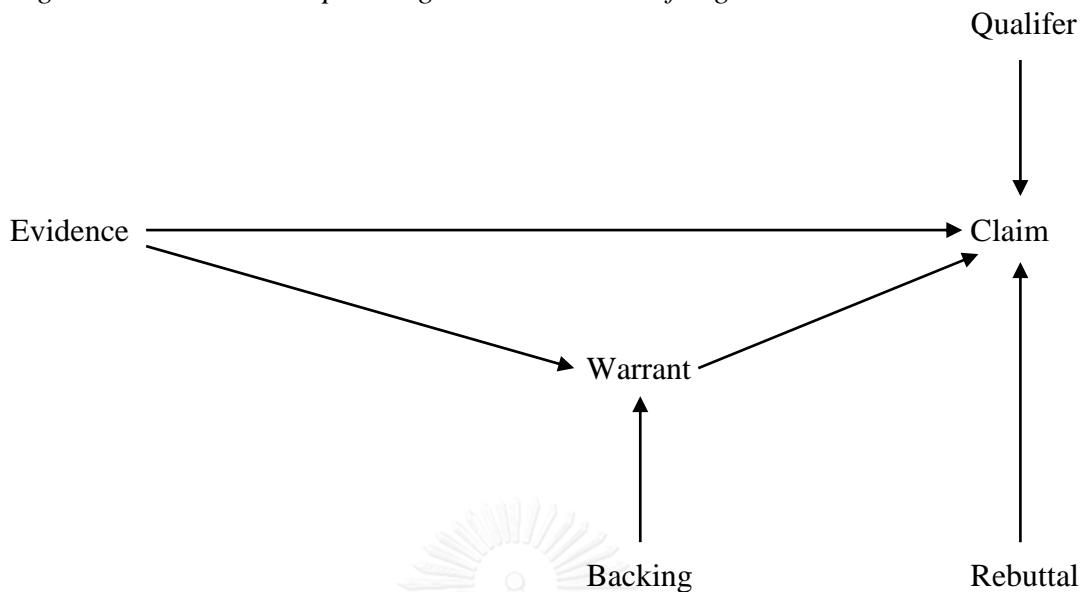
2.2 Toulmin model of argumentation

In order to help students constructing arguments, several models of argumentation are introduced in composition classroom. Toulmin model of argumentation is the most well-known model that many teachers use to teach students in terms of helping them construct arguments, especially when they write argumentative essays (Erduran, Simon, & Osborne, 2004). The Toulmin model of argumentation was developed by the British philosopher, Stephan Toulmin. He offered a system of rational argument that features simple reasoning compared to the system of formal, logic, traditional argument that has been placed for hundred years. Toulmin (1958) mentioned in his books (*The use of argument*) that all arguments have basically the same structure included claims, evidence, warrant, backing, rebuttal, and qualifier. The first three elements are required in every good argument, while the three latter are optional. Based on Toulmin, all six elements are explained as follows:

- *Claim* is a main point of the argument that arguers are trying to prove, propose, and conclude.
- *Evidence* is data that support the claim. It may include facts, statistics, expert opinions and logical reasons.
- *Warrant* is the assumptions, premises, or principles that link the data to the claim. It can be implied or explicitly stated. It explains why the evidence supports, or proves, the claim.
- *Backing* is further facts or data that support warrant.
- *Rebuttal* is a counterargument or an exception that may be offered to the claim.
- *Qualifier* is a word or a phrase expressing the degree of force or probability concerning the claim such as probably, usually, most, presumably, as far as evidence goes, and so on.

The relationship among the six elements of argument is presented in the following figure (Hillocks, 2010).

Figure 2 The relationship among the six elements of argument



From figure 2, the relationship among the six elements of Toulmin model can be explained that a claim is made based on evidence; in other words, evidence supports a claim. A warrant is a connection or a link between the claim and the evidence. It explains how the evidence supports the claim. Backing is further evidence, reasons, or data that supports the warrants. Qualifier is involved with the claim by expressing the degree of force or probability of the claim. A rebuttal is an opposing idea to the claim that a writer consider when writing about an argumentative issue.

A number of researchers have shown their preference to implement Toulmin model in a composition class. Rottenberg (1985) looked at Toulmin model as a simple method of defending claims. She had supervised hundreds of teaching assistants and found that they were appreciated with the model due to its straightforward and simple features. Similarly, Locker and Keene (1983) have found Toulmin model both straightforward and easy-to-apply for students. They considered the model a valuable tool for students who have little training in formal logic because of “its simplicity, completeness, and heuristic power”. They asserted that the model does not require a long period of time to be understood. Instructors can teach the model within 20 minutes and use the model to show the weakness or inadequate logic in students’

writing, but best of all, students can use the model as a heuristic to check the logic in their own rough drafts. Moreover, Yeh (1998) supported that the Toulmin model is useful for writing teachers. They could translate the component parts into “steps” and then use the steps to guide students through the process of writing argumentative essays.

It can be seen that Toulmin model has been adopted in many composition classes because it is clear and easy to follow, and it also provides writers and readers with basic guidelines to construct argument. Moreover, it does not require much time to be taught. Therefore, students have more time to pay attention on writing practice instead of learning concepts for hours.

2.2.1 Toulmin model in writing instruction

Hillocks (2010) argued that without explicit instruction, students tend to write arguments which lack of evidence and are based solely on their opinions. In addition, McCann (1989) and Knudson (1992) analyzed students’ argumentative essays and they found that students had problems with warranting arguments, providing effective evidence, and opposing ideas. Furthermore, Burlehalter (1995) and Crammond (1998) also mentioned that warranting arguments was the most difficult thing for students when writing arguments. In order to help students solve the problems, Toulmin model was one effective model that teachers chose to teach in argumentative writing course.

Several researchers have suggested some teaching ideas to implement Toulmin model in class (Hillocks, 2010; Irish, 2003; Karbach, 1987). To illustrate, Karbach (1987) suggested several steps of teaching Toulmin model as follows:

1. A teacher begins with explaining the three major elements: claim, evidence, and warrant.
2. Then the teacher might ask students to discuss and identify the three basic elements from sample arguments. It is also one way to introduce the model. During the discussion, students will learn and develop understanding about the model.

3. Then, it's students' turn to make their own claims and provide supporting evidence.
4. After that, the teacher mentions that it is important for students to determine the audience, because whether the warrant should be implied or stated are depending on the audiences. Then, the students write their warrant.
5. After the students develop their arguments, in order to analyze the arguments, the teacher encourage students to answer the questions: What do I want to prove? What do I have to go on? How do I get from evidence to claim? The arguments and their analysis will reveal how well the students have understood the construction of arguments.

Similarly, Irish (2003) used Toulmin with engineering writers as a model for writing. He started from introduced all six elements of the model through a straightforward example, and gave students a passage that contained all six elements. The students, in groups, identified the elements and justified their decisions. Then they analyzed their own papers which were written outside of class, and revised those papers. Likewise, George Hillocks Jr (2010) showed an example of how to introduce basic elements of argumentation in his classroom using Toulmin model. To introduce forensic argument, he began with showing a picture of a crime scene and read a passage about it. The passage was about what the witness saw. Then he encouraged students to think whether the witness' word was reliable or believable or not by looking at evidences in the picture. Students were actively in discussion. When they found the evidence, Hillock encouraged them to think of the reasons why the evidence is important. After that, the students made a claim and wrote a few sentences to conclude their ideas. Four simple elements of a basic argument were found in the students' writing including evidence, rule (warrant), claim, and qualification. At the end of the activity, he reviewed the concepts of each element to students to ensure that they understand the model. He also mentioned that many teachers begin the lessons with teaching the writing of a thesis statement. However, in reality, to write a good argument, the lessons should begin with looking at the evidence in an argument and then craft a thesis statement or a claim from that.

From the review of the literature, it could be concluded that there are several ways to use Toulmin model for teaching writing. However, basically, the class usually begins with introducing students to the elements of Toulmin model first, and then providing some activities to construct students' knowledge about the model as well as develop their understanding. The activity might be identifying each element from a passage, brainstorm ideas about the definition of each element based on their understanding, or practice writing arguments based on the model. After that, to check students' comprehension, the teacher should ask them to write their own papers by using Toulmin model as a guideline. When they finish their draft, they can use the model as an evaluation tool to justify the qualification of their arguments.

2.2.2 Related research in argumentative writing instruction based on Toulmin model

Toulmin model of argumentation has been widely used among teachers and researchers mainly in terms of teaching and researching. It has been used as an argument analysis tool for many school subjects such as science, history, and English (Erduran, Simon, & Osborne, 2004). Qin and Karabacak (2010) reviewed relevant studies about using Toulmin in writing classroom, and the studies indicated that for argumentative writing, there are two aspects that the model is beneficial for: first, it is useful as a framework for analysis arguments, and second, it is useful as an instructional tool (e.g., Varghese & Abraham, 1998; Yeh 1998; Oi, 2005).

Yeh (1998) studied the effectiveness of two types of instruction-- the explicit instruction based on the Toulmin model combined with concept-mapping activities, and the concept-mapping activities only-- on argumentative writing ability of 7th grade students. The samples mostly did not come from English speaking family. The result showed that the explicit instruction based on the Toulmin model combined with concept-mapping activities was more significantly effective when compared to concept-mapping activities only. It helped students gain knowledge and strategies to form an effective argument, and apply the knowledge in new topics.

Varghese and Abraham (1998) used explicit instruction of the Toulmin model with thirty English-major sophomores in Singapore in L2 context. Students were

asked to read and critique three or four short arguments orally every week and they also were asked to write and revise argument using Toulmin model every two weeks. In order to find the difference between the pretest and posttest score, T-test was used to analyze the data. After 8 weeks of instruction, the result showed that students' writing competence is improved. They made concrete progress. They provided clear claims, more specific evidence, produced reliable warrant, and they were also aware both sides of views when writing arguments.

Oi (2005) used Toulmin in teaching 14 students from freshmen writing class. She stated that using Toulmin model in teaching writing is an example of explicit instruction which is clear for students to develop understanding about organization of argumentative writing. She found that Toulmin model can be useful not only in terms of teaching, but in the stage of revision as well.

Zimmerbaum (2014) used critical questioning strategy and the Toulmin model of argument in teaching argumentative writing in order to help nine eighth-grade English language arts students improve the skills of developing logical, reasoned arguments based on analysis of data. The instruction was held over a six week period. Students read a number of texts in a variety of genres and developed written arguments in response to their readings. Quantitative data was obtained from the writing pre- and posttest's scores, while qualitative data was obtained from a student attitudinal survey. The results of the study suggested that this approach to teaching argumentative writing can increase student proficiency in producing well-reasoned arguments as well as can be an effective strategy to improve argumentative writing's quality of students.

From the findings above, it can be concluded that Toulmin model of argumentation can help students improve their writing ability. However, Toulmin model is not required to be taught independently. To increase the effectiveness of the writing instruction, the model can be applied with other teaching approach. As Crowhurst (1991) mentioned, "The type of instruction which produced improvement in writing quality were presentation of the persuasive model together with practice either writing or reading persuasive pieces" (p.330). Recently, one teaching approach,

that allows teachers to utilize class time more effectively, has received a lot of media attention; it is known as Flipped learning (Johnson, 2013). Due to the advanced development of technology, there is an increase in using technology in education. Many teachers have started to integrate technology into classrooms in order to maximize teaching and learning effectiveness. Flipped learning not only allows the teachers to redesign their course, but also allows more time available for activities in class.

2.3 Flipped Learning Environment

Over the last few years, flipped learning has received a lot of attention (Barseghian, 2011; Bergmann & Sams, 2012; Tucker, 2012). The core concept of flipped learning is involved a shift of direct instruction, which used to be in class, to outside of classroom via digital technologies so that available class time can be used effectively and creatively (Wiginton, 2013). It means that not only the lecture part and homework are reversed, but they also are more time available in class which means that teachers are able to manage class time for interactive activities such as peer instruction or group problem solving. As a result, students can be actively involved and be more engaged in learning process. The concept of reversing lecture and homework is not a new phenomenon in educational field. It has been used for many years. Due to the availability of technology which makes accessing videos easier than ever, this teaching approach has been improved and received a lot of attentions (Kachka, 2012).

Flipped learning divided instructional methodology into two main sections: in class and out of class activities. Class time is mainly used for active-learning activities, while out of class time is used for delivering contents in a form of video clips and other materials. The videos could be from external sources or made by the teachers themselves, but the teachers need to consider videos carefully whether or not the videos are appropriate instructional tools for the goal of the course (Bergmann & Sams, 2012). To illustrate the activities in both sections more clearly, the following

table adapted from Fadell (2013). It shows examples of activities for flipped learning environment.

Table 1 Sample activities for flipped learning environment

	Out of class (Technology)	In-classroom activities (Active Learning)
Student participation	Mandatory, not optional. Use online quizzes to monitor participation of students.	Should connect to online activities. Students are required to attend– take attendance.
Types of activities	<p>Utilizes Course Management System for online delivery.</p> <p>Provide online lectured videos and other useful materials for the instruction.</p> <p>Online quizzes (to ensure students are watching), with due dates just before the relevant in-class activities.</p> <p>Homework can be submitted electronically</p> <p>Result of online quizzes and homework can be used to focus in-class activities toward concepts that require extra attention.</p>	<p>Students must DO SOMETHING, not listen and take notes:</p> <ul style="list-style-type: none"> • Small group practice/ problem solving • Students team discussion and reporting out • Team projects • Online exams taken in the classroom • Do homework as a team <p>Design specific processes to guide students through applied practice and experiential learning. Technology can also be used in the classroom.</p>

From the table 1, it could be seen that *out of class*, students have responsibilities to watch the lectured videos and finish online quizzes before coming to class. To do online quizzes is one popular method for teachers to check the students' participation and understanding. The result from the quiz can be discussed in class as a class activity. *In class*, students need to perform active learning activities. Active learning is instructional methods that can actively engage students in learning a higher-order thinking tasks such as analyzing, synthesizing, and evaluating information (Bishop & Verleger, 2013). It allows students to actively participate in the learning process as well as perform meaningful activities. It can increase engagement and overall course satisfaction of the students (Wiginton, 2013). Some examples of active learning activities are including problem solving, group discussion, team projects, brainstorming, and peer instruction.

The greatest benefit of flipped learning environment is not the videos. It is the face-to-face class time. The available classroom time from flipped learning allows every teacher to redesign and reevaluate learning activities (Bergman & Sams, 2012). In flipped learning environment, students are assigned to watch the lectured videos posted by teachers, or to read other materials that teacher provided out of class, and for class time, they spend it with performing student-centered activities and applying knowledge. Most teachers in flipped classrooms tend to use active learning strategies, peer instructions, and collaborative activities in class since these methods can help students increase their engagement, interaction with peers and teachers, increase their satisfaction, promote higher-order thinking, and these approaches also support a student-centered learning environment (Wiginton, 2013). There are many advantages of offloading direct instruction in this way. Cockrum (2014) suggested five main benefits of a flipped classroom.

- *A flipped classroom benefits all students with different proficiency:* Many teachers suggested that a flipped classroom allows them to have more time to pay attention to students individually, especially to students who are struggle. Teachers can offer them the support, feedback, or suggestions they needed. However, not only struggling students, but advanced students also benefit from this approach. Teachers

can challenge them to go beyond the grade-level standard by providing more challenging tasks.

- *A flipped classroom supports self-responsibility:* Students have more responsibilities for their own learning since flipping a class is student centered. They developed their responsibility by managing and organizing their schedule for watching the videos. The lectured videos can be watched anytime and anywhere. It is convenient and more interesting for students compared to the old style textbook (Schwakl, 2013). They can work on their own pace to understand the content. They can pause, rewind, fast-forward, or review the material as many time as they need.

- *A flipped classroom benefits busy and absent students:* Cockrum (2014) mentioned that in his flipped classroom, he was able to offer multiple assignments in advance. Some busy students prefer to control their amount of homework. Therefore, they can watch lectured videos ahead of classes which can help them to manage their schedule better. For students who are absent in class, they can catch up with the lessons and are not left behind.

- *A flipped classroom allows teachers to have more interactions and to develop better relationships with students:* Teachers can create better relationship with students by paying individual positive attention. As Cockrum stated, “All students want attention, whether they admit it or not” (p.16). In a flipped classroom, there is more time allotted for teachers to have more interaction time with every student. As a result, it increases interactions between teachers and students. Moreover, since students watch the lecture at home, parents can watch with them. As a result, flipped learning can promote a better relationship with their children as well as create greater transparency and communication with teachers (Wiginton, 2013).

- *A flipped classroom decreases negative behaviors affecting classroom management:* In ordinary classroom, there are always some students who interrupt class because they need more attention, some students who are bored, and even some students who do not understand the lessons. With flipping, students can get fully attention and they are able to expose to the content prior to class time. They can work on their own pace for watching videos and understanding the content. As a result, they

come to class better prepared and they are ready for engaging class activities. According to Green (2012), there was a 74% decrease in student negative behaviors in the classroom during the first two years in a flipped classroom at Clintondale High School.

2.3.1 Flipped learning and writing instruction

Cockrum (2014) mentioned that flipped learning works with writing instruction as it works in other content areas, because the core idea of flipped learning is to allow teachers to spend time developing students' high-order skills. The students can develop their critical thinking process, be better at solving problems as well as be more creative during class time. Moreover, they can communicate and collaborate more with their peers (Cockrum, 2014). He suggested three main reasons why flipped learning works in English classrooms.

- The first reason is a flipped classroom provides individualized instruction.

Many researches show that there are two factors that are crucial for writing instruction to be the best, which are personalization and content orientation (Graham & Perin, 2007). In a writing classroom, teachers can discuss students' writing one-on-one as well as ask and answer any questions that each student might have. Teachers can also read some papers and give feedback at that time, which can reduce the amount of papers that teachers have to read outside. Moreover, since there is more time allotted, teachers can focus more on giving quality feedback to students' writing.

- The second reason is a flipped classroom creates community. Mostly in a flipped classroom, students usually collaborate with each other. In a writing class, students are encouraged to brainstorm ideas, read each other's work as well as help their peer revise the writing pieces. Cockrum (2014) mentioned that some of his students expressed positive attitudes towards the peer-editing process. They thought that their peers' suggestions were very helpful, because they could find out specific areas which need to be corrected and they could revise their work before turning in the final draft.

- Lastly, a flipped classroom provides more choices in activities and assessment. Since a flipped classroom provides individualized instruction, it also offers

individualize assessments too. The assessment can be in various forms, because a writing process can be applied to almost everything (Cockrum, 2014). When teachers teach concept of writing, students have choices to show their understanding. For example, if they want to show they understand persuasive essay, instead of writing the essay, they can prove their understanding by mocking up some advertising, writing a magazine article, or even creating an announcement.

2.3.2 Related research in flipped learning

Although flipped learning has become popular teaching approach in recent years, the studies and literature related to flipped learning are still limited (Clark, 2013; Strayer, 2007; Wiginton, 2013). A review of available research revealed that most studies were conducted with high school students and subjects like chemistry, physics, and mathematics, but research related to language learning is scarce.

Johnson (2013) conducted a study about student perceptions of the flipped classroom. It aimed to investigate perceptions of the students towards the flipped classroom in four aspects including the role of social media, educational technology, mastery learning, and self-pacing. The survey with open-ended questions was used to collect the data. The participants in this study were 63 high school students from three different math classes. The results revealed three major findings. First, students felt that they did less homework when compared to the traditional classroom which contradicted the belief that in a flipped classroom, students did more work at home in order to free up time in the normal classroom. Second, students enjoyed learning in a Flipped Classroom environment. They interacted more with teachers and peers, and they also enjoyed the increase in classroom learning activities. Lastly, students benefited from watching video recorded lessons as they were able to watch the video anytime and they also could pause, rewind, fast-forward, and even review the video for their better understanding.

Strayer (2012) conducted a study about the effects of a flipped classroom on student's cooperation, innovation, and task orientation in a statistics class by compared a flipped classroom to a traditional classroom. In a flipped classroom, ALEKS (an interactive tutoring system) was used. Surveys, focus group discussions,

class observation, and interviews were used to collect the data. The finding showed that the students in the flipped classroom enjoyed the innovation and cooperation, but they felt that the flipped model was not structured as the traditional classroom. Although, they expressed less satisfaction with class's structure, a classroom with more innovation and collaboration is preferred when compared to a traditional classroom.

Bate and Galloway (2012) explored the effects of flipped learning on a physic class at University of Edinburgh. They assigned students to use course materials, readings, and web-based resources for lecture at home. In class, guided discussion and peer instruction are used. The result showed that the attendance of students remained constant, although it could be decreased due to the essential information provided outside. The result also suggested that there is a significant increase in student knowledge. However, Bate and Galloway did not compare with a traditional classroom. Therefore, it is possible that the students' knowledge has increased as much as any teaching method.

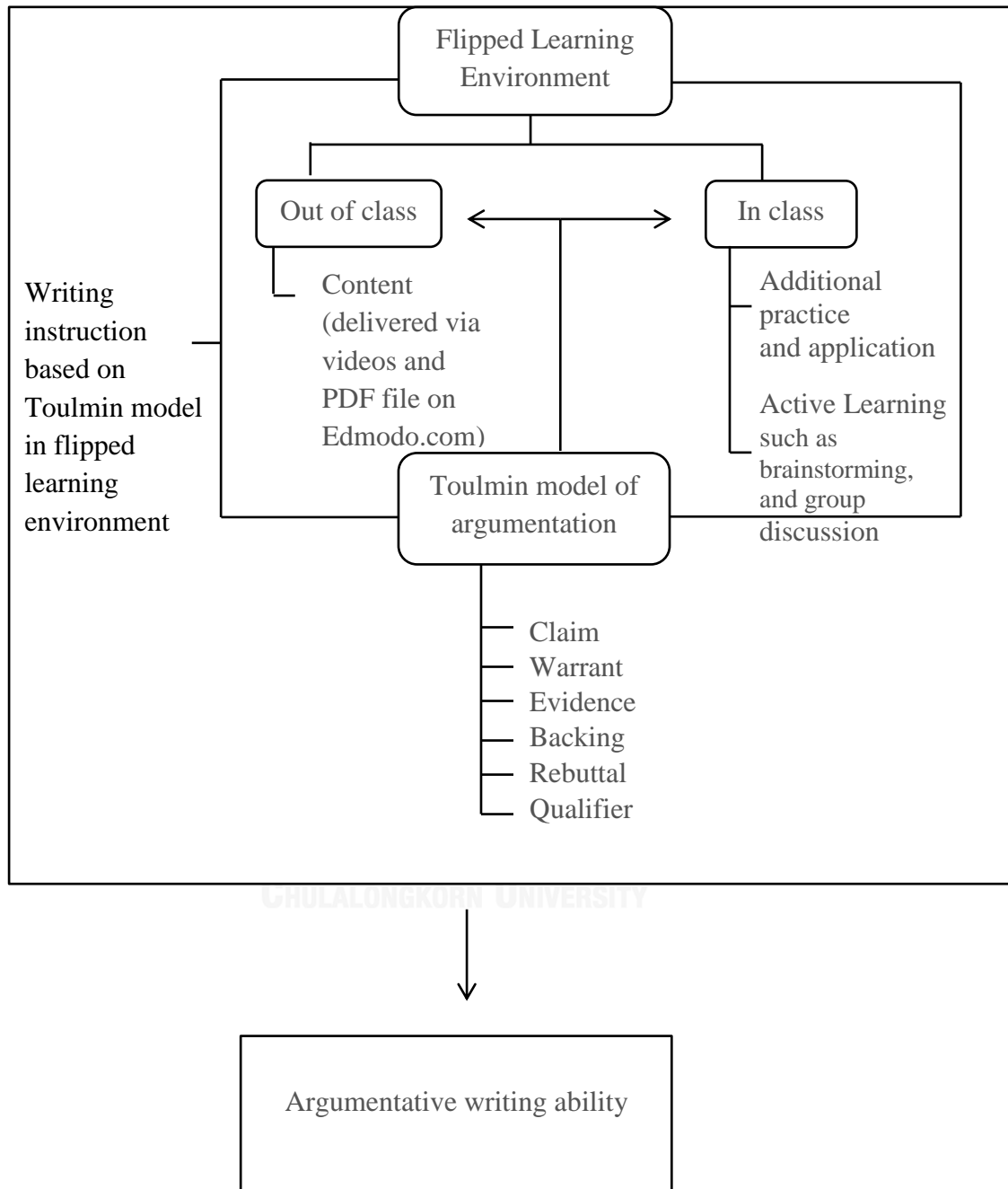
Mason, Shuman, and Cook (2013) investigated the effects of the flipped learning model in an advanced engineering course in college level. The study was conducted for two years. A traditional model was used in the course for the first year, while in the second year, Youtube and other online videos were used in place of lectures, and class time was spent with problem solving activities. The findings showed that in the flipped classroom, the teacher could cover more materials than the traditional classroom. The student performance, if not better, was at least as well as the traditional teaching method. For students' perception towards the flipped classroom, they perceived it negative at first, but it became much more positive when they adjusted to the new style of learning.

Overmyer (2014) conducted a quasi-experimental study to examine the effects of a flipped classroom on the achievement of students in Algebra course. The control groups were five sections of 166 students. They were taught by using the flipped classroom. The intervention groups were six sections of 135 students and they studied with the traditional method. In average, there were 35 students in each section. The

exam data from the sections were analyzed and compared using regression and ANOVA. The results showed that students who studied in the flipped classroom slightly had more score on the posttest than the students who received the traditional teaching method. However, the scores of two groups were not significantly different. Moreover, the flipped sections taught by the experienced instructors who had taught with inquiry-based and cooperative learning methods had significant higher score in final exams, while the untrained instructors had students who performed at least as well as students in traditional sections.

Schwankl (2013) examined the effects of flipped learning on students' learning and perceptions. The samples were freshmen, sophomores and one junior with age ranged from 14 to 17. The study was conducted in two sections of Integrated II mathematics classes. One section was taught by using traditional method, while the other section was a flipped classroom. Both section received the same pretest, posttest, and six quizzes. The scores were compared by using both paired-samples t tests and independent-samples t tests. The finding showed no significant differences, but the students who received flipped learning instructional method got higher scores in all tests. The study suggested that a flipped classroom benefits students when difficult topics are taught. Students had positive attitudes toward learning experience in flipped environment. They felt that they were more successful with a flipped learning instruction.

2.4 Conceptual Framework



CHAPTER III

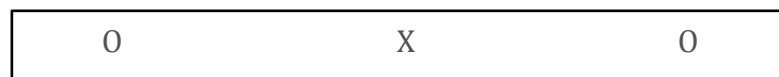
RESEARCH METHODOLOGY

The research design and research methodology implemented in the study are discussed in this chapter. This current study is a quasi-experimental research which aims to investigate the effects of writing instruction based on Toulmin model in flipped learning environment on undergraduate students' argumentative writing abilities. This study begins with the overview of research design, followed by population and sample, research procedure, research instruments, data collection, data analysis, and research timeline.

3.1 Research Design

The study employed a quasi-experimental design. Pretest and posttest were used to investigate the student's argumentative writing ability before and after receiving writing instruction based on Toulmin model in flipped learning environment. The scores from two tests were compared by using T-test in order to examine the effects of the instruction. The English writing tests was used to obtain the information to determine students' writing ability, while questionnaire and interview were used to explore student's attitudes towards the learning experience.

Figure 3 Research Design



- O meant the pretest and posttest of English writing ability
- X meant the treatment of writing instruction based on
Toulmin model in flipped learning environment

3.2 Population and Sample

The population of this study is English major undergraduate students from Mahasarakham University.

The sample was 17 English major seniors who enrolled in Expository and Argumentative writing course in the first semester of academic year 2015 at Mahasarakham University. On the first week, there were 15 students who came and did the pretest. The other 2 students enrolled in the course a week later. Therefore, they did not do the writing pretest, but they still participated for the rest of the course. The experiment was held for 10 weeks.

The sampling technique of this study was purposive sampling. The participants were chosen because 1) they were enrolled in Expository and Argumentative writing course in the first semester, academic year 2015, and 2) they have been already enrolled in at least two compulsory writing courses which means they exposed to English writing in some extent.

3.3 Research Context

The preset study was conducted at Mahasarkham University (MSU). It is a public university located in Maha Sarakham province with an approximation of 45,000 students. The university offers education from Bachelor degree to Doctoral degree in various fields. The university has two campuses, the “Old Campus” which is located in downtown Maha Sarakham, and the “New Campus” which is located at Khamriang Subdistrict, 10 kilometers far from the town.

In this experiment, the study was conducted in Expository and Argumentative writing course. The argumentative writing part was taught by the researcher. The instruction lasted 10 weeks. The students were required to do a pretest on the first week, and do the posttest on the last week, as well as the questionnaire and interview. The students attended the class once a week and each session lasted two hours. The class was conducted in a flipped learning environment.

3.4 Research Procedures

The study consisted of two phases: the development phase, and the implementation phase.

Figure 4 Research Procedure

The Development Phase
Step 1. Exploring and studying research related to argumentative writing instruction, Toulmin model, and flipped learning
Step 2. Constructing the research instrument and instructional instruments
Step 3. Validating all instruments
Step 4. Revising and editing the instruments
Step 5. Conducting the pilot study
The Implementation Phase
Step 1. Conducting pretest
Step 2. Implementing the instruction
Step 3. Conducting posttest, questionnaire and interview
Step 4. Analyzing the data by using T-test to compare scores of the two tests, and using means and content analysis to analyze the student's perception of the learning experience

Phase 1: The Development Phase

Step 1. Exploring and studying research related to argumentative writing instruction, Toulmin model, and flipped learning

For the first step, the researcher studied the related research, studies, journals, documents, theses, and dissertations about argumentative writing instruction, Toulmin model, flipped learning and other related issues.

Step 2. Constructing the research instrument and instructional plans

In this step, the research developed the research instruments as well as the instructional instruments. The research instruments consisted of the pretest and posttest, questionnaire, and semi-structure interview questions. The instructional plans

consisted of lesson plans, writing rubric, and lecture videos. The informal needs analysis was conducted with 20 English major students at Maharakham University to find out the themes of the lessons plans. Based on the data from needs analysis, the influence of social media and education were the most interested themes for the students.

Step 3. Validating all instruments

The Item Objective Congruence Index (IOC) was constructed. Experts with experiences of teaching English language evaluated the validity of the lesson plans' content, and the writing test and the rubrics. The questionnaire and interview questions were validated by back translation.

Step 4. Revising and editing the instruments

In this step, based on the experts' suggestions, the researcher revised and edited the research instruments and the instructional plans.

Step 5. Conducting the pilot study

After the revision, the research piloted them with the students that similar to the participants. The samples were asked to sign a consent form to participate in the pilot study. The purposes were to prepare the teacher and to find out any possible problems which might be necessary for the implementation stage. The results from the pilot study were used to edit and revise the instruments.

Phase 2: The Implementation Phase

Step 1. Conducting pretest

At the first week, the students were asked to sign a consent form to participate in the study and they were asked to do pretest to assess their English writing ability before the experiment. The time allocation for the test was 90 minutes. The pretest consisted of two writing prompts. The students were required to choose only one topic to write about. In order to ensure the reliability of the scores, there were two raters helping grad students' papers--the researcher and other rater. The result was used to compare with the posttest to explore the differences of their argumentative writing ability after the instruction.

Step 2. Implementing the instruction

The instruction was conducted from 2nd week to 9th week in the first semester of academic year 2015. The class met once a week, 2 hour for each period. The class was conducted in flipped learning environment. Therefore, the students were required to watch the lectured videos at their convenient time, but they must watch it and finish online assignments before coming to class. The class time was available for collaborative activities and writing practice.

Step 3. Conducting posttest, giving questionnaire and interviewing the sample

On the 10th week, the students were asked to do the posttest. The posttest was the same test as the pretest. The students were required to choose one topic from the writing prompts to write an argumentative essay in 90 minutes. The results from the pretest and posttest's scores were compared to see the differences in the students' writing ability. After the students finished the posttest, they were asked to do the questionnaire to explore their perceptions towards the flipped learning experience. The questionnaire was finished in 15 or 20 minutes. Then, six students were chosen based on their writing ability for the further interview. There are two interview questions altogether. The interview process took 5 or 10 minutes for each student. The interview was conducted in Thai so that the research could gain as much details from the students as possible. To explore the students' perception, the researcher recorded the interview and transcribed the response later.

Step 4. Analyzing the data by using T-test to compare scores of the two tests, and using means and content analysis to analyze the student's perception of the learning experience

The data obtained from pretest and posttest was analyzed by paired- samples T-test in order to compare the students' writing ability before and after the instruction. The data from the questionnaire was analyzed by using means of arithmetic mean, while the data obtained from the interview was analyzed by content analysis. The researcher read and transcribed the transcripts and looked for similar ideas that the students reflected.

3.5 Instructional plans

- *Lesson plans*

The treatment in this study was conducted in Expository and Argumentative writing course in the first semester of academic year 2015. The course lasted 10 weeks, 2 hours in each period. The first week was for pretest and the introduction to argumentative writing, while the last week was for posttest. There are two writing themes in the lesson plans. The outline of the 10-week lesson plan can be found in Appendix F.

The themes were obtained from informal needs analysis of 20 English major students. The result suggested that the influence of social media, and education were the two topics that students were most interested. Therefore, the two themes used in the lesson plans are the influence of social media, and education.

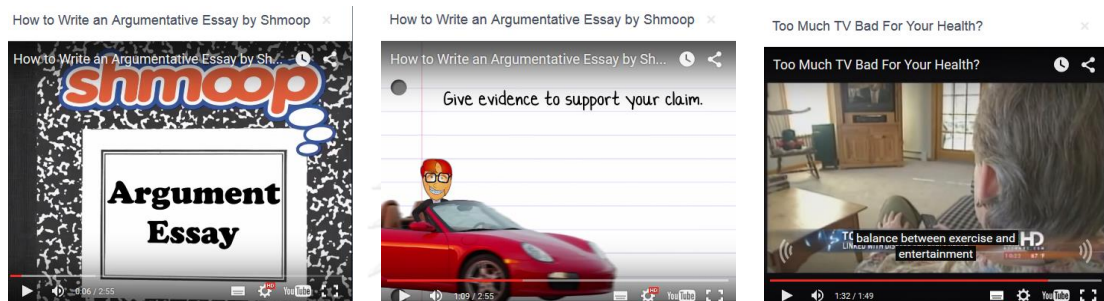
There are three unit plans for the whole 10 weeks. The first unit plan is related to the introduction to argumentative writing and it covers 3 weeks. The second unit plan is Toulmin model of argumentation and it covers 4 weeks, and the last unit plan is writing workshop and it covers the last 3 weeks. The students were required to write one argumentative essay for each theme. They wrote the first draft and revised it; then submitted the second draft as a final draft. In total, the students used Toulmin model to write 2 main argumentative essays. The sample unit plan is attached in Appendix G. The brief details for teaching procedures were explained as follows:

Step 1: Introduction to argumentative writing

In this step, *out of class*, students were required to watch lectured videos related to the introduction to argumentative writing, sample video of argument, and read the PDF related to the differences between argumentative essays and expository essays file. Then they were required to do an online assignment on Edmodo.com. The assignment was identifying argument in the sample video.

In class, they discussed about the videos, asked questions about argumentative writing, discussed the differences of argumentative and expository essays, and read sample argumentative paragraph. Then the students brainstormed ideas to write an argumentative paragraph on media topic (censorship) and after that, the students wrote the paragraph for the writing prompt “What do you think about censorship? Should the government censor television and other media?”.

Figure 5 Sample screenshots of materials used in flipped sessions for step 1



Assignment 1: What's the main idea in the video?

Assignment

Due: Aug 17, 2015

Assignment Overview All Submissions

Assigned to: Argumentative writing

After you watch the video "Too Much TV Bad For Your Health?", answer the following questions.

1. What is the speaker's claim? (What does the speaker want you to believe?)
2. What reasons, facts, quotations, evidence, or specific details does s/he give to support the claim?
3. Do you agree or disagree with the video? Why? (Write just a few sentences)

Step 2: Writing outline and introduction paragraph

Out of class, students were required to watch lectured videos and read the PDF related to writing introduction paragraph and thesis statement. The students were also required to watch a video about social media privacy experimental in order to contextualize them for writing argumentative introduction paragraph in class. Then they were required to do an online

assignment on Edmodo.com. The assignment was about asking them to identify argument in the video.

In class, they received feedback from their argumentative paragraph that they wrote last week. Then they discussed about the videos, asked questions that they had, brainstormed ideas to write an outline for their argumentative essay on a topic of social media. The writing prompt was “Are social networks threatening our security and putting our lives in danger?”. After that, the students wrote the introduction paragraph. The teacher walked around and provided suggestions and feedback; then for students who finished writing in class, they could revise their introduction paragraph in class.

Figure 6 Sample screenshots of materials used in flipped sessions for step 2

How to Write an Argumentative Essay - Part One

Expository and Argumentative Writing 1/2015

HOW TO WRITE AN INTRODUCTION FOR AN ARGUMENTATIVE ESSAY

In the first paragraph of an essay writer should set the context by reviewing the topic in a general way. Provide some background to the thesis and reveal the motive for arguing it. A thesis is clearly articulated general idea that expresses the main point you want to argue in your essay. Transitions are the mortar that holds the foundation of the essay together.

- Clear, concise, and define
- Sufficiency focused and narrow so that it can be fully discussed in your essay
- A position that is debatable, and dependent on the strength of evidence and logical development
- Interesting

The introduction is the broad beginning of the paper that answers three important questions:

What is this? Why am I reading it? What do you want me to do?

Assignment 2: How do you use social media? [Assignment Options](#)

Due: Aug 23, 2015

Assignment Overview [All Submissions](#)

Assigned to: Argumentative writing

Since we have talked about media a lot, now I want to move to social media and find out how do you use social media. So, answers the following questions. (the answers don't have to be long, write just a few sentences)

1. How many social media accounts do you have? (ex. Facebook, twitter, Instagram .. etc.) and how often do you use them?
2. How do you normally use social network?
3. Have you ever accepted friend requests from strangers? Why?
4. Have you ever got problems because of social media? How?

Then after you watch the video "Don't I know you? Social media privacy experiment tricks The Drum Live delegates", answers the following questions.

- 1.) What did the man do? What's the result?
- 2.) What do you think about this experiment? If it happened to you, would you believe him?

Step 3: Writing body paragraphs + Toulmin model of argumentation I

Out of class, students were required to watch lectured videos and read the PDF related to writing body paragraphs and Toulmin model of argumentation part I (the three essential elements: claim, evidence, and

warrant). Then they were required to do an online assignment on Edmodo.com. The assignment asked them to select one issue from the list and write their own claim, evidence, and warrant.

In class, they received feedback for their introduction paragraph. Then they discussed about the videos and their answers from the assignments. After that, the students practiced analyzing Toulmin elements (claim, evidence, and warrant) from sample advertisement. Then they wrote two body paragraphs of their essay based on Toulmin model. Meanwhile, the teacher walked around and provided suggestions and feedback.

Figure 7 Sample screenshots of materials used in flipped sessions for step 3



Expository and Argumentative Writing 1/2015

HOW TO WRITE BODY PARAGRAPHS FOR AN ARGUMENTATIVE ESSAY

Each paragraph should be limited to the discussion of one argument (one main idea). This will allow for clarity and direction throughout the essay. It is important to note that each paragraph in the body of the essay must have some logical connection to the thesis statement in the opening paragraph. The argumentative essay requires well-research, accurate, detailed, and current information to support the thesis statement and consider other points of view. Some paragraphs will directly support the thesis statement with evidence collected during research. It is also important to explain how and why the evidence supports the thesis. A strong body paragraph explains, proves, and/or supports your paper's argumentative claim or thesis statement. If you're not sure how to craft one, try using this handy guide!

1. Insert Your Claim: Although topic sentences may appear anywhere in a paragraph, in academic essays they often appear at the beginning. When creating a claim, ask yourself what's going on in your paragraph. Why you chosen to include the information you have?

Assignment 3: Write your own claim, evidence,

[Assignment Options](#) ▾

and warrant

Due: Aug 30, 2015

[Assignment Overview](#)

[All Submissions](#)

Assigned to: [Argumentative writing](#)

Choose one topic, write a claim with two pieces of evidence, and state warrants. They don't need to be complicated. The important thing is that your claim, supporting evidence, and warrants logically align.

General Topic | Narrower Topic

1. education | technology in classroom
2. dishonesty | cheating in exam
3. food | clean eating
4. television | reality shows

Step 4: Toulmin model of argumentation 2

Out of class, students were required to watch lectured videos and read the PDF related to writing body and counterargument paragraphs and Toulmin model of argumentation part II (the three optional elements: backing, qualifier, and rebuttal). Then they were required to do an online assignment on Edmodo.com. The assignment asked them to write a counterargument (rebuttal) for the provided claims.

In class, they received feedback for their body paragraphs and revised in class. Then they discussed about the videos and their answers from the assignments. After that, the students, in groups, practiced writing rebuttals on worksheet provided by the teacher and shared the answers. Then they wrote their rebuttal (counterargument) paragraphs of their essay. The teacher walked around and provided suggestions and feedback.

Figure 8 Sample screenshots of materials used in flipped sessions for step 4

The figure shows two screenshots from an Edmodo assignment. The top screenshot is a video titled "Three optional elements of Toulmin model" featuring a woman pointing to a whiteboard with the words "BACKING", "QUALIFIER", and "REBUTTAL" written on it. The bottom screenshot is the assignment page for "Assignment 4: Practice writing a counterargument (rebuttal)", due on Sep 6, 2015. It includes a table with "Assignment Overview" and "All Submissions" tabs, and a list of three claims for which students must write rebuttals.

Expository and Argumentative Writing 1/2015

Here is some examples of a **Toulmin Argument**:

Claim: People should probably own a gun.
Evidence: Studies show that people who own a gun are less likely to be mugged.
Warrant: People want to be safe.
Backing: May not be necessary. In this case, it is common sense that people want to be safe.
Rebuttal: Not everyone should own a gun. Children and those with mental disorders/problems should not own a gun.
Qualifier: The word "probably" in the claim.

Claim: All states should legalize marijuana for medical purposes.
Evidence: Marijuana helps alleviate symptoms and complications from medical conditions and ailments.
Warrant: There is scientific evidence that the brain responds to marijuana in a beneficial way.

Assignment 4: Practice writing a counterargument (rebuttal) [Assignment Options](#)

Due: Sep 6, 2015

Assignment Overview	All Submissions
Assigned to: ■ Argumentative writing	

Write a rebuttal for these following claims
(write just a counterargument part, don't have to a refutation):

1. Teenagers should be given more homework so they stay out of trouble.
2. Students should be allowed to eat and drink anytime and anywhere during the school day because students have different needs for eating times.
3. The school day should be shortened because more time in school does not increase the quality of learning.

For example,

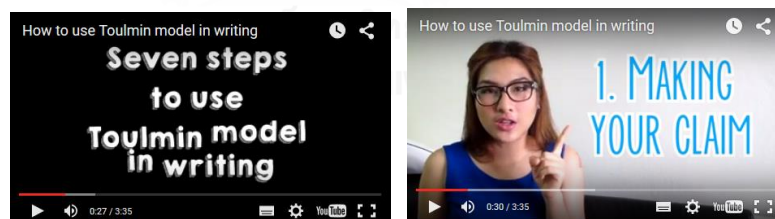
Claim: Students shouldn't be required to go to school because then there will be kids there who don't want to be

Step 5: Writing conclusion

Out of class, students were required to watch lectured videos related to the steps of using Toulmin model in writing and read the PDF related to writing conclusion. Then they were required to do an online assignment on Edmodo.com. The assignment asked them to choose a topic for their second argumentative essay under the theme of education. They needed to write a topic, a thesis statement, and a very brief outline of essay based on Toulmin model.

In class, they received feedback for their rebuttal paragraphs and revised in class. Then they discussed about the videos (the steps of using Toulmin model). After that, the students wrote conclusion paragraphs of their essay. The teacher walked around and provided suggestions and feedback. The students revised their conclusion in class. After they finished revising conclusion paragraph, they shared their second argumentative topic with their peers and discussed the outline based on Toulmin model. The teacher walked around and provided suggestions.

Figure 9 Sample screenshots of materials used in flipped sessions for step 5



CONCLUDING PARAGRAPHS

Your concluding paragraph should give your readers a sense of closure or completion. Very often, your concluding paragraph will develop naturally as you finish writing your body paragraphs.

- **AVOID restating the thesis statement from the introductory paragraph in exactly the same words**
- **AVOID listing the main points of each of the body paragraph (try summarize)**
- **AVOID introducing an entirely new topic.**

2

Once you have written your concluding paragraph, reread your thesis statement. Has your paper strayed from the original thesis? Do you need to rewrite the thesis statement, the concluding paragraph, or both? A common freshman writing error is letting the paper develop naturally to its conclusion, even if it strays from the thesis and then submitting the paper without making sure that the thesis statement and the conclusion

Step 6: Writing workshop

Out of class, students could watch lectured videos and read the PDF related about argumentative writing and Toulmin model of argumentation as a preparation for writing their second argumentative writing. They could watch and read the materials as many times as they wanted.

In class, they received feedback for their first argumentative essay. Then they wrote an outline for their second argumentative essay (Education theme). After that they were required to write their first draft of the second essay. The teacher walked around and provided suggestions. Then, the students revised their first draft and submitted the final draft online. They were required to underline their thesis statement and their claim in each body paragraph in order to ensure that what they had written in body paragraphs was related to their thesis.

Figure 10 Sample screenshots of materials used in flipped sessions for step 6

The screenshot shows a learning management system interface for an assignment submission. At the top, it says "Second essay submission: Submit your final" with a blue "Assignment Options" dropdown arrow to the right. Below this, it says "draft of the second essay here" and "Due: Oct 6, 2015". There is a navigation bar with "Assignment Overview" and "All Submissions" tabs. Below the navigation bar, it says "Assigned to: ■ Argumentative writing". A message box contains the text: "Please submit your second argumentative essay here. Don't forget to underline your thesis statement and your claims in each paragraph." followed by a smiley face icon and "Due date: Tue 6th, Oct". Below the message box, there is a preview of the essay text. The preview text is: "Joining a Club in University", "Most of the high school students want to enroll in a university because it provides not only general knowledge, but also specific knowledge. To enroll in a university, some students have to live far away from home. They have to set their new routines and adjust to new environment. After they are used to living in university, they will find that there are many things to do besides study. Joining a club is a choice for them. College students should join a club in order to fulfill university's life.", and "Freshmen take time to accustom to a new environment. After that, some of them join a club. Joining a club make them meet new friends from different majors and faculties. They will enjoy living in university because there are a lot of fun activities to do. Holding activities inside or".

To conclude, the step 1-2 covered 3 weeks. The step 3-5 covered 4 weeks, and the step 5-6 covered the last 3 weeks. *For flipped sessions*, the teacher posted video clips and other materials; then assigned work related to the online videos. The students were required to watch lecture videos and do assignments on Edmodo.com. The materials used in flipped sessions were mainly lectured videos and online assignments created by the researcher. The researcher recorded the videos and edited. In order to avoid boredom, each video was decorated with colorful texts and sound effects, and it was no longer than 10 minutes. *In class*, practice writing was the main activity. However, not only individual writing, but the researcher also provided various active learning activities such as group discussion, and brainstorming. More examples of materials were provided in Appendix G and H.

Validating the instructional instrument

One unit plan was validated by three experts to check the appropriateness on the lessons before the experiment. The experts were asked to evaluate the lesson plans using the evaluation form which included five main areas: the appropriateness of the lesson plans regarding to their objectives, teaching procedure, activity, materials, and time. The experts were asked to give their opinion by marking the item is appropriate (+1), not sure (0), and the item is not appropriate (-1). Each evaluation form provided space for additional comments and suggestions as well.

According to the IOC result, it was found that the IOC index of the unit plan was 0.59. A content validity is higher than 0.5 which means it is valid and acceptable (Pinyoanunpong, 2003). The expert's IOC result was shown in the table 3.1.

Table 2 The analysis of the index of item objective congruence

Statement	Analysis of IOC from experts			IOC Score	Results
	1	2	3		
1. Topic of the unit and the lesson					
1.1 Topic of the lesson is appropriate and clear.	+1	0	+1	0.666	valid

2. Objectives					
2.1 Objectives are clear and concise.	+1	0	+1	0.666	valid
2.2 Objectives are relevant and consistent with the content of the lessons.	+1	0	+1	0.666	valid
3. Stages of Teaching					
3.1 Stages of teaching are appropriately sequenced.	+1	0	0	0.333	invalid
3.2 Stages of teaching are clear and effective.	0	0	0	0	invalid
4. Activities					
4.1 Activities are practical.	+1	+1	+1	1	valid
4.2 Activities are relevant to the lesson objectives.	+1	+1	+1	1	valid
5. Materials					
5.1 Teaching materials are appropriate for the lessons.	+1	+1	0	0.666	valid
5.2 Teaching materials are interesting, motivating, and understandable.	+1	+1	0	0.666	valid
6. Time allocation					
6.1 Time allocation is appropriate.	+1	+1	0	0.666	valid
Average score				0.59	valid

Moreover, the experts provided additional comments and suggestions for improving the unit plan as follows:

- Expert A suggested that the unit plan should be more detailed. For example, if the videos used in each week are different, they should be explained clearly in order to avoid confusion. Moreover, the activities used to check students' comprehension in class should be more varied.

- Expert B commented that the activities in the unit plan should be more varied and engaging.
- Expert C recommended that the unit plan should be more detailed in terms of the materials used. In addition, the objectives of the unit plan should be clearer too.

After validation, the unit plan was revised and adjusted based on the expert's suggestions before employing in the pilot and main study. The teaching procedures were rearranged, added more details, and added more various types of in class activities as follows.

Before revision: *“a teacher will post a video and students will watch the lectured video before coming to class. ”*

After revision: *“A teacher post flipped learning materials including two lectured videos “The introduction of Toulmin model” and “The essential three elements of the model (C, E, W)”, as well as the PDF file related to writing a body paragraph on the Edmodo group and students are required to watch the videos and read the file before coming to class.*

Before revision: *“the teacher will spend time around 30 minutes to provide feedback to students who finish writing”*

After revision: *“the teacher will spend time around 30 minutes to provide individual feedback to students who finish writing”*

Before revision: *“Online assignment”*

After revision: *“Online assignment: Identify claim, evidence, and warrant from the video “Don’t I know you?””*

Before revision: *“An online assignment is used to check students’ attendance and comprehension.”*

After revision: “An online assignment and discussion are used to check students’ attendance and comprehension about the content in the videos.”

Then, the instrument was employed with a pilot group of 5 students in the same context of the sample. They were from the same year, the same major, and the same university of the sample. The result from the pilot group was used to revised, edited, and adjusted the instrument.

3.6 Research instrument

3.6.1 Writing test and Rubrics

The English writing prompts were developed by the researcher (see Appendix C). The purpose is to assess the student’s argumentative writing ability before and after the instruction. Both pretest and posttest were the same test (parallel test). Two topics were chosen from the result of informal needs analysis. They were the influence of social media and education respectively. The test was validated by three experts by using IOC index. On the writing test, there are two writing prompts and the participants are asked to select one topic and write an argumentative essay for approximately 300 words within 90 minutes.

The analytical scoring rubric was used to assess students’ writing ability (see Appendix D). The rubric was adapted from Argumentative writing rubric based on Toulmin model (Krieger-James, 2012). The rubric is in analytical form which assesses two main parts of the argumentative essay: arguments and convention. The assessment of argument part is including the five elements of Toulmin model. Backing is not assessed in the rubric since it is an optional part and if the warrant is strong enough, it does not require backing. The convention part aimed to assess students’ grammatical skills such as sentence structures, spelling, vocabulary usage, and punctuation. The total point is 31. The argument score is 26 and convention score is 5. To ensure the reliability of grading, there was other expert to rate the students’

writing. This expert has been an English lecturer for more than ten years. The rater was trained to rate the writing pieces by the researcher.

3.6.2 *Questionnaire*

The questionnaire was designed to explore students' perception towards the writing instruction based on Toulmin model in a flipped classroom mainly in terms of usefulness, engagement, and the preference in learning in a flipped classroom (see Appendix A). The questions were adapted from Johnson's (2013) study. The questionnaire was divided into two parts: general information, and students' perception. In the first part, there were six items which aimed to elicit background information of the participants about their gender, age, major, English writing experience and proficiency. The second part consisted of 20 statements. It was a four-point Likert Scale. The scales were including 1) strongly disagree, 2) disagree, 3) agree, and 4) strongly agree. The four-point Likert scale questionnaire has its benefit in terms of an avoidance of a situation that the students may choose a 'Neutral' choice when they want to avoid telling the truth. The questionnaire was translated into Thai and back translated into English by other English instructor. Thai version of the questionnaire was distributed to the students after finished the course.

3.6.3 *Semi-structure interview questions*

Semi-structure interview questions were adapted from Johnson's (2013) study in order to gain in-depth information about students' perception towards learning experience in a flipped classroom (see Appendix B). The focus of the interview was to find students' perspective of learning writing in a flipped classroom, and Toulmin model of argumentation. The semi-structured interview was employed in order to provide the interviewees more opportunities to express their opinions freely and openly. Six students were selected from the sample group based on their writing ability (good, medium, and fair). These six students represented 30% of the sample group which was accepted statistically as an appropriate sample. The interview was conducted in Thai in order that the researcher would be able to receive as many details as

possible, and the interviewees were able to elaborate and clearly state what they thought about the instruction. The interview questions were translated into Thai and back translated into English by other English instructor.

Validating the research instrument

The questionnaire and interview questions were validated by back translation from the other English instructor. The writing test and rubric were validated by three experts to suit the purpose of the study. The IOC index was used to evaluate the research instruments. The experts were asked to give their opinion by marking the item is appropriate (+1), not sure (0), and the item is not appropriate (-1), and they were asked to provide additional comments and suggestions as well. The result of IOC index was 0.666 meaning the instruments were acceptable. The analysis of the IOC index was shown in table 3.2.

Table 3 The analysis of the index of item objective congruence

Items	Analysis of IOC from experts			IOC Score	Results
	1	2	3		
1. The test is consistent with its objectives.	+1	+1	+1	1	valid
2. The test reflects content validity.	+1	+1	+1	1	valid
3. The result of the test can reflect students' writing achievement according to the test objectives.	+1	+1	0	0.666	valid
4. The writing scoring criteria are clear and appropriate for the test and writing achievement.	+1	0	+1	0.666	valid
5. The length of the test is appropriate.	0	+1	+1	0.666	valid
6. The language used in the test is precise and clear.	0	+1	+1	0.666	valid
7. The time given is appropriate.	+1	-1	0	0	invalid
Average score				0.666	valid

In addition, the experts suggested revising both instruments as follows:

- Expert A suggested that for the writing rubric, the convention score part should be more detailed and more exhaustive. The word ‘errors’ should be stated clearly whether the criteria refer to which grammatical problems. The grammatical mistakes should be divided into two main types: major mistakes and minor mistakes. The types of mistakes should be elaborated too. Moreover, the instruction of the writing test should be more detailed. It should indicate clearly how many arguments/reasons are expected to be discussed in the essay.
- Expert B recommended that the length of the argumentative essay should be extended to 300 words, and the topics are quite old-fashioned. For the rubric, the transition criterion should be briefly described.
- Expert C commented that the writing test’s instruction should be stated clearer in terms of the number of reasons that students needed to write. In addition, the writing prompt does not require students to make a claim; therefore, the writing prompt should be adjusted otherwise the rubric should be revised.

After validation, the research instruments were revised and adjusted according to the expert’s comments before employing in the pilot and main study. The length of the essay was extended and the time for writing was extended to be more appropriate. It was changed as follows:

Before revision: “write an argumentative essay approximately 150-200 words. ***Time allocation:*** 90 minutes”

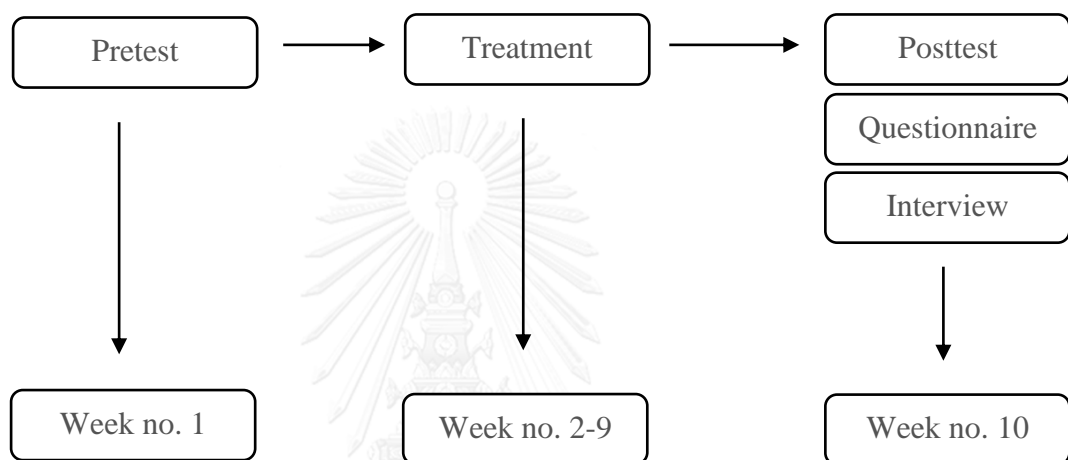
After revision: “write an argumentative essay approximately 300 words. ***Time allocation:*** 90 minutes”

3.7 Data Collection

The data collection Students’ argumentative writing ability was investigated by using the pre-English writing test on the first week. The writing rubric was used to evaluate and analyze their argumentative writing ability. Then, students received the writing instruction based on Toulmin model in flipped learning environment for eight

weeks (week 2-9). The students were asked to perform writing activities related to the lessons. In week 10, students completed the posttest, and the questionnaire about their learning experiences. Six students were interviewed. The quantitative data was obtained from the both parts: test scores, and questionnaire, while the qualitative data was obtained from the semi-structure interview. The data collection process was completed within 10 weeks.

Figure 11 Data collection process



3.8 Data Analysis

Research Question 1: To what extent does writing instruction based on Toulmin model in flipped learning environment affect argumentative writing ability of undergraduate students?

The research instrument used to answer the research question 1 was the writing test which was provided before and after the treatment. The writing rubric was used to evaluate the writing piece. The research and one inter-rater scored the students' paper. The scores obtained from the writing rubric were analyzed by using T-test (Paired sample test) to compare the differences in the students' argumentative writing ability before and after the implementation of Toulmin model in teaching argumentative writing in flipped environment.

Research Question 2: What are the perceptions of the students towards writing instruction based on Toulmin model in flipped learning environment?

The research instrument used to answer the research question 2 was the questionnaire and semi-structure interview questions. The quantitative data from the questionnaire was analyzed by using means, while the qualitative data from semi-structure interview was analyzed by using content analysis.

3.9 Research Timeline

This current research was conducted through scientific research procedures. The table 2 illustrates how this study is conducted. Both research procedures and timetable were presented.

Table 4 Research Timeline

Procedures	Time Period						
	Academic year 2014-2015						
	August - September	October - November	December - March	March - July	August - October	October - November	November - December
Conducting the literature review and specifying the scope of the study	x	x					
Writing the research proposal		x	x				
Constructing and validating instruments			x	x	x		
Pilot study/ Conducting the experiment/ Collecting research data					x	x	x
Analyzing research data					x	x	x

Writing a conclusion and establishing future recommendations and suggestions					x	x	x
Writing and publishing the thesis						x	x



CHAPTER IV

FINDINGS

The chapter four reports the findings of the current study concerning the effects of writing instruction based on Toulmin model in flipped learning environment, based on two research questions and hypotheses. The first question was to examine the effects of writing instruction based on Toulmin model in flipped learning environment on argumentative writing ability of undergraduate students. This question reported quantitative results obtained from the pretest and posttest mean scores. The second research question was to explore the students' perceptions towards writing instruction based on Toulmin model in flipped learning environment. The findings from the questionnaire are presented in form of descriptive statistics. The semi-structure interview was analyzed by using content analysis. The results were explained as follows:

Research Question 1: To what extent does writing instruction based on Toulmin model in flipped learning environment affect argumentative writing ability of undergraduate students?

Hypothesis 1: The writing instruction based on Toulmin model in flipped learning environment enhances the students' argumentative writing ability.

The research question aimed to identify the difference of the students' argumentative writing ability between before and after the implementation of the writing instruction. Paired sample t-test was used to analyze the mean scores of the students and to investigating whether the pretest mean scores differed from the posttest mean scores at the significant level of 0.05. The research instrument used to answer the research question one was the writing test (see Appendix C). The analytical scoring rubric was used to assess students' argumentative writing ability (see Appendix D) in two main parts: arguments and convention. The total point was 31. The argument score was 26 and convention score was 5.

To ensure the reliability of the scoring process, the students' pretest and posttest were graded by two raters and then the scoring results were analyzed. The

other was trained by the researcher. The result showed the correlation between the researcher and another rater was 0.94 on the pretest and 0.98 on the posttest which implied that grading students' English argumentative writing ability from both raters was consistent. The pretest and posttest scores of the students, standard deviation, t-values, and statistical significance are shown in Table 4.1

Table 4.1: Means, standard deviations, mean difference, t-values, degree of freedom and statistical significance of the argumentative writing pretest and posttest

The writing test (Total score = 31 points)	Min	Max	Mean Scores (\bar{x})	S.D.	t	df	Sig.
Pretest	14	26	19.80	4.161	7.493	14	.000
Posttest	22	29	25.53	2.232			

* $p < .05$, $n = 15$

As a whole, it was found that there was an improvement of the students' argumentative writing ability after the implementation of the writing instruction. As shown in the table 4.1, there was higher mean score on the students' posttest compared to their pretest mean score. The finding of the paired sample t-test shows that there was a statistically significant difference of the mean scores of the pretest and posttest ($t = 7.493$, $p = .000$), which indicated that the scores that the students gained in the post-test was improved at a significant level. According to the result in the table 4.1, the difference of mean scores from the pretest and posttest was -5.73. The mean score of the pretest was 19.80. The lowest score was 14 and the highest score was 26. On the other hand, the mean score of the posttest was 25.53. The lowest score was 22 and the highest score was 29. The result pointed out that there was a significant difference between the pretest and posttest mean scores of the students at the significant level of .05 ($p < .05$). From these findings, it can be concluded that the students had a greater achievement in argumentative writing ability. Therefore, the first hypothesis which claimed that the writing instruction based on Toulmin model in

flipped learning environment enhanced the students' argumentative writing ability was accepted.

The rubric adapted from Argumentative writing rubric based on Toulmin model (Krieger-James, 2012) was used to assess the argumentative writing ability in two main aspects: arguments, and convention. The assessment of argument part was including five elements of Toulmin model (claim, evidence, warrant, qualifier, and rebuttal). Backing was not assessed. The assessment of convention part was mainly about grammar and spelling. The mean scores, the minimum and maximum values, standard deviations, mean difference, degree of freedom, and paired-sample t-test of the pretest and posttest in each aspect (argument, and convention) were presented in the tables 4.2, and 4.3 below.

Table 4.2: *Descriptive statistics of students' argumentative writing ability in terms of arguments*

Argument (Total score = 26 points)	Min	Max	Mean Scores (\bar{x})	S.D.	t	df	Sig.
Pretest	12	21	16.20	3.052	7.525	14	.000
Posttest	19	25	21.33	2.059			

* $p < .05$, $n = 15$

According to the table 4.2, it was found that there was a statistically significant difference of the mean scores between the pretest and posttest in the argument part. The mean score of the pretest was 16.20 (S.D. = 3.052) and the mean score of the posttest was 21.33 (S.D. = 2.059). The mean difference between the pre- and posttest was -5.13 and it was significantly higher than the level of 0.05 ($p < .05$). Hence, the statistics showed that students gained significantly higher scores of argumentative writing test in terms of formulating arguments after learning through writing instruction based on Toulmin model in flipped learning environment.

Table 4.3: *Descriptive statistics of students' argumentative writing ability in terms of convention*

Convention (Total score = 5 points)	Min	Max	Mean Scores (\bar{x})	S.D.	t	df	Sig.
Pretest	1	5	3.53	1.407	3.055	14	.009
Posttest	1	5	4.33	1.234			

* $p < .05$, $n = 15$

According to the table 4.3, it was found that there was a statistically significant difference of the mean scores between the pretest and posttest in the argument part. The mean score of the pretest was 3.53 (S.D. = 1.407) and the mean score of the posttest was 4.33 (S.D. = 1.234). The mean difference between the pre- and posttest was -0.80 and it was significantly higher than the level of 0.05 ($p < .05$). Therefore, the statistics showed that students gained significantly higher scores of argumentative writing test in terms of convention after learning through writing instruction based on Toulmin model in flipped learning environment.

To conclude, according from the result of the present study, the students showed a great improvement of their argumentative writing skills, especially in argument part. The mean score from the pretest was significantly higher than the pretest which indicated that writing instruction based on Toulmin model in flipped learning environment could enhance students' argumentative writing ability at the significant level of 0.05. Therefore, the first hypothesis stating that the writing instruction based on Toulmin model in flipped learning environment can enhance the students' argumentative writing ability was accepted.

Research Question 2: What are the perceptions of the students towards writing instruction based on Toulmin model in flipped learning environment?

Hypothesis 2: The students have positive perception towards writing instruction based on Toulmin model in Flipped learning environment.

The result from this part were used to find out whether the students had positive or negative perceptions towards writing instruction based on Toulmin model in flipped learning environment. The research instrument used to answer research question 2 was the questionnaire and semi-structure interview questions. The quantitative data from the questionnaire was analyzed by using means, and the qualitative data from semi-structure interview was analyzed by using content analysis. The data from the questionnaire were collected from 17 fourth-year students from English major, Mahasarakham University. Six of them were chosen to be interviewed based on their different levels of argumentative writing ability. The results obtained from the questionnaires and the interviews were described below.

1. The result from the questionnaire

The questionnaire included two parts: general information, and students' perception. To explore the students' perceptions towards writing instruction based on Toulmin model in flipped learning environment, there were 20 statements in the second part of the questionnaires. The result from the questionnaire was reported as reported by the mean scores (\bar{x}) and standard deviation (S.D.) in table 4.2.

Table 4.2: \bar{x} and S.D. of students' perceptions towards writing instruction based on Toulmin model in flipped learning environment

Questionnaire Items	\bar{x}	S.D.
1. The Flipped classroom is more engaging than traditional classroom instruction.	3.36	0.492
2. The Flipped classroom gives me greater opportunities to communicate with other students in class.	3.59	0.507

3. I have more interactions with the instructor.	3.59	0.507
4. I like watching the lessons on video.	3.24	0.664
5. I would rather watch a traditional teacher led lessons than a lesson video.	2.59	0.870
6. I can access to the online materials without difficulties.	2.59	0.870
7. Availability and accessibility of the learning materials help me improve my learning	3.41	0.570
8. I write more in flipped learning environment when compared to a traditional classroom.	3.59	0.570
9. I spend less time working on traditional writing homework.	3.06	0.428
10. I am more motivated to learn English in the Flipped Classroom.	3.24	0.562
11. Toulmin model helps me to construct effective arguments.	3.30	0.469
12. I write an argumentative essay better when using Toulmin model.	3.30	0.469
13. I prefer to use Toulmin model when writing argumentative essays.	3.18	0.392
14. Toulmin model is easy to be understood.	3.24	0.437
15. I feel Toulmin model is easy to be applied in writing.	3.06	0.555
16. Writing instruction based on Toulmin model in a flipped classroom helps me improve my writing ability.	3.24	0.437
17. I prefer to learn writing in flipped learning environment.	3.24	0.437
18. I can get feedback from my peers and teachers in flipped environment more than a traditional classroom.	3.29	0.469
19. I would like to study in a flipped classroom in other	3.00	0.612

subjects too.		
20. I would like to introduce my friend to a flipped classroom.	3.24	0.562
Grand Mean Score	3.22	0.544

Notes: 1) Agreement was categorized using Likert 4-point scale:

4 = Strongly Agree, 3 = Agree,
2 = Disagree, 1 = Strongly Disagree

2) Means of opinion scale ≥ 2.5 from the 4-point scale on the questionnaire refers to the “positive perception”

According to the table 4.1, the formula of Best and Kahn (1993) was used to interpret the Likert 4-point scale questionnaire. The range of 0.75 between each interval was used to interpret the mean score. 1.00-1.75 = strongly disagree, 1.76- 2.5 = disagree, 2.56- 3.25 = agree, 3.25-4.00 = strongly agree. the mean scores of all items were higher than 2.5 and the grand mean scores of 3.22 indicated that the students had positive perception towards the writing instruction based on Toulmin model in flipped learning environment.

Ranking from the most to the least, students expressed their opinions towards the questionnaire items as follows: 8) I write more in flipped learning environment when compared to a traditional classroom ($\bar{x} = 3.59$), 3) I have more interactions with the instructor ($\bar{x} = 3.59$), 2) The Flipped classroom gives me greater opportunities to communicate with other students in class ($\bar{x} = 3.59$), 7) Availability and accessibility of the learning materials help me improve my learning ($\bar{x} = 3.41$), 1) The Flipped classroom is more engaging than traditional classroom instruction ($\bar{x} = 3.36$), 12) I write an argumentative essay better when using Toulmin model ($\bar{x} = 3.3$), 11) Toulmin model helps me to construct effective arguments ($\bar{x} = 3.3$), 18) I can get feedback from my peers and teachers in flipped environment more than a traditional classroom ($\bar{x} = 3.29$), 4) I like watching the lessons on video ($\bar{x} = 3.24$), 20) I would like to introduce my friend to a flipped classroom ($\bar{x} = 3.24$), 17) I prefer to learn

writing in flipped learning environment ($\bar{x} = 3.24$), 16) Writing instruction based on Toulmin model in a flipped classroom helps me improve my writing ability ($\bar{x} = 3.24$), 14) Toulmin model is easy to be understood ($\bar{x} = 3.24$), 10) I am more motivated to learn English in the Flipped Classroom ($\bar{x} = 3.24$), 13) I prefer to use Toulmin model when writing argumentative essays ($\bar{x} = 3.18$), 9) spend less time working on traditional writing homework ($\bar{x} = 3.06$), 15) I feel Toulmin model is easy to be applied in writing ($\bar{x} = 3.06$), 19) I would like to study in a flipped classroom in other subjects too ($\bar{x} = 3$), 5) I would rather watch a traditional teacher led lessons than a lesson video ($\bar{x} = 2.59$), and 6) I can access to the online materials without difficulties ($\bar{x} = 2.59$).

From the result of the questionnaire, it can be said that the students had positive perception towards the writing instruction based on Toulmin model in flipped learning environment. They thought that they wrote, and received feedback more when they studied in a flipped classroom, compared to a traditional classroom. They also had more interactions with peers and the teacher. In addition, they felt that learning in flipped environment is engaging and they would like to try with other subjects. In terms of Toulmin model, the students thought that the model helped them to write effective arguments and it was easy to be understood. They preferred to use Toulmin model when writing argumentative essay. Moreover, they preferred to learn writing class in flipped learning environment and they also would like to suggest a flipped classroom to other people.

2. The result from the semi-structure interview

Apart from the questionnaire, the semi-structure interview was conducted to gain in-depth information to support the data gathered from the questionnaire and to give the interviewees more opportunities to express their opinions towards the writing instruction freely and openly. Six students were interviewed. They were chosen based on their argumentative writing ability—good, medium, and fair. There were two interview questions and the interview took around 3-5 minutes for each interviewee. The interviews were done in Thai in order to elicit as much information as possible

from the students. The finding from the interview reported the students' perception towards writing instruction based on Toulmin model and studying in flipped learning environment.

The first interview question: Do you think Toulmin model help you improve your argumentative writing ability? If yes, how?

The first interview question aimed to find out the students' perception of using Toulmin model in writing argumentative essays. The result shows that the students had positive perception towards the writing instruction. Overall, it was found that the interviewees had positive perception towards using Toulmin model in argumentative writing.

1. The students' perception of writing ability when using Toulmin model of argumentation in writing argumentative essays

Based on the interview responses, all interviewees reported that they agreed that Toulmin model can help them when writing argumentative essays in two main aspects. Firstly, it helps them to construct arguments in a logical way because they knew about the elements of argument that needed to be presented in an essay. They could follow the steps of writing argument based on Toulmin model and could check whether their arguments were strong or not. They could also check the relevance of evidence and claim.

Excerpt A: “ตัวทูลมินโมเดล ช่วยให้หนูเรียบเรียงลำดับเหตุผล หลักฐานได้ดีขึ้นค่ะ”

“Toulmin model helps me to reorder our reasons and evidence in a logical way.”

Excerpt B “ทูลมินโมเดลช่วยได้เพราะ เราจะรู้สึบดีปการเขียนไปที่ละอย่าง เราจะรู้องค์ประกอบโดยรวมของงานเขียน ซึ่งส่งผลให้งานเขียนที่เราเขียนออกมานั้นมีเป็นหลักการ ไม่ out of topic หรือออกจากเนื้อหา และยังทำให้เขียนเป็นเหตุเป็นผลมากขึ้นด้วยครับ”

“Toulmin model helps in writing because it makes us realize the steps of writing. We knew the overall picture of the writing piece. As a result, our writing pieces turned out to be logical, and not go out of topic or content. Moreover, it also helps us to write in logical ways”

Excerpt C: “ทูลมินโมเดลช่วยให้เราเขียนสัมพันธ์กันมากขึ้น บางอย่างถ้าเรา claim ไปแล้วไม่มี evidence หรือไม่มีอะไรไป support ต่อ มันก็จะฟังดูไม่มีเหตุผล แต่พอใช้ตัวโมเดลแล้วแล้วทำให้ งานเขียนดูมีเหตุมีผลมากขึ้นค่ะ”

“Toulmin model helps us in terms of the relevance of content in essays. When we make a claim about something and we do not provide evidence to support it, the argument will be unreasonable. By using the model, our writing is more logical and reasonable.”

Secondly, the model helps them to focus on the writing topic, avoid going out of topic, and avoid using irrelevant evidence to support their argument.

Excerpt A: “ทูลมินโมเดลช่วยในเรื่องการเขียนค่ะ เพราะได้คิดเป็นขั้นตอน อะไรเกิดก่อน เรื่องราวต้องเป็นยังไงต่อไป เวลาเขียนทำให้เราได้คิดมากขึ้นค่ะ”

“Toulmin model helps in writing because I can think systematically-- which events happen first, and what will happen next. It makes me consider more when writing”

Excerpt B: “ถ้าไม่ได้เรียนเกี่ยวกับทูลมิน ก็จะเขียนเหตุผลแบบข้างๆคูๆ หรือ ออกนอกเรื่องบ้าง”

“If I didn't learn about Toulmin model, I would provide illogical reasons for my essay or I would go out of topic easily.”

Excerpt C: “เวลาเขียนทูลมินช่วยให้เราเช็คได้ว่า หลักฐานที่เขียนไปเกี่ยวกับหัวข้อใหม่ มีเหตุผลพอไหม”

“When using Toulmin model, it helps in terms of checking the relevancy of the evidence and the claim as well as the rationality of the evidence.”

2. The students' perception of elements of Toulmin model of argumentation

2.1 Claim, Evidence, and Warrant

From the students' responses, it was also found that the students agreed the three essential elements of Toulmin model including claim, evidence, and warrant played a vital role when writing arguments. Claim, evidence, and warrant made the writing easier to be understood, believable, as well as made the writers to stay on the topic. Moreover, the students thought that all three elements were related and they were important in terms of constructing effective argument. Claim, evidence, and warrant helped the students to see the whole picture of the argument and guided them to write effectively. Some excerpts from the interview transcripts were shown below.

Excerpt A: “claim, evidence, warrant แต่ละตัวสำคัญมากเพราะช่วยให้งานเขียนเราเข้าใจง่าย อ่านแล้วไม่สับสน สิ่งที่เขียนมีเหตุผลรองรับเป็นลำดับๆไป”

“Each essential element of the model including claim, evidence, and warrant is very important because it helps our writing piece easy to be understood for readers. They do not feel confused when reading our work. The elements also help us to provide supporting reasons orderly in a logical way.”

Excerpt B: “ทั้งสามตัวสำคัญค่ะ claim จะเป็นตัวที่เหมือนเป็นคอนเซ็ปหลักของพารากราฟที่ทำให้เรารู้กรอบและเขียนได้ง่ายขึ้น ไม่ทำให้เราหลุดออกนอกกรอบของหัวข้อนั้น ๆ evidence จะช่วยให้เราหาสิ่งที่จะอธิบายเพื่อ support หรือตัวอย่างมาอธิบาย claim ให้ชัดเจนได้ง่ายขึ้นและมองเห็นชัดขึ้นว่าสิ่งที่เราจะเอามาสนับสนุนนั้นมัน เกี่ยวข้องกับ claim ของเรารึเปล่า ส่วน warrant จะช่วยให้เราหาเหตุผลมาอธิบายซึ่งจะช่วยทำให้เข้าใจสิ่งที่เราเรายกมาง่ายขึ้น ทำให้เห็นความเกี่ยวเนื่องกันทั้งพารากราฟระหว่าง claim กับ evidence ซึ่งจะทำให้เราเห็นภาพโดยรวมที่น่าเชื่อถือมากขึ้น”

“All three elements are very important. Claim is like a main concept of a paragraph which allows us to focus on our topic and write easier. Evidence

helps us to find explanation, support, or examples for our claim easier, and it is more obvious to identify the relevance between claim and evidence. Warrant helps us to explain the reasons and it makes us understand what we have mentioned easier. We can see the relationship of the whole paragraph, and the relationship between claim and evidence. It makes our writing more trustworthy.”

Excerpt C: “ทั้ง3ตัว มีความสำคัญต่อการเขียน Argumentativeหมดเลย ตัวแรกคือ Claim คิดว่าตัวนี้เป็นตัวสำคัญที่สุด เพราะถ้าไม่มี claim ก็ไม่สามารถต่อยอดไปจุดอื่นๆได้ Evidence ก็สำคัญเพราะเป็นตัวช่วยสนับสนุน claim ของเราให้มีความน่าเชื่อถือ และตัวสุดท้าย Warrant ก็ช่วยอธิบายตัวหลักฐานของเราให้มีความชัดเจนมากยิ่งขึ้นค่ะ ทั้งสามตัวมันทำให้เราเห็นภาพรวม ว่าควรจะเริ่มเขียนจากตรงไหนก่อน เอาอะไรมาสนับสนุนหลักฐานให้มีความน่าเชื่อถือ ทำให้งานเขียนมีประสิทธิภาพ เพราะได้คิดแบบเป็นขั้นเป็นตอนก่อนเขียนค่ะ”

“All three elements are essential for argumentative writing. The first element—claim—is the most important one. If the writing does not contain a claim, other elements cannot be presented. Evidence is also important since it supports the claim and makes it reliable. The last one is warrant. It helps explaining the evidence explicitly. All three elements help us to see the whole picture of our argument. It guides us where to start and what evidence should be used in order to support the claim. As a result, it makes our writing effective because we think systematically before writing.”

Excerpt D: “Essential elements ของทูลมินโมเดล ช่วยให้ม้งานเขียนมีความน่าเชื่อถือและทำให้เหตุผลชัดเจนมากขึ้น ทั้งสามส่วนประกอบเป็นตัวช่วยให้เขียนได้อย่างตรงจุด ไม่วกวน นอกจากนี้ยังช่วยให้การเขียนกระชับ อธิบายเหตุผลได้ชัดเจน น่าเชื่อถือ ทั้งสามส่วนประกอบมีความสำคัญต่อการเขียน Argumentative มากๆค่ะ เช่น Warrant จะช่วยอธิบายความเชื่อมโยงของ Evidence และ Claim ให้ชัดเจนและมีน้ำหนักค่ะ”

“Essential elements of Toulmin model help writing pieces to be more reliable and logical. These three elements help a writer to write to the point, not beating around the bush. Moreover, they also helps a writer to write concisely, explain reasons clearly, and credible. These three elements are very important for argumentative writing. For example, warrant helps explaining the relevance of evidence and claim and makes it piece more explicit and believable.”

In addition, all of three essential elements of Toulmin model, the students thought that warrant is the most difficult part to write. They mentioned that it was confusing to differentiate evidence and warrant sometimes. In addition, it is difficult because it is related to claim and evidence, and it also need to be convincing and believable.

Excerpt A: “ตัวที่ยากที่สุดคือ warrant ค่ะ เพราะค่อนข้างสับสนนิดหน่อยเลยอาจจะเขียน warrant ที่ไม่เกี่ยวกับ evidence ลงไปได้”

“The most difficult element for me is warrant. It is quite confusing. Sometimes I might write warrants which are irrelevant to the evidence in my writing piece.”

Excerpt B: “ส่วนที่ยากที่สุดคือ evidence and warrant เพราะต้องเป็นสิ่งที่เกี่ยวข้องกับ claim และดูโน้มน้าวใจและน่าเชื่อถือ”

“Evidence and warrant is the most difficult part since it has to be related to the claim, convincing, and believable.”

Excerpt C: “Warrant เขียนยากสุดค่ะ เพราะต้องอธิบายความเชื่อมโยง ให้ผู้อ่านเข้าใจได้ง่ายที่สุดและชัดเจน ซึ่งบางครั้งอาจจะสับสนระหว่าง Evidence และ Warrant ค่ะ”

“Warrant is the most difficult element to write, because I need to explain the relation [between claim and evidence] and try to make readers understand

easily and explicitly. I was confused between evidence and warrant sometimes.”

Excerpt D: “ที่เขียนยากคือ Warrant เพราะว่ามันหมายถึงหลักฐานขั้นที่สองเพื่อยืนยันในสิ่งที่เราคิดถ้าคนอ่าน ยังไม่เชื่อใน Evidence หรือเกิดข้อสงสัย warrant จะช่วยย้าให้คนอ่านเชื่อในสิ่งนั้นอีกครั้งหนึ่ง ส่วนที่ง่ายที่สุดคือ Claim เพราะเราแค่หาในสิ่งที่เราเชื่อที่ยังไม่ต้องมีหลักฐานว่าทำไมเราเชื่อแบบ นั้น”

“Warrant is the most difficult part, because it is like the secondary evidence to ensure our thoughts if readers do not believe the evidence or if they have doubts. Warrant helps to convince the readers. The easiest part is claim, because we just write our position without providing any evidence to support our thought.”

2.2 Qualifier, Backing, and Rebuttal

According to the interview, the students reflected that the three optional of Toulmin model including qualifier, backing, and rebuttal were important in some extent. The students mentioned that if the arguments contained these three elements, the arguments would be stronger, more effective, and more interesting. In addition, all of these three elements, the students felt that backing was the least important, while rebuttal was the most important part, because rebuttal helped them to consider both sides of the argument, avoid bias, and made the writing piece more convincing and credible.

Excerpt A: “ถ้าเขียนครบทุกตัว แล้วเอามาประกอบกันในงานเขียน มันจะทำให้งานเราดูมีประสิทธิภาพมากๆ คือ Backing ก็นำมาใช้เพื่อสนับสนุนตัวWarrantอีกทีเพื่อให้มันดูมีเหตุผลมากขึ้น Rebuttal ก็เอาไว้เขียนอีกประเด็นที่ตรงกันข้ามกันประเด็นหลักของเรา ใ้งานเขียนเราดูโปรมากขึ้น Qualifiers ก็เป็นอีกจุดเล็กๆที่สำคัญ ที่ช่วยใ้งานของเราดูสมบูรณ์แบบค่ะ”

“If backing, warrant, and rebuttal are presented in the writing piece, it will strengthen our writing and make it more effective. Backing is used to support warrant in order to make it sounds logical. Rebuttal is used to introduce opposing ideas to our main idea and it makes our writing look more professional. Qualifier is one small point that helps our writing perfect as well.”

Excerpt B: “บางตัวก็มีตัวส่วนช่วยในการเขียนค่ะ อย่างเช่น rebuttal ที่ช่วยให้เราได้ลองคิดในอีกมุมหนึ่ง ทำให้งานเขียนดูมีความน่าเชื่อถือมากขึ้นเพราะเหมือนเราผ่านการวิเคราะห์มา จากหลาย ๆ มุมแล้วแล้วค่อยมาสรุปว่ายังไงอย่างที่เราออกไปก็ดีที่สุดที่อยู่ดี และ qualifier ก็มีตัวช่วยบ้างคือ ทำให้งานเขียนดูมีความน่าเชื่อถือมากขึ้น ส่วน backing ส่วนมากก็ไม่ค่อยได้ใช้ค่ะ”

“Some element helps in writing. For instance, rebuttal helps us to think from the other side. It makes the writing piece look more credible as if we have thought and considered from many angle, and then we end it with the idea that our position was still the best one. Qualifier also helps in some extent. It makes the writing look more believable, while backing is rarely used.”

Excerpt C: “Optional Elements ก็มีความสำคัญในการเขียนเช่นเดียวกันค่ะ เพราะการมีส่วนประกอบเพิ่มเติมจะช่วยให้ผู้อ่านเข้าใจถึงปัญหา รู้ข้อมูลเบื้องต้น เข้าใจในเหตุผลมากขึ้น และในส่วน of rebuttal จะแสดงถึงการไม่มี bias และแสดงความครอบคลุมของประเด็นที่ผู้เขียนมีต่อหัวข้อมากขึ้น นอกจากนี้ยังทำให้งานเขียนมีความน่าสนใจมากขึ้นด้วย”

“Optional elements are also important for writing, because having these elements helps readers to get into the problem, know basic information, and understand better. In terms of rebuttal, it shows that the writer do not have bias and he or she also cover all points of the issue. In addition, it also makes the writing piece more interesting. ”

Excerpt D: “ก็สำคัญค่ะ โดยเฉพาะ rebuttal เพราะตัวนี้ช่วยให้เรา ดูเหมือนเป็นคนกลาง ถึงแม้เราอาจจะบอกข้อเสียของสิ่งนั้นไป แต่เราก็ยังบอกข้อดีของสิ่งนั้นไว้ให้คนอ่านได้ลองวิเคราะห์ดู

เพราะเราไม่ได้เขียนแค่ด้านที่เราเห็นด้วยด้านเดียว ซึ่งมันทำให้งานของเราดูน่าเชื่อถือขึ้นไปอีก ส่วนอีกสองตัว หนูรู้สึกเหมือนจะไม่มีในงานเขียนของหนูเลย หนูคิดว่าว่ามันไม่ค่อยจำเป็นค่ะ”

“[The three optional elements] are important, especially rebuttal. It helps us sounds objective. Although we mention disadvantages of something, we still provide advantages so that readers can think and analyze. Since we do not write from only one side, our writing piece look more believable. For the other two elements, I did not include them in my writing. I did not feel they were necessary.”

In addition, the students’ interviewed reported that they had different ideas about both the easiest and the most difficult part of optional elements of Toulmin model. For the most difficult part, two students mentioned that backing was the hardest one, because they could not think of any ideas to support warrant. Two of the students thought all elements were the same difficult, while the other two students said that rebuttal was the most difficult part because they needed to present opposing idea and refute it; however, two students had opposing ideas. They thought that rebuttal was the easiest part of optional elements.

Excerpt A: “Rebuttal เขียนยากสุดค่ะ เพราะเราต้องหียบยกประเด็นที่คัดค้านกับสิ่งที่เราเขียน และต้องเขียนให้มี ความพอดีและไม่โดดเด่นมากเกินไป”

“Rebuttal is the most difficult part to write because we need to present opposing ideas to our claim properly and avoid making rebuttal too outstanding.”

Excerpt B: “ตัวที่ยากที่สุดน่าจะเป็น rebuttal เพราะเราต้องเขียนเหมือนเป็นการยืนยันให้เห็นว่าความคิดเราถูกต้องที่สุด ดีที่สุด เหมือนต้องโน้มน้าวใจให้คนอ่านเชื่อในสิ่งที่เราคิดแบบนั้นจริง ๆ”

“The most difficult element is rebuttal, because we need to write in order to affirm that our position is right and it is the best. It is like we need to convince the readers to believe our ideas.”

Excerpt C: “คิดว่า Rebuttal ง่ายที่สุดเพราะเป็นสิ่งที่เขียนแสดงประเด็นที่ต่างออกไปจากประเด็นหลักที่เราsupport ทำให้งานเขียนของเราดูมีความน่าเชื่อถือมากขึ้นด้วย เพราะไม่ได้เป็นแค่เหมือนการอวยเฉพาะด้านหลักที่เราสนับสนุนอย่างเดียว แล้วก็Backing ยากที่สุดในสามตัวนี้ เพราะบางที่เราก็ไม่รู้ว่าเขาจะเอาอะไรมาเขียน คิดยากมากๆเลยล่ะ เลยทำให้สับสน”

“Rebuttal is the easiest part because it points out the opposing ideas from our main point. It makes our writing more credible since we do not focus on our position only. The most difficult part is backing. I do not have any ideas to write about. It is difficult to think of backing and it makes me confused.”

Excerpt D: “ในความคิดส่วนตัวนั้น สามตัวนี้ยากเท่ากันค่ะ เนื่องจาก ยังไม่เคยเขียนงานในรูปแบบนี้มาก่อน เลยค่อนข้างสับสน คิดว่าต้องใช้เวลาทำความเข้าใจ และฝึกมากกว่านี้ค่ะ”

“In my personal opinion, these three elements are the same difficult because I have never written based on this model before. I was quite confused. I think I need more time to understand and practice them.”

2.3 Six elements of Toulmin model—claim, evidence, warrant, qualifier, backing, and rebuttal

From all six elements of Toulmin model—claim, evidence, warrant, qualifier, backing, and rebuttal, many students mentioned that claim and evidence were the elements that they liked the most, because they thought that sometimes only these two elements were enough to write a sound argument. Some students expressed that they did not like rebuttal. They thought it was difficult to write a good rebuttal, because they needed to write an opposing idea properly and then refute the idea.

Excerpt A: “ชอบ การเขียน Claim ที่สุด เพราะไม่ยุ่งยาก เพียงแสดงผลในสิ่งที่เราคิดและไม่ชอบ Rebuttal ที่สุด เพราะยากต่อการเขียนให้ออกมาพอดี Rebuttal ต้องไม่เด่นและ สุดท้ายต้องเขียนสรุปกลับมาให้อยู่ในประเด็นของเรา มันยากค่ะ”

“I like writing claim the most, because it is not complicated. I just express my ideas logically. However, I do not like rebuttal since it is difficult to present it in a moderate way. Rebuttal cannot be outstanding. Finally, I need to write back to my main point which is difficult.”

Excerpt B: “ชอบ claim กับ evidence มากที่สุดค่ะ และคิดว่ามันสำคัญที่สุด เพราะแค่มีสองตัวนี้ก็สามารทำให้เขียนออกมาได้ค่อนข้างชัดเจนหรือสมบูรณ์ แล้ว ไม่ค่อยชอบ rebuttal บางทีเพราะมันเหมือนเราเขียนซ้ำ ๆ และคล้ายกับ conclusion มากจนเกือบเหมือนกัน ทำให้บางที่สับสนไปเลย”

“I like claim and evidence the most and I also think they are the most important, because only these two elements are enough for a good writing piece. I do not really like rebuttal. Sometimes it is like I write repeatedly. It is very similar to conclusion and it makes me confused.”

Excerpt C: “ชอบ claim, evidence, warrant, rebuttal ค่ะ เพราะถ้าในงานมีสามอย่างนี้ก็เหมือนจะโน้มน้าวคนอ่านได้พอสมควรแล้ว ตัวที่เหลือชอบน้อยที่สุดเพราะ บางทีการหาสิ่งที่มารองรับเหตุผลก็เราหลายๆขั้นมันก็ยากค่ะ”

“I like claim, evidence, warrant, and rebuttal. If my writing contains these four elements, it seems like my writing can convince readers enough. The rest elements the least favorite since sometimes it is difficult to find many things to support our reasons.”

Excerpt D: “ชอบ ตัว Rebuttal มากที่สุดค่ะ เพราะมันทำให้งานเขียนดูมีความน่าเชื่อถือ ไปได้เขียนเสนอในด้านที่ต่างออกไปจากประเด็นหลักบ้าง ตัวที่ไม่ชอบมากที่สุดก็คงจะเป็น Backing ค่ะ เพราะคิดว่าไม่จำเป็นต้องเขียนก็ได้ค่ะ”

“I like rebuttal the most, because it makes my writing credible because I can present ideas that are different from the main point. My least favorite is backing. I think it is not necessary.”

The second interview question: Do you think flipped learning helps you improve your English writing skill more than a traditional way? If yes, how? If not, what difficulties did you experience in the course?

From the interviews, the result pointed out that the majority of the students thought that flipped learning can help them improve their argumentative writing skill more than a traditional way (four of six students). They felt that flipped learning provided them opportunities to expose to lessons before coming to class. They could watch the video lessons as many times as they wanted anytime and anywhere. They had better understanding of the lessons and they also practiced more effectively in class with immediate helps from the teachers.

1. The students' perception of out of class activities

Most students felt that learning writing in flipped learning environment helped them to improve their argumentative writing skills better when compared to a traditional classroom. Watching lectured videos before coming to class could help them understood the lessons better. They could prepare questions to ask in class and they could learn from the videos whenever they felt convenient. As a result, they said that they got better understanding of the lessons.

Excerpt A: “คิด ว่าการเรียนแบบฟลิปช่วยพัฒนาการเขียนมากกว่าการเรียนแบบธรรมดาในห้อง ค่ะ เพราะเราได้ศึกษาเนื้อหา และทำความเข้าใจผ่านทางวิดีโอก่อนที่จะไปเรียนในห้อง ถ้าเรามีคำถามก็สามารถนำไปถามอาจารย์หรือแชร์ความคิดเห็นกับเพื่อนๆในห้องได้”

“I think flipped learning helps developing writing skills more than a traditional method, because we expose to the content and try to understand via the videos before go to class. If we have any questions, we can ask a teacher or share our ideas with friends in class.”

Excerpt B: “ช่วยมากกว่า เพราะการเรียนผ่านคลิป สามารถเรียนได้ทุกที่ ถึงแม้เราจะกินข้าว หรือทำอะไรอยู่ หรือแม้แต่การเข้าห้องน้ำก็ตาม แต่ถ้าเราเรียนในห้องผ่านอาจารย์ เราต้องเข้าห้องเรียนถึงจะได้ข้อมูลโดยตรง แต่บางครั้งเราก็อาจจะพลาดเนื้อหาสำคัญได้ แต่การเรียนผ่านคลิปวิดีโอ เราสามารถย้อนกลับไปกลับมาเพื่อดูหลายๆรอบ เพื่อเข้าใจมากขึ้นได้”

“Flipped learning helps in learning more than a traditional way because we can learn everywhere. We can watch the videos while we are having lunch, or going to toilet, or doing something else. In a traditional classroom, we learn from the teacher and we need to attend the class so that we can get the information directly. However, learning from the videos, we can watch them many times for better understanding.”

Excerpt C: “การเรียนแบบฟลิปช่วยได้ มันเหมือนกับเราเตรียมพร้อมมาก่อน แล้วมาเสริมความเข้าใจที่ห้องเรียนโดยการฝึกอีกที มันเหมือนการเรียนรู้ด้วยตัวเองแบบหนึ่งค่ะ”

“Flipped learning helps in learning because we prepare before coming to class and then we develop our understanding more by practicing in class. It is like one kind of self-directed learning.”

Excerpt D: “ช่วย มากกว่าแบบธรรมดาค่ะ เพราะการที่เราได้ดูวิดีโอมาก่อนมันทำให้เราพอมีความรู้เกี่ยวกับเรื่องนั้น ๆ มาแล้วบ้าง แล้วพอมาทำกิจกรรมในห้องมันช่วยให้กิจกรรมต่าง ๆ ดูเข้าใจง่ายขึ้นและสนุกมากขึ้น”

“Flipped learning helps in learning more than a traditional way. Watching the lectured videos prior provides us some knowledge so that we can do the activities easier and enjoy doing them.”

However, there were two students who thought that flipped learning improved their argumentative writing ability as much as a traditional method. The main reasons they provided was the laziness. Since out of class, they did not watch the videos, they could not practice in class effectively.

Excerpt A: “หนูคิดว่าการเรียนแบบพลิกพัฒนาเท่าๆกันกับห้องเรียนธรรมดา ห้องธรรมดาสอนในห้องแล้วกลับมาทำเป็นการบ้าน แต่กับพลิกเราดูเนื้อหามาก่อนแล้วมาทำในห้อง สำหรับหนูก็เท่าๆกัน อุปสรรคคือ ความขี้เกียจ บางทีก็ไม่ได้ดูเนื้อหามาก่อน เลยทำในห้องไม่ค่อยได้ค่ะ”

“I think learning in flipped environment develops my English skills as much as learning in a traditional classroom. In a traditional classroom, a teacher teaches in class and provides homework, while in a flipped classroom, we watch the content before; then practice in class. My obstacle is laziness. Sometimes I did not watch the videos before. Therefore, I could not do the activities in class well.”

Excerpt B: “พัฒนาพอๆกันค่ะ เพราะโดยส่วนตัว เป็นคนขี้เกียจนิดหน่อย อาจจะไม่ดูวิดีโอมาก่อน เวลาทำกิจกรรมในห้องเลยทำไม่ค่อยได้ และด้วยระยะเวลาจำกัดในการเขียนในห้อง ทำให้คิดไม่ไฉนไม่ค่อยออกด้วยค่ะ”

“Learning in flipped environment develops my English skills as much as learning in a traditional classroom. Personally, I am quite lazy. I did not watch the videos sometimes and I could do the activities in class effectively. In addition, with the limited time in class, it was difficult to brainstorm ideas for writing.”

Besides, the interviewees also mentioned difficulties that they encountered when learning in a flipped classroom. They thought that some videos were difficult to understand if there were not any subtitles available. Moreover, when watching the

videos, sometimes they had questions and they could not ask the teacher at that time. One student mentioned they encountered the technology difficulties. Sometimes the Internet connection wasn't stable so that she could not watch the video.

Excerpt A: “บางครั้งคลิปก็ดูไม่ค่อยเข้าใจ บางที่ต้องการการตอบโต้ทันทีเวลามีข้อสงสัยค่ะ”

“I could not understand some videos. Moreover, when I had questions, I would like to ask and receive instant answers.”

Excerpt B: “แต่บางทีฟังวิดีโอไม่ทัน แปลไม่ออกบ้าง เลยเข้าใจได้ยาก แต่ตัววิดีโอที่มีซับไทเทิล จะเข้าใจได้ง่ายกว่า”

“Sometimes I could not catch with the video. It was difficult to understand and I could not interpret it. However, some videos with subtitles is easier to be understood.”

Excerpt C: “อุปสรรคที่พบเป็นเรื่องของเทคโนโลยีค่ะ บางครั้งมันก็มีปัญหาเรื่องการเชื่อมต่อบ้าง การใช้งาน Edmodo หรือการส่งงานออนไลน์บ้าง บางทีดูวิดีโอไม่ได้บ้าง”

“The obstacle I found was about technology. Sometimes the Internet connection was not stable so that I could not watch the video. In addition, I had problems with using Edmodo and submitted my assignments as well.”

2. The students' perception of in class activities

The students revealed that they could practice more writing in class. Moreover, they had more interactions with friends and the teachers, unlike a traditional writing classroom. They received more suggestions and feedback from the teacher as well as received helps while they were writing. They enjoyed brainstorming reasons for writing. Moreover, they also mentioned that by brainstorming and discussion, they created more ideas and it was better than writing on their own.

Excerpt A: “ได้ฝึกเขียนมากขึ้นกว่าเดิม เวลาที่ฝึกเขียนแล้วไม่แน่ใจว่าถูกหรือเปล่า ก็สามารถถามอาจารย์ในห้องเรียนได้เลย ต่างกับคลาสอื่นๆที่อาจารย์ส่วนใหญ่จะให้เราไปฝึกเขียนที่บ้าน แล้วเวลาเราง ก็ถามใครไม่ได้ เพราะถ้าไปถามเพื่อน เพื่อนก็งเหมือนกัน”

“We practice writing more. When we do not sure about our writing, we can ask the teacher at that time. It is different from other classes which a teacher usually asks students to write at home. When we are confused, we do not know who to ask. When we ask our friends, it does not help because our friends are confused too.”

Excerpt B: “เพราะการที่เราได้ดูวิดีโอมาก่อนมันทำให้เราพอมีความรู้เกี่ยวกับเรื่องนั้น ๆ มาแล้วบ้าง แล้วพอมาทำกิจกรรมในห้องมันช่วยให้กิจกรรมต่าง ๆ ดูเข้าใจง่ายขึ้นและสนุกมากขึ้น”

“Because of watching lectured videos before class, we have some knowledge for a lesson. Therefore, when we come to class, it is more fun and also easier to perform in-class activities.”

Excerpt C: “กิจกรรมในห้องที่เราทำส่วนมากดีค่ะ โดยเฉพาะเวลาให้จับกลุ่มแล้วเบรนสตรอมแล้วให้แชร์ไอเดียกันกับเพื่อน ๆ ในหัวข้อที่เราจะเขียนต่อไป เพราะทำให้เราเห็นมุมมองใหม่ ๆ อีกเยอะในแบบที่เราคิดไม่ถึง บางอย่างก็สามารถเอาไปต่อยอดในงานเขียนเราได้ ช่วยให้การเรียนและงานเขียนของเราง่ายขึ้นกว่าเรียนแบบธรรมดาค่ะ”

“Most in-class activities are great, especially brainstorming. In groups, we brainstorm ideas with peers about a topic we are going to write. It expands our views and gives ideas that we have never thought of. Some ideas can be used for our writing, and it makes learning and writing easier than a traditional classroom”

Excerpt D: “ข้อดีก็คือการฝึกเขียนในคลาส เวลามีปัญหาสามารถปรึกษาอาจารย์ได้เลย และกิจกรรมที่ทำในห้องก็ดีค่ะได้เพื่อนๆช่วยกันระดมความคิด เลยทำให้ได้คุยกับเพื่อนกับอาจารย์มากขึ้นด้วยค่ะ”

“The benefit is in-class writing practice. Whenever I have problems, I can ask the teachers at that time. Moreover, activities performed in class, especially brainstorming ideas with friends, were good. I could interact more with friends and the teachers.”

Excerpt E: “เวลาที่เรเขียนงานในห้องเรียน เราสามารถถามอาจารย์ได้ว่าต้องแก้ตรงไหน โอเคหรือยัง ถ้าเป็นห้องเรียนธรรมดา เราเขียนที่ห้องเรา ไม่มีคนให้ถาม เราก็เลยไม่รู้ว่าจะควรแก้ ควรปรับตรงไหน”

“When writing in class, we can ask the teacher where we need to edit. For a traditional writing classroom, we write at home; there is nobody to help, so we do not realize what points we need to revise.”

3. The students' perception of materials used in flipped session

In terms of materials, the students showed positive perception towards Edmodo and online videos. All of them were interested in using Edmodo. They mentioned that Edmodo was very useful for their learning since they could submit work, ask and answer questions, watched videos, and read the file online easily. It was one easy way to contact with the teacher.

Moreover, concerning to the videos, the students said that the videos helped them to understand the lesson easier since they could watch it as many times as they wanted. The videos made by the researcher were easy to understand. The content was concise and interesting. Furthermore, the PDF files related to the lessons were also useful. The students mentioned that they could read it through their smartphone anytime and anywhere which is very convenient for them.

Excerpt A: “Edmodo สะดวกในการติดตามงาน/การบ้าน รวมถึงการส่งงาน แล้วก็ติดต่อกับอาจารย์ได้ง่ายด้วยค่ะ รู้สึกว่าพอได้ใช้ Edmodo แล้วทำให้ได้ฝึกทักษะการเขียนเพิ่มมากขึ้นกว่าแต่ก่อน การดูวิดีโอเป็นอีกวิธีที่ทำให้เข้าใจบทเรียนมากขึ้น และถ้าไม่เข้าใจหรือสับสนก็สามารถย้อนกลับ

ไปดูได้อีกหลายๆครั้งค่ะ ส่วนตัว PDF File ตัวนี้มีประโยชน์มากๆเลยคะ เนื้อหาต่างๆในเอกสารละเอียดและทำให้เข้าใจบทเรียนได้ชัดเจนมากๆ”

“Edmodo is very convenient and easy way to follow up homework, hand in assignments and contact the teacher. I felt that when I used Edmodo, I could practice writing more. Watching videos is one way that made me understand the lessons better. If I do not understand or I get confused, I can watch it many times. For the PDF file, it is very useful. The content is detailed and it made me understand about the lessons clearer.”

Excerpt B: “Edmodo ช่วยในเรื่องการส่งงานและความสะดวกในการเรียนผ่านเว็บหรือวิดีโอ ซึ่งทำให้ง่ายต่อการเรียนรู้ล่วงหน้าโดยไม่ต้องรอไปเรียนในห้องและพูดคุย สนทนากับอาจารย์ได้เลยทันทีหากมีข้อสงสัย วิดีโอ อันนี้คิดว่าช่วยได้ค่อนข้างเยอะคะ โดยเฉพาะที่อาจารย์เป็นคนทำมาให้เอง เพราะเหมือนเป็นการสรุปเรื่องที่ยาว ๆ และยากให้มันสั้นกระชับและเข้าใจง่ายขึ้นคะ PDF file อันนี้ก็ช่วยได้มากคะ เพราะบางทีดูแล้ววิดีโอมันก็จำไม่ได้ และจะเข้าใจแบบสั้น ๆ ง่าย ๆ แต่ในไฟล์เอกสารนี้จะมีเนื้อหาและตัวอย่างยาว ๆ ที่อ่านได้เมื่อรู้สึกไม่เข้าใจตรงไหนหรือต้องการข้อมูลตรงส่วนไหนเพิ่มเติม”

“Edmodo is convenient for submitting assignments and learning via website or videos which is easier for students to learn prior. They do not need to wait to learn in class. They can talk with the teacher at the time they have questions. For the videos, it helps in learning a lot, especially the videos made by the teacher. It was like a summary of contents. It was concise and easy to understand. For the PDF file, it was very helpful as well. Sometimes watching video only was not enough, but on the PDF file, there were a lot of information and examples provided which students could read it for better understanding.”

Excerpt C: “Video ของอาจารย์มีส่วนช่วยในการทำความเข้าใจมากขึ้นเยอะเลยคะ การเรียนแบบดูวิดีโอควบคู่ไปกับการอ่านทำความเข้าใจก่อนเรียน ช่วยให้หนูเข้าใจมากยิ่งขึ้นคะ วิธีการนี้ช่วย

กระตุ้นให้หนูมีความพร้อมในการเรียนมากยิ่งขึ้น เพราะการทำความเข้าใจในเอกสารการเรียนและดูวิดีโอไปก่อน แล้วไปฟังอีกครั้งหรือปฏิบัติในห้องเรียน วิธีการนี้ช่วยให้หนูรู้ว่ามีส่วนไหนที่ยังไม่เข้าใจ และสามารถถามอาจารย์ได้ในห้องเรียนเลย”

“The videos made by the teacher help me a lot in order to understand the content. Learning from the video, along with read and try to comprehend the content before class, develop my understanding. This way also encourages me to be more ready for learning. By reading the materials, watching the videos prior, and then listen and do the activities in class, This method helps me to realize which parts of the lessons I do not understand and I can ask the teacher in class.”

Excerpt D: “ส่วนตัวแล้วชอบวิดีโอของอาจารย์เพราะไม่ได้มีเนื้อหาที่เยอะมากเกินไป ทำให้ไม่น่าเบื่อ ทำให้เมื่อมาเรียนในห้องเราเข้าใจในสิ่งที่อาจารย์อธิบายมากขึ้น”

“Personally, I like the teachers’ videos because they do not contain too much information. Therefore, it is not boring. When I go to class, I have better understanding when the teacher explains the lessons.”

Excerpt E: “การเรียนแบบดูวิดีโอ ช่วยได้หลายทางครับ ทั้งคนที่ไม่ค่อยมีเวลาหรือคนที่ไม่ค่อยเข้าใจเนื้อหาระหว่างเรียนเขาสามารถเปิดดูได้ทุกที่ทุกเวลา ซึ่งเป็นผลที่ดีกับนิสิตทุกคน สามารถเข้าใจได้ดีขึ้น ส่วนวิดีโอของอาจารย์ผมคิดว่า มันยังขาดรูปแบบการนำเสนอที่น่าสนใจ อาจจะมีกราฟ หรือสรุปย่อที่ทำให้เห็นภาพที่เข้าใจง่าย ส่วนด้านเนื้อหา บางครั้งมันก็ขึ้นเร็วจนอ่านไม่ทัน ส่งผลต่อการดูคลิปทำให้หยุดเพื่ออ่าน และทำให้ดูไม่ต่อเนื่องครับ ส่วนเนื้อหาที่ต้องอธิบายอย่างละเอียดควรอยู่ในรูปของไฟล์ครับเพื่อให้นิสิตสามารถอ่านประกอบกับคลิปวิดีโอได้”

“Learning via the videos helps us in many ways. Some people who do not have much time or who do not understand the lessons, they can watch the videos everywhere and every time. As a result, they have better understanding. For the videos made by the teacher, I think it lacks of interesting way of

presentation. The teacher might add graphs, or a short summary for better understanding. For the content, sometimes the text faded too quickly and I had to pause the video to read the text which interrupted me. For some long content, it should be in form of a file so that students can read while watching the video.”

It was found that the students reflected positive perception of the writing instruction based on Toulmin model in flipped learning environment both through the questionnaire and the interview. Although they might encounter some difficulties during the implementation of the instruction, overall they still had positive perception. Therefore, the second hypothesis stating the students have positive perception towards writing instruction based on Toulmin model in flipped learning environment was accepted.

In conclusion, based on the findings, most of the students liked the writing instruction based on Toulmin model in flipped learning environment and they believed that the instruction helped them improving their writing skills. They felt that Toulmin model of argumentation was useful for constructing effective arguments. For instance, Toulmin model helped them to carefully craft their argument step by step. Then the model allowed them to check the soundness and logic of their argument, and revise it afterwards. Learning writing in a flipped classroom, the students had more chances to interact with peers and teachers, and practice writing. Having more time for practice was very crucial for writing, specifically argumentative genre which was the most difficult genre and which required a lot of time, practice, and useful feedback from teachers. Moreover, they mentioned that materials used in flipped sessions were interesting, engaging, and accessible. Although there were some difficulties that the students experienced in learning, the students still expressed their interest in flipped learning and they also would like to try learning in a flipped classroom with other subjects.

Summary

This chapter reports the findings of the study concerning the effects of writing instruction based on Toulmin model in flipped learning environment. Two research questions were investigated and the results were statistically analyzed. The first research question concerning the effects of writing instruction based on Toulmin model in flipped learning environment revealed that there was a significant improvement of students' argumentative writing ability. Therefore, the first hypothesis was accepted. The second research question concerning the perceptions of the students towards writing instruction based on Toulmin model and flipped learning environment indicated that the students had positive perception towards the writing instruction. Thus, the second hypothesis was accepted as well.

In brief, the findings clarified that the writing instruction based on Toulmin model in flipped learning environment was effective in terms of improving students' argumentative writing ability. Furthermore, the students also had a positive perception towards writing instruction based on Toulmin model in flipped learning environment.

The next chapter explains the summary of the study, the discussions of the findings, and the recommendations for future research.

CHAPTER V

SUMMARY, DISCUSSIONS, AND RECOMMENDATIONS

This final chapter mainly deals with the discussions of the findings from the study of the effects of writing instruction based on Toulmin model in flipped learning environment. The chapter is composed of five parts: a summary of the study, the research findings, discussion of the research findings, the pedagogical implication from the current study, and the recommendations for future studies.

Summary of the study

This study aimed to examine the effects of writing instruction based on Toulmin model in flipped learning environment on argumentative writing ability of undergraduate students and to explore the students' perceptions towards writing instruction based on Toulmin model in flipped learning environment. A single group pretest-posttest experimental design was employed in order to measure the effects of the writing instruction.

The sample in this study was 17 fourth-year students from English major, Maharakham University. They enrolled in "Expository and Argumentative Writing" course in the first semester of academic year 2015. At first the number of the sample was 15, but there were 2 students who enrolled a week later. These two students did not do pretest, but they participated in the rest of the class; therefore, the total number of sample was 17.

In this study, the whole procedures consisted of two phases. The first phase involved with the development of the instruments. The second phrase was related to the implementation of the writing instruction based on Toulmin model in flipped learning environment.

The first phase of the research procedure was the development of the instruments used in the study. After the population and sample were specified, the researcher studied the related research, studies, journals, documents, theses, and

dissertations about argumentative writing instruction, Toulmin model, flipped learning and other related issues. Then, the research instruments including lesson plans, writing test, questionnaire, and interview questions were developed. The themes of writing prompts and the lesson plans were obtained from informal needs analysis of 20 English major students. The research instruments were evaluated by three experts and they were revised based on the suggestions. After that, the research instruments were piloted with 5 students, who were similar to the participants. Then, lesson plans and other research instruments were revised according to the results from the pilot study.

The second phase, the implementation of the writing instruction based on Toulmin model in flipped learning environment was carried out. In this experiment, the study was conducted in Expository and Argumentative writing course. The instruction lasted 10 weeks (see Appendix F). The students attended the class once a week and each session lasted two hours. The class was conducted in a flipped learning environment that the students were required to watch the lectured videos and did online assignments before coming to class. The first week was about the introduction, the students were required to do the pretest and listened to the orientation of the course. At the end of the course, the students were required to finish the posttest and the questionnaire. Six students were chosen for further interview in order to gain in-depth information about their perception towards the writing instruction.

The analytical scoring rubric was used to assess students' argumentative writing ability (see Appendix D). It was adapted from Argumentative writing rubric based on Toulmin model (Krieger-James, 2012). To ensure the reliability of the score, there was inter-rater help rating the students' paper. The scores obtained from pretest and posttest was analyzed by using paired- samples T-test to compare the students' argumentative writing ability before and after the treatment. The data from the questionnaire was analyzed by using means of arithmetic mean, while the data from the interview was analyzed by using content analysis. The interviews were recorded, transcribed, and looked for similar ideas that the students reflected.

Summary of the Findings

The research aimed to investigate the effectiveness of the writing instruction based on Toulmin model in flipped learning environment on undergraduate students' argumentative writing ability. In addition, the students' perceptions of the implementation of the writing instruction were examined. The summary of findings is presented as follows:

1. Students' argumentative writing ability

According to the first research question, "To what extent does writing instruction based on Toulmin model in flipped learning environment affect argumentative writing ability of undergraduate students?", the writing test (see Appendix C) was used to assess the students' argumentative writing ability before and after the treatment. The rubric used to assess two main aspects of argumentative essays: argument and convention. The argument part counted for 26 points, while the convention part was 5 points. Then the scores from the pretest and posttest were analyzed by descriptive statistics and paired-sample t-test.

The findings revealed that the mean score of the posttest was significantly higher than mean score of the pretest at the significant level of 0.05. The difference of the students' posttest and pretest mean score was 5.73. They gained higher scores on the posttest both in argument and convention parts, but they showed greater improvement in argument part. Therefore, it could be conclude that writing instruction based on Toulmin model in flipped learning environment significantly enhanced undergraduate students' argumentative writing ability.

2. Students' perceptions of the instruction

With regards to the second research question, "What are the perceptions of the students towards writing instruction based on Toulmin model in flipped learning environment?", the questionnaire (see Appendix A) and the semi-structure interview (see Appendix B) were used to explore the students' perception. At the end of the course, all students were asked to finish the questionnaire and six students were chosen to be interviewed based on their writing proficiency.

The result from the questionnaires and semi-structure interview revealed that the students showed positive perception towards the writing instruction. It was found that most of them liked the instruction and believed that it helped them improving their writing skills in terms of forming a sound argument and writing more in class. They felt that Toulmin model of argumentation was useful for constructing effective arguments and helped them to focus on a topic. For flipped learning environment, in class the students had more chances to practice writing, interact with peers and the teachers, as well as receive feedbacks and suggestions from the teacher. Out of class, they could watch the videos as many times as they preferred for their better understanding whenever and wherever. They mentioned that materials used in flipped sessions were interesting and accessible. They also felt that learning in flipped environment is engaging and they would like to try with other subjects. However, there were some difficulties that the students experienced in learning. For instance, without subtitles, some videos were difficult to understand. Some students also mentioned that they would like to get instant feedback when they had questions while watching the videos, and they encountered some technical difficulties when trying to access to the online materials.

Discussion

The purposes of this study were to investigate the effects of the writing instruction based on Toulmin model in flipped learning environment on argumentative writing skills of the fourth year students from Mahasarakham University, and to explore the students' perception towards the writing instruction. According to the purposes, the findings were examined and discussed in relation to two main aspects: students' argumentative writing ability and their perceptions of the instruction.

1. Students' argumentative writing ability

The result from the present study indicated that the students' argumentative writing ability was significantly enhanced after receiving the writing instruction based on Toulmin model in flipped learning environment. The students gained higher scores on the posttest both in argument and convention parts; however, they showed greater improvement in argument part. The reasons for the development of argument might be from Toulmin model of argumentation which aimed to improve students' argumentative writing skills. All six elements of Toulmin model had a purpose to help constructing effective arguments. In accordance with the literature review, the researcher identified two main factors that affected the improvement of the student's argumentative writing ability: Toulmin model of argumentation, and flipped learning.

In the pretest, the students had difficulties with logic of their ideas, and with providing relevant evidence and warrant as well as predicting rebuttal. They could provide claim, but did not clearly choose a position. Many times their evidence used to support the claim was not related, and the rebuttal was not presented. It is consistent with what McCann (1989) and Knudson (1992) found from their study that the most problematic aspects of argumentative writing that students expressed were including warranting arguments, providing convincing evidence, and responding to opposing viewpoints.

However, after the implementation of writing instruction based on Toulmin model in flipped learning environment, there was a great improvement of the students' argumentative writing ability in terms of arguments. They wrote strong claims, provided more effective supporting evidence, wrote good warrants, as well as provided a rebuttal. It could be seen that the use of Toulmin model could enhance students' argumentative writing ability in terms of constructing effective arguments in a logical way. The students could clearly choose a position on a topic. In addition, Toulmin model guided them to evaluate their evidence. Therefore when they provided evidence, the evidence was more related, credible and sufficient. Additionally, because of Toulmin model, they could write explicit warrant; in other words, they could clarify reasons for using the evidence. It was very helpful when writing arguments since they could check the relevance of the evidence and the claim and it

made their writing logical. The issue coincided with what Lunsford (2002) concluded in his study. He argued that Toulmin model is not only useful to evaluate arguments in a writing piece, but it is also “an effective tool for writing instruction” (p.159). With Toulmin model, the students learned elements of arguments and tried to construct their arguments based on the model. It was beneficial for them to keep focusing on their topic and avoiding going out of a topic as well. Furthermore, in this study, after the students finished first draft, they used the model to check the effectiveness of their arguments and to revise their writing pieces. Toulmin model focused on process-based instruction, instead of eliciting product-based writing instruction. As a result, it encouraged writers to develop their writing skills through multiple drafts (Wilson, 2014).

Besides Toulmin model, the class was conducted in flipped learning environment. With flipped learning, the students said that they were exposed to the prior contents via lectured videos. With the preparation beforehand, they participated in activities provided by the teacher in class more effectively. They learned Toulmin model with examples from the videos. They watched the videos as many times as they preferred and they also prepared questions to ask the teacher in class. After watching the videos, they did assignments to check their understanding and prepare for in-class writing practice. When the direct instruction was moved out, class time was available for writing and feedback. In class, the students had more time to practice writing and revise their essay. They could ask the teacher whenever they had questions or needed helps. As a result, the students practiced more writing with suggestions of the teacher and they showed the improvement in writing skills. The findings of the study was supported by other research in the past which indicated some improvement of students performance when learning in flipped environment (Bate & Galloway, 2012; Mason, Shuman, & Cook, 2013; Schwankl, 2013). Bate and Galloway’s study (2012) implemented flipped learning in a physic class and the result suggested that there was a significant increase in student knowledge. Mason, Shuman, and Cook (2013) investigated the effects of the flipped learning model in an advanced engineering course in college level and found that the student performance, if not better, was at least as well as the traditional teaching method. Furthermore, Schwankl (2013)

conducted the study in two sections of Integrated II mathematics classes. One section was taught by using traditional method, while the other section was a flipped classroom, and the result indicated that the students who received flipped learning instructional method got higher scores in all tests.

In respect to the results of the present study and the previous study, it can be concluded that the improvement of the students' argumentative writing ability resulted from the effectiveness of writing instruction based on Toulmin model in flipped environment. It is known that argumentative writing is the most difficult genre since it requires students to make a clear position and support their arguments. A clear model and enough practice are the essential elements that lead to succeed in the development of argumentative writing ability. Toulmin model of argumentation is one effective model for practice writing arguments. It could be confirm by many researchers who used Toulmin model in their writing class (Varghese & Abraham, 1998; Yeh 1998; Oi, 2005). Furthermore, according to the findings of this study, when Toulmin model was implemented in a flipped classroom, the effectiveness of the writing instruction was increased. As Crowhurst (1991) stated, for the writing instruction to be effective in order to develop writing ability, a clear model together with practices were key factors. In other words, model alone without practice, either writing or reading argumentative text, might not successfully improve students' writing ability as well as a model with practice.

2. Students' perceptions of the writing instruction

The results of the study showed that the students reflected positive perception of the writing instruction based on Toulmin model in flipped learning environment. The discussion of the findings from the questionnaire and the interview was presented in three aspects: the students' perception of the writing instruction based on Toulmin model in flipped learning environment, the students' perception of using Toulmin model in writing, and the students' perception of learning in flipped environment.

2.1 The students' perception of the writing instruction based on Toulmin model in flipped learning environment

The result revealed that the students had positive perception of the writing instruction based on Toulmin model in flipped learning environment. The students reported that they wrote, and received more feedback when they studied in a flipped classroom, compared to a traditional classroom. During doing writing assignments in class, the students could ask the teacher when they had doubts and received immediate feedback and comments. It was different from the traditional classroom where students had to write at home. When they had questions, they did not know who to discuss with. This findings was in accordance with what Cockrum (2014) said. He mentioned that flipped learning benefits all students with different proficiency. With more time available in class, teachers have more time to pay attention to students individually as well as offer them the support, feedback, or suggestions they needed.

Furthermore, the students reported that they had more opportunities to interact with peers and the teacher, and they felt that learning writing in a flipped classroom helped them improve their argumentative writing ability since exposing to the contents prior made them practice better in class. The students' responses could be supported by Jason (2013) who conducted a study about student perceptions of the flipped classroom. He found that the students interacted more with teachers and peers, and they also enjoyed the increase in classroom learning activities. Additionally, the students mentioned that Toulmin model helped them improve their argumentative writing skills because the model could be used to construct effective arguments and check the logic of the arguments. They claimed that they preferred to learn writing class in flipped learning environment and they would like to suggest a flipped classroom to other people. Furthermore, they felt that learning in flipped environment is engaging and they would like to try with other subjects too.

2.2 The students' perception of using Toulmin model in writing

According to the findings from the questionnaire and the interview, the students agreed that Toulmin model of argumentation was useful and it helped them

improve their argumentative writing skills in two aspects. Firstly, they could use the model to construct logical arguments. The model helped them to focus on the writing topic and presented relevant evidence to support the argument logically. The students claimed that Toulmin model was like a guideline for them. When they wrote an argumentative essay, they used the model to reorder their ideas and check the relevance of claim and evidence. The students' responds could be supported by the fact that Toulmin model is useful for students as a heuristic tool to check the logic in their own rough drafts (Locker and Keene, 1983). Secondly, the students felt that Toulmin model helped them to focus on their writing topic since they wrote each element and also checked the relevance of each element. As a result, they were aware of the ideas that they had written.

In terms of elements of Toulmin model, the students agreed the three essential elements of Toulmin model including claim, evidence, and warrant played a vital role when writing arguments, because they made the arguments believable and easier to be understood. The students revealed that, all of three essential elements, warrant was the most difficult part to write. They were confused between evidence and warrant. The findings was accordance with McCann (1989) and Knudson (1992) found from their study that the one of the most problematic elements for students when writing argumentative essays is warrant. In addition, Burkhalter (1995) and Crammond (1998) also mentioned that warranting argument was the greatest source of difficulty when writing arguments. Establishing mutual agreement with audiences about the reasons of choosing this piece of evidence is not easy. For optional elements--qualifier, backing, and rebuttal, the students felt that they were less important than the three essential elements, but among those three optional elements, most students reported that rebuttal was the most important part which played a significant role in making the argument stronger. In terms of perception, some students expressed that they did not like rebuttal because it was difficult to write a good rebuttal. Overall, from all six elements of the model, the majority of students revealed that claim and evidence helped them the most in order to form a sound argument.

However, although some parts of the model were a bit difficult to apply in their writing, the students still felt that Toulmin model of argumentation was easy to

understand. It was consistent with Locker and Keene's (1983), and Hillocks' (2010) study. They claimed that Toulmin model does not require a long period of time to be understood. Instructors can teach the model within 20 minutes and use the model to show the weakness or inadequate logic in students' writing. Furthermore, Yeh (1998) found that Toulmin model was not too complicated for novice writers since it facilitated writers in terms of suggesting goals and procedures for writing a simple argument.

2.3 The students' perception of learning in flipped environment

The findings revealed that the students had positive perception of learning in flipped environment. The students felt that flipped learning was useful in order to improve their writing skills since out of class, they reported that watching the videos helped them prepare for the activities in class as well as helped them to understand the lessons better. They could watch the videos as many times as they wanted for a better understanding. Moreover, the videos could be watched anytime and anywhere as well. In addition, the students thought that the materials used in a flipped session were interesting and engaging. The videos were colorful and the lengths of the videos were not too long. In addition, they thought that Edmodo was new for them, but it was very useful and convenient for their learning since they could submit assignments, ask and answer questions, watch videos, contact the teacher, and read the file online easily. They enjoyed learning in flipped environment because the new technology engaged students. The research result was consistent with the study of Revere and Koach (2011). When technology was used appropriately, it is beneficial for students since it can foster their learning engagement, enhance learning outcomes, and improve student satisfaction.

In class, the students said that they had more time to practice writing, and also receive more feedback when compared to a traditional method. They could ask the teacher immediately when they had questions about their writing. Additionally, they had more opportunities to interact with both peers and the teacher through the activities provided by the teacher which led to an increase in the engagement of their learning. Such findings confirmed what Wiginton (2013) discussed in his research

that the student-centered activities that most teachers used in flipped classrooms could help students increase their engagement, interaction with peers and teachers, and their satisfaction towards learning.

Nevertheless, some students reported some difficulties in learning in flipped environment. They encountered technological problems when trying to access the materials such as the instability of the Internet, or the confusing instruction of using Edmodo. However, the students claimed that these problems went away when they were familiar with accessing the materials. Additionally, some students said that sometimes they did not watch the videos before class. As a result, they could not understand the activities and could not practice well in class. The students' responses could be supported by Bergmann and Waddell (2012). They claimed that flipping learning does not always match learning style of each student. Some students are not good at learning from an instructional video; therefore, students may not watch the videos. Furthermore, when the students watched the videos and they had doubts, they preferred to ask questions at that time, but they could not do it. This issue coincided with what Johnson (2013) stated. He mentioned that during video instruction, students expressed frustration when they could not get immediate responses to their questions.

To sum up, the students viewed flipped learning as an effective way to learn English writing, especially argumentative writing. With flipped learning, the course was more interesting and engaging. It also allowed them to learn from various types of materials such as Edmodo and video clips. Moreover, the students mentioned that they received helps and feedback from the teacher more often, when compared to the traditional classroom and they liked it. They could consult their doubts with the teachers and received an immediate respond. Overall, the result revealed that the students preferred to learn writing class in flipped learning environment. Moreover, they would like to try studying in a flipped classroom in other subjects as well.

Pedagogical Implication

First, based on the result of the study, Toulmin model of argumentation is an effective model for writing argumentative essays. Writing teachers can use it to

develop students' argumentative writing skills. The model divides arguments into parts and teachers can create steps of writing arguments from each part. Once the students learn the model, they will realize how to evaluate the strength of their argument. In addition, they can also use the model to guide them to produce sound arguments with strong claims, as well as effective evidence and warrant. For these reasons, Toulmin model is suggested for teachers to apply it in argumentative writing courses.

Second, the study provides a practical method to change the ordinary way of teaching writing in the classroom with technology. In this 21st century, the majority of students are digital citizens. They have grown up with technology. Therefore, it is one great idea to incorporate technology in a course so that students will be more engaged and interested in the lessons. As in this study, Edmodo and lecture videos were used. The students reflected that they enjoyed learning with new methodology as well as enjoy using technology. Using lectured videos benefit students with different proficiency. It is convenient for both students and teachers since the teachers do not have to repeat teaching the lessons again, as well as the students can pause, rewind, fast-forward, or review the material as many times as they need for their better understanding. Therefore, incorporating technology in class is one great idea.

Finally, teachers can redesign their course and maximize class time usage in order to improve students' argumentative writing ability by implementing flipped learning to writing classroom. Since flipped learning moved direct instruction outside and allows more time for practice in class. For writing teachers, more time allotted in class means that they could pay more attention to students individually, especially for the one who needs help. Teachers can spend time giving feedback, suggestions, and comments while students are writing. In addition, by letting students write in class, teachers can also check that the students truly write on their own. However, not only in writing class, flipped learning can be implemented in other classes too. With flipped learning, the class will be student-centered and teachers can provide various activities to help students bring knowledge into real practice more effectively.

Recommendations for Future Research

The following are some areas that could be investigated for future research, according to the findings of this study.

First, this study focused on the effects of writing instruction based on Toulmin model in flipped learning environment on undergraduate students' argumentative writing ability. The future research could be conducted to investigate effects of the writing instruction on argumentative writing ability and perceptions of students in different level such as secondary school students. In addition, to confirm the effectiveness of the treatment, the future research could be conducted with students from different province.

Second, this study employed a quasi-experimental with one-group pretest-posttest design. Further study could add more groups to compare the results of the effects of the treatment for better understanding about the impact of the writing instruction on students' writing skills; for example, they could have treatment and control groups. The control group receives traditional methods in learning writing, while the treatment group receives the writing instruction in flipped learning environment.

Finally, the current study used the opinion questionnaire and semi-structure interview to explore students' perception of the writing instruction. To investigate students' perception of the instruction more profoundly, the other types of instruments, such as student logs and classroom observation could be employed for further study.

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APPENDIX



จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

Part 2: Perception of the learning experience in a flipped classroom

Please rate each item on the scale provided to indicate your agreement

Statement	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
1. The Flipped classroom is more engaging than traditional classroom instruction.				
2. The Flipped classroom gives me greater opportunities to communicate with other students in class.				
3. I have more interactions with the instructor.				
4. I like watching the lessons on video.				
5. I would rather watch a traditional teacher led lessons than a lesson video.				
6. I can access to the online materials without difficulties.				
7. Availability and accessibility of the learning materials help me improve my learning				
8. I write more in flipped learning environment when compared to a traditional classroom.				
9. I spend less time working on traditional writing homework.				

Statement	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
10. I am more motivated to learn English in the Flipped Classroom.				
11. Toulmin model helps me to construct effective arguments.				
12. I write an argumentative essay better when using Toulmin model.				
13. I prefer to use Toulmin model when writing argumentative essays.				
14. Toulmin model is easy to be understood.				
15. I feel Toulmin model is easy to be applied in writing.				
16. Writing instruction based on Toulmin model in a flipped classroom helps me improve my writing ability.				
17. I prefer to learn writing in flipped learning environment.				
18. I can get feedback from my peers and teachers in flipped environment more than a traditional classroom.				
19. I would like to study in a flipped classroom in other subjects too.				
20. I would like to introduce my friend to a flipped classroom.				

Appendix B
Semi-structure Interview Questions

1. Do you think Toulmin model help you improve your argumentative writing ability? If yes, how?
2. Do you think flipped learning helps you improve your English writing skill more than a traditional way? If yes, how? If not, what difficulties did you experience in the course?



Appendix C

Pretest and Posttest

Direction: Choose one topic from the following writing prompts and write a five-paragraph argumentative essay (250 - 300 words) with 3 reasons to support your position.

Time allocation: 90 minutes

□ In a university, there are various clubs that students can join based on their interest such as sport clubs, technology clubs, drama clubs, or singing clubs. Many students are interested and join the club; however, some aren't. Should every student be required to join a club in a university? State your position and support it with specific reasons and examples.

□ Technology is supposed to make us more connected. We can stay in touch with our friends all the time on Facebook, Twitter and Instagram. However, sometimes our smartphones can get in the way of real socializing and make us more alone. Could technology be making us more alone? State your position and provide specific reasons and examples to support your response

Appendix D

Toulmin Argumentative Essay Rubric

Adapted from (Krieger-James, 2012)

INTRODUCTION	3 Points	2 Points	1 Point	YOUR POINTS
Background			Background is presented	/1
<i>THESIS</i> – Precise and arguable	Excellent Thesis	Sufficient Thesis	Weak Thesis	/3
Listing, parallel reasons (a list of reasons or a summary of reasons is presented.)			Listing, parallel reasons	/1
<i>QUALIFIER</i>			Qualifier is presented	/1
BODY Paragraph #1				
<i>CLAIM</i> of body paragraph 1 ties to the first reason listed in thesis			The claim ties to first reason	/1
<i>GROUND/DATA/EVIDENCE</i> and explication to prove your claim	Excellent Grounds	Sufficient Grounds	Weak Grounds	/3
<i>WARRANTS</i> are clear (it can be implicit, but has to be clear for the reader)			Warrants are clear	/1
Transition			Appropriate transition is given	/1
BODY Paragraph #2				
<i>CLAIM</i> of body paragraph 2 ties to the second reason listed in thesis			The claim ties to second reason	/1
<i>GROUND/DATA/EVIDENCE</i> and explication to prove your claim	Excellent Grounds	Sufficient Grounds	Weak Grounds	/3
<i>WARRANTS</i> are clear (it can be implicit, but has to be clear for the reader)			Warrants are clear	/1
Transition			Appropriate transition is given	/1
BODY Paragraph #3				
<i>CLAIM</i> of body paragraph 3 ties to the third reason listed			The claim ties to third reason	

in thesis				/1
<i>GROUND/DATA/EVIDENCE</i> and explication to prove your claim	Excellent Grounds	Sufficient Grounds	Weak Grounds	/3
<i>WARRANTS</i> are clear (it can be implicit, but has to be clear for the reader)			Warrants are clear	/1
Transition			Appropriate transition is given	/1
<i>Rebuttal</i> (counterargument)			Counter-argument is presented	/1
Conclusion			Conclusion	/1
			Argument SCORE	/26

Conventions Score	5 Points	3 Points	1 Points
	There are noticeable, but minor errors that do not obscure meaning. The essay is readable, but lacks close attention to conventions. Basics (e.g., periods, caps, simple spelling) are sufficient. There are only minor errors on difficult spelling, usage, punctuation, etc.	The paper contains noticeable errors which distract the reader from the content. These errors are numerous but do not affect the meaning of the whole paper.	The paper contains noticeable, frequent, and distracting errors. These errors are numerous and affect the meaning of the paper
		Total Conventions Score	/5
Add Your Two Scores	Argument Score (___/26)	Conventions Score (___/5)	Your Total Score (___/31)

Additional comments:

Appendix E

Lists of Experts Validating the Instruments

A: Experts Validating the Unit Plan

1. Dr. Denchai Prabjandee
Faculty of Education, Burapha University
2. Dr. Ruedeerath Chusanachoti
Faculty of Education, Chulalongkorn University
3. Asst. Prof. Dr. Surasak Khamkhong
Faculty of Humanities and Social Sciences, Mahasarakham University

B: Experts Validating the Writing Test

1. Asst. Prof. Dr. Supong Tangkiengsirisin
Head of Testing Services Language Institute, Thammasat University
2. Dr. Pramarn Subphadoongchone
Chulalongkorn University Language Institute, Chulalongkorn University
3. Asst. Prof. Dr. Surasak Khamkhong
Faculty of Humanities and Social Sciences, Mahasarakham University

C: Experts Validating the Questionnaire and the interview questions

1. Ms. Thanida Sreepatchim
Faculty of Humanities and Social Sciences, Mahasarakham University

Appendix F
The lesson plan outline

Meeting	Contents	Activities		Remarks
		Flipped session	In-class session	
Week 1	Pretest and orientation		- Pretest, introduction to the course and class policies	
Week 2	Introduction to Argumentative writing I	- Watch the lectured videos and read other materials - Do an online assignment	- feedback, Q&A from the flipped session and from pretest - group discussion about the video - Writing an argumentative paragraph with suggestions from the teachers	<i>“What do you think about censorship? Should the government censor television and other media??”</i>
Week 3	Introduction to Argumentative writing II	- Watch the lectured videos and read other materials - Do an online assignment	- feedback, Q&A from the students’ writing (w.2) and the flipped session - group discussion about the video - brainstorm ideas for writing the first argumentative essay’s outline - writing an outline and introduction paragraph with suggestions from the teachers	<i>“Are social networks threatening our security and putting our lives in danger?”</i> - write an outline and introduction paragraph of the essay 1
Week 4	Toulmin model of argumentation I: Claim, Evidence, and Warrant	- Watch the lectured videos and read other materials - Do an online assignment	- feedback, Q&A from the students’ writing (w.3) and the flipped session - analyze claim, evidence, and warrant from advertisement and videos - check claim, evidence, and warrant of their outline and write two body paragraphs with suggestions from the teachers	- Write two body paragraphs of the essay 1
Week 5	Toulmin model of argumentation	- Watch the lectured videos and read other	- feedback, Q&A from the students’ writing (w.4) and the flipped	- Write a counterargument paragraph

	II: Qualifier, Backing, and Rebuttal	materials - Do an online assignment	session - revise body paragraphs (add qualifier, backing, and rebuttal) - write a counterargument paragraph with suggestions from the teachers	
Week 6	Toulmin model of argumentation III	- Watch the lectured videos and read other materials - Do an online assignment	- feedback, Q&A from the students' writing and the flipped session - write a conclusion, revise, and submit argumentative essay 1 - identify Toulmin elements from the article "You know virtual me, not me",	- Write a conclusion, revise and submit argumentative essay 1
Week 7	Writing workshop	- Watch the lectured videos and read other materials - Do an online assignment: think of their second topic based on education and university life theme	- feedback, Q&A from the students' writing and the flipped session - write an outline and first draft of argumentative essay 2 with suggestions from the teachers	<i>Write a second argumentative essay based on Education and University life theme</i>
Week 8	Writing workshop	- Watch the lectured videos and read other materials - prepare for revising their argumentative essay 2	- feedback, Q&A from the students' writing and the flipped session - revise and submit argumentative essay 2	- Revise and submit argumentative essay 2 - Prepare for presentation next week
Week 9	Presentation of your best work	- Read the guideline of presentation - Prepare for presentation	- feedback, Q&A from the flipped session - present their best writing and do peer-feedback - summary and review	- Presentation
Week 10	Posttest, questionnaire, and interview		Posttest, questionnaire, and interview	

Appendix G

The example of a unit plan

UNIT 2: TOULMIN MODEL OF ARGUMENTATION

Unit Title: Toulmin model of argumentation

Audience: 20 English major seniors who enrolled in Expository and Argumentative Writing course

Unit Length: 4 weeks— for each week, at least 20 minutes at home (including watching videos and doing online exercise) and one class period (2 hours)

Unit Objectives: Students should be able to:

1. write an argumentative essay in an organized way
2. differentiate each element of Toulmin model
3. identify six elements of Toulmin model in arguments
4. write an argumentative essay about the influence of social media by using Toulmin model of argumentation.

Week 4– Claim, Evidence, and Warrant

Teaching Objectives: Students should be able to:

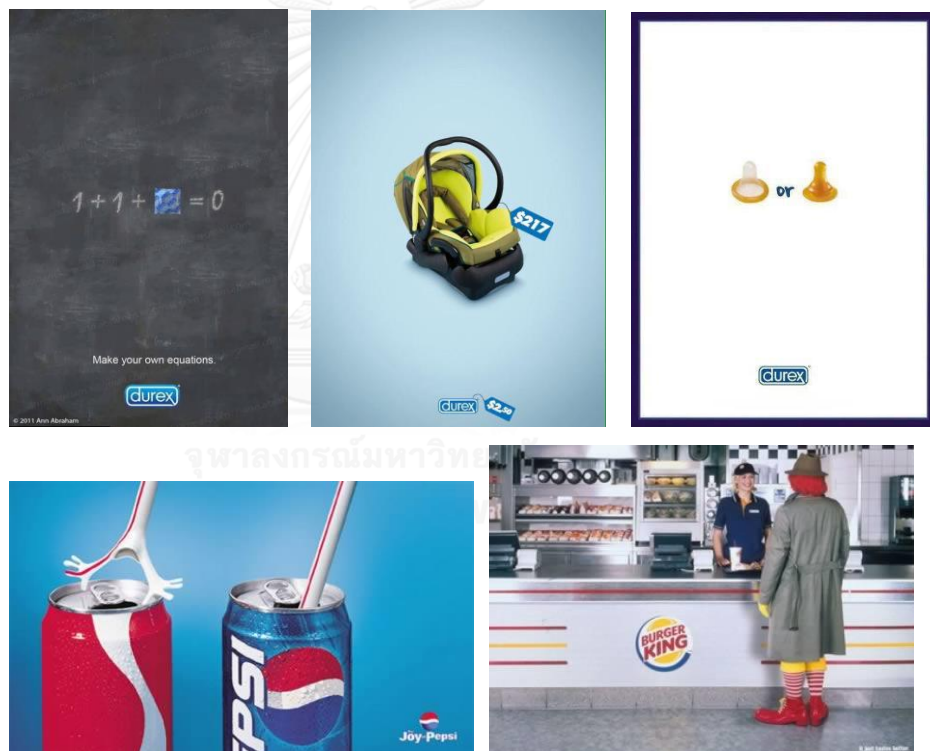
1. differentiate three elements of Toulmin model including claim, evidence, and warrant
2. identify three elements of Toulmin model in arguments (claim, evidence, and warrant)
3. write body paragraphs of an argumentative essay from the outline with the presence of three elements of Toulmin model

Time allotment: at least 20 minutes at home (including watching videos and doing exercise) and one class period (2 hours)

Media and Materials:

1. The lectured video about Toulmin model of argumentation, and the essential three elements of the model
2. The PDF file related to how to write body paragraphs for an argumentative essay.

3. Online assignment: Identify claim, evidence, and warrant from the video “Don’t I know you?”
4. The video “‘Don't I know you?' Social media privacy experiment tricks The Drum Live delegates”. The video attempts to show the dangers of using social media. The speaker in the video tried to convince other people that they are old friends by using information obtained from social network.
5. The video “Internet Privacy Prank” The video shows that private information can be obtained from social media easily.
6. Sample advertisements for students to analyze claim, evidence, and warrant



Student learning resources in Flipped session:

- Instructional Videos:
 - The introduction of Toulmin model
 - The video briefly explains what an argument is, what Toulmin model of argumentation is and it also introduces six elements of the model.
 - The essential three elements of the model (C, E, W)

The video explains the essential three elements of every argument: claim, evidence, and warrant.

- The PDF file related to how to write body paragraphs for an argumentative essay. The contents are including the characteristics of a good body paragraph, the steps to write a body paragraphs, and Toulmin model of argumentation with examples.

Assessment:

- An online assignment and discussion are used to check students' attendance and comprehension about the contents in the videos.
- The class activities of body paragraph writing will be used to check students' understanding of writing argumentative essay's body paragraph with the presence of claim, evidence, and warrant.

Procedures:

<u>FLIPPED SESSION (OUT OF CLASS)</u>	
	<ol style="list-style-type: none"> 1. A teacher post flipped learning materials including a lectured video "The introduction of Toulmin model", "The essential three elements of the model (C, E, W)" and the PDF file related to writing a body paragraph on the Edmodo group and students are required to watch the videos and read the file before coming to class. 2. After that they are required to do the online assignment which the teacher has posted on Edmodo in order to check their participation and comprehension. 3. Then the students will prepare comments and questions about what they have watched to discuss in class.
<u>TIME</u>	<u>IN-CLASS SESSION</u>
15 mins	<p><i>Week 4 – Claim, Evidence, and Warrant</i></p> <ol style="list-style-type: none"> 1. The teacher provides feedback for students' writing pieces (introduction part) from the previous class. 2. The teacher shows the best writing piece and asks the

15 mins	<p>students to discuss the characteristics of a good introduction paragraph.</p> <p>3. The teacher asks students to discuss about the lectured videos they have watched, and the quiz. Then the teacher asks them to brainstorm to answer the questions which they have posted on Edmodo.</p>
30 mins	<p>4. Each group shares their answers and ideas. If there are some points that students cannot answer, the teacher will explain it.</p> <p>5. The teacher shows the advertisements and videos to students and asks them to analyze claim, evidence, and warrant.</p> <p>6. Then the teacher reminds students of the writing prompt “<i>Are social networks threatening our security and putting our lives in danger?</i>”, their introduction paragraph and the outline that they have written from the last week, and this week, they are going to write two body paragraphs.</p>
60 mins	<p>7. The students edit their outline (revise claims, add more evidence, and explain warrants) and then write two body paragraphs which contain three elements of Toulmin model of argumentation.</p> <p>8. The teacher walks around and gives suggestions while the students are writing. Then the students revise and submit their writing to the teacher.</p>

Week 5– Qualifier, Backing, and Rebuttal

Teaching Objectives: Students should be able to:

1. differentiate three elements of Toulmin model including qualifier, backing, and rebuttal
2. identify three elements of Toulmin model in arguments (qualifier, backing, and rebuttal)
3. write a counterargument paragraph for the essay

Time allotment: at least 20 minutes at home (including watching videos and doing exercise) and one class period (2 hours)

Media and Materials:

1. The lectured video about the other three elements of Toulmin model (qualifier, backing, and rebuttal), and how to write a counter argument
2. The PDF file related to writing a counterargument paragraph
3. Online assignment
4. The students' piece of writing (introduction and body paragraphs)

Student learning resources in Flipped session:

- The other three elements of Toulmin model (Q, B, R)
The video explains the other three optional elements of argument: qualifier, backing, and rebuttal.
- The PDF file related to how to write a counterargument paragraphs for an argumentative essay.

Assessment:

- An online assignment and discussion are used to check students' attendance and comprehension about the content in the videos.
- The class activities of revising body paragraph and writing a counter argument will be used to check students' understanding of writing a counter argument and writing an argumentative essay's with the presence of qualifier, backing, and rebuttal.

Procedures:

FLIPPED SESSION (OUT OF CLASS)

1. A teacher post flipped learning materials including a lectured video "The other three elements of Toulmin model (Q, B, R)" and the PDF file related to how to write a counterargument paragraphs on the Edmodo group and students are required to watch the videos and read the file before coming to class.
2. After that they are required to do the online assignment which the teacher has

<p>posted on Edmodo in order to check their participation and comprehension.</p> <p>3. Then the students will prepare comments and questions about what they have watched to discuss in class.</p>	
<u>TIME</u>	<u>IN-CLASS SESSION</u>
15 mins	<p><i>Week 5– Qualifier, Backing, and Rebuttal</i></p> <ol style="list-style-type: none"> 1. The teacher provides feedback for students’ writing pieces (body paragraphs) from the previous class. 2. The teacher shows the best writing piece and asks the students to discuss why it is good. 3. The teacher asks students to discuss about the videos they have watched, and the assignment. Then the teacher asks them to brainstorm to answer the questions which they have posted on Edmodo. 4. Each group shares their answers and ideas. If there are some points that students cannot answer, the teacher will explain it. 5. The teacher provides students their own papers which they have already written introduction and two body paragraphs. The students will read their writing and add QBR to their argumentative essay as well as write a counter argument paragraph. 6. While the students are writing, the teacher walks around giving feedback and suggestions. 7. The students will edit and revise their essay. Then the students revise and submit their writing to the teacher.
15 mins	
60 mins	
30 mins	

Week 6– Six elements of Toulmin model

Teaching Objectives: Students should be able to:

1. write a conclusion for their argumentative essay
2. finish their first argumentative essay

3. use Toulmin model to write an argumentative essay
4. identify all elements of Toulmin model in an argumentative essay

Time allotment: at least 20 minutes at home (including watching videos and doing exercise) and one class period (2 hours)

Media and Materials:

1. The lectured video about how to write a conclusion, and using Toulmin model in writing
2. An argumentative essay “You Know Virtual Me, not Me” for students to analyze elements of Toulmin model
3. Online assignment
4. The students’ piece of writing (introduction and body paragraphs)
5. The PDF file related to how to write a conclusion paragraphs for an argumentative essay.

Student learning resources in Flipped session:

- Using Toulmin model in writing
The video suggests seven steps of using Toulmin model when writing an argumentative essay
- How to write a conclusion
[https://www.youtube.com/watch?v=_WknKWFdUs0]
The video explains the steps of writing conclusion for an argumentative essay.
- The PDF file related to how to write a conclusion paragraphs for an argumentative essay. The content is about steps and tips for writing a conclusion.

Assessment:

- An online assignment and discussion are used to check students’ attendance and comprehension about the content in the videos.

- The class activities of writing a conclusion and analyzing Toulmin’s elements from an example essay are used to check students’ understanding towards the lesson.

Procedures:

<u>FLIPPED SESSION (OUT OF CLASS)</u>	
	<ol style="list-style-type: none"> 1. A teacher post flipped learning materials including lectured videos “Using Toulmin model in writing” and “How to write a conclusion”, and the PDF file on the Edmodo group and students are required to watch the videos and write a short summary before coming to class. 2. After that they are required to do the online assignment which the teacher has posted on Edmodo in order to check their participation and comprehension. 3. Then the students will prepare comments and questions about what they have watched and summarize to discuss in class.
<u>TIME</u>	<u>IN-CLASS SESSION</u>
15 mins	<p><i>Week 6– Six elements of Toulmin model</i></p> <ol style="list-style-type: none"> 1. The teacher provides feedback for students’ writing pieces (the counterargument paragraph) from the previous class. 2. The teacher shows the best writing piece and asks the students to discuss why it is good. 3. The teacher asks students to discuss about the videos they have watched, and the quiz. Then the teacher asks them to brainstorm to answer the questions which they have posted on Edmodo.
15 mins	<ol style="list-style-type: none"> 4. Each group shares their summary, answers, and ideas. If there are some points that students cannot answer, the teacher will explain it. 5. The teacher provides students their own papers which they have already written introduction and three body

50 mins	<p>paragraphs. The students will read their writing and write a conclusion paragraph.</p> <p>6. While the students are writing, the teacher walks around giving feedback and suggestions.</p> <p>7. The students will edit and revise their essay. Then the students revise and submit their writing to the teacher.</p> <p>8. The teacher asks the students to be in groups and provides them an example of the argumentative essay “You know virtual me, not me”.</p>
40 mins	<p>9. Each group reads and analyzes the element of Toulmin as well as strengths and weaknesses of the essay. Then, each group is going to share their analysis with the class. After that the students shares ideas about using Toulmin model for writing arguments.</p>

Week 7– Writing workshop

Teaching Objectives: Students should be able to write a first draft for their second argumentative essay with the presence of all six elements of Toulmin model of argumentation

Time allotment: at least 20 minutes at home (including watching videos and doing exercise) and one class period (2 hours)

Media and Materials:

1. The lectured video about transition words and tips for argumentative writing
2. Online assignment
3. The students’ pieces of writing from previous class
4. An outline sheet

Student learning resources in Flipped session:

- Transition words and tips for argumentative writing

The video suggests some tips and techniques when writing an argumentative essay.

[<https://www.youtube.com/watch?v=VVaoCd-S3Ko>]

Assessment:

- An online assignment and discussion are used to check students' attendance and comprehension about the content in the videos.
- The class activities of writing an outline of the second argumentative essay as well as writing a first draft will be used to check the students' understanding and ability to write an argumentative essay based on Toulmin model of argumentation.

Procedures:

<u>FLIPPED SESSION (OUT OF CLASS)</u>	
<ol style="list-style-type: none"> 1. A teacher post flipped learning materials including a lectured video “Transition words and tips for argumentative writing” on the Edmodo group and students are required to watch the videos, read the article and write their ideas about the arguments in the article before coming to class. 2. After that they are required to do the online quiz which the teacher has posted on Edmodo in order to check their participation and comprehension. 3. Then the students will prepare comments and questions about what they have watched to discuss in class. 	
<u>TIME</u>	<u>IN-CLASS SESSION</u>
15 mins	<p><i>Week 7- Writing workshop</i></p> <ol style="list-style-type: none"> 1. The teacher asks students to discuss about the videos they have watched, and the quiz. Then the teacher asks them to brainstorm to answer the questions which they have posted on Edmodo. 2. Each group shares their answers and ideas. If there are some points that students cannot answer, the teacher will explain

15 mins	it.
30 mins	<ol style="list-style-type: none"> 3. The teacher gives feedback from the assignment and then asks the students about ideas of arguments that they want to write about. 4. Then the students write an outline for their essay from what they have brainstormed.
60 mins	<ol style="list-style-type: none"> 5. When they finish writing the outline, they are going to write a first draft. While the students are writing, the teacher walks around giving feedback and suggestions. 6. After that, the students submit their first draft to the teacher.

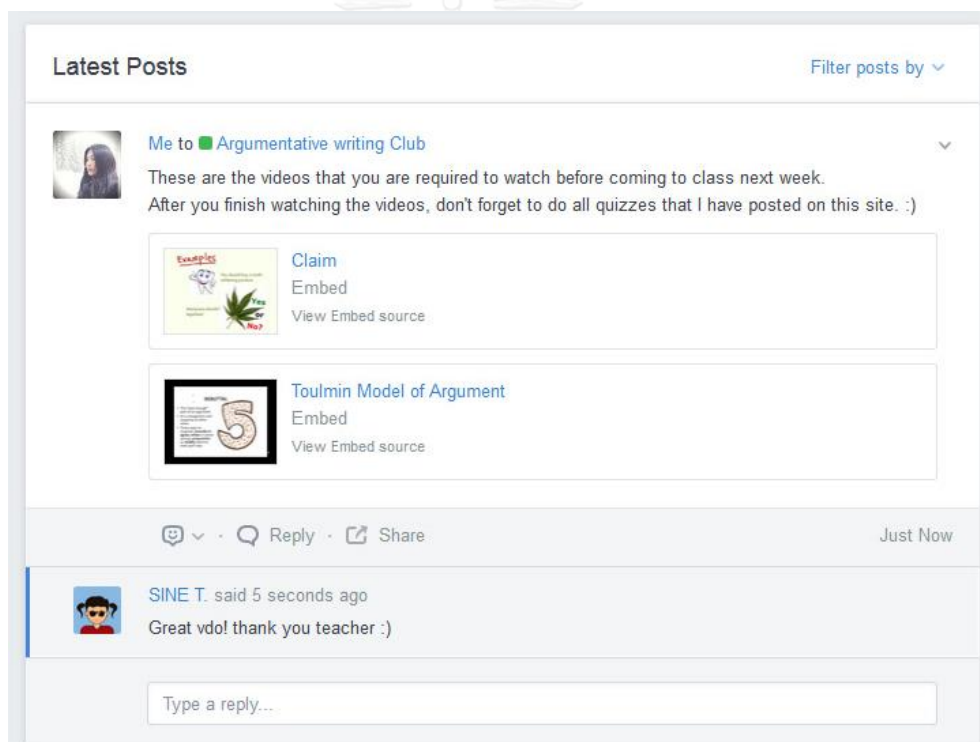


Appendix H

Sample screenshots of Edmodo website

1. When the teacher posts videos

- The teacher can attach many video links in one time. The students can give comments towards the post. In this post, the teacher will ask all students to give a comment towards the videos. They can also click on the emoticon to show their reaction towards the post (in this case the videos). The reactions are including awesome, like it, interesting, challenging, not taught in class, need more time, bored, need help, and lost interest.

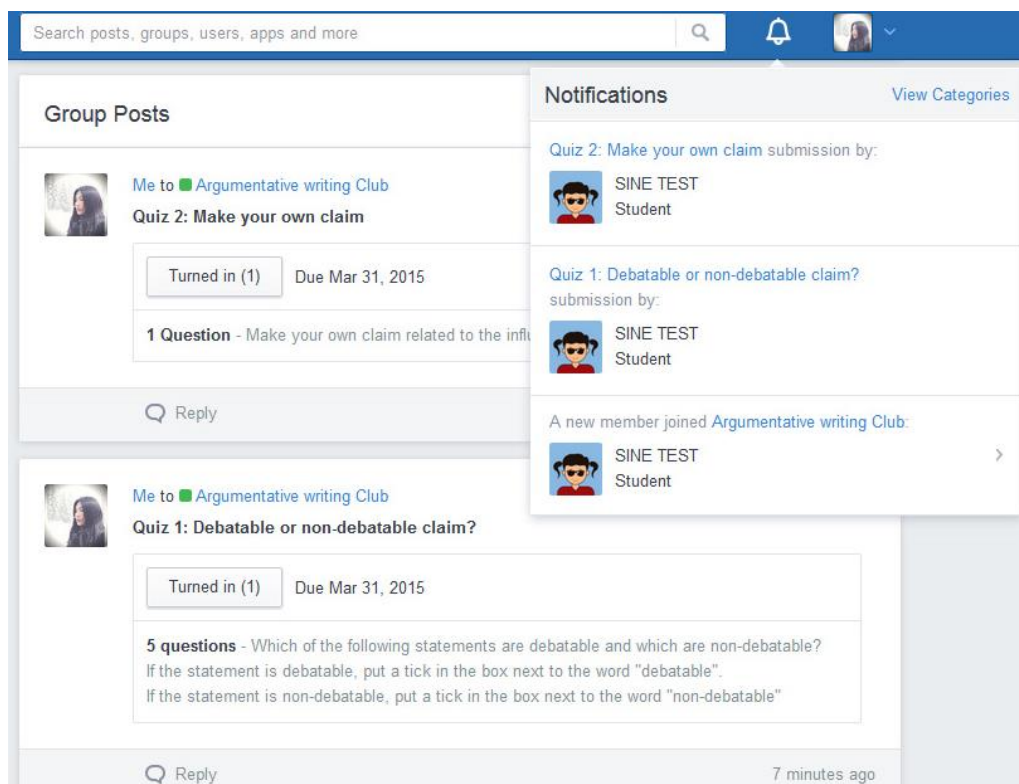


The screenshot shows a social media-style interface for Edmodo. At the top, it says "Latest Posts" with a "Filter posts by" dropdown. The main post is from a user named "Me to Argumentative writing Club". The text of the post reads: "These are the videos that you are required to watch before coming to class next week. After you finish watching the videos, don't forget to do all quizzes that I have posted on this site. :)" Below the text are two video embeds. The first is titled "Claim" and the second is titled "Toulmin Model of Argument". Both have "Embed" and "View Embed source" options. Below the post, there are icons for "Reply" and "Share", and a timestamp "Just Now". A reply from a user named "SINE T." is visible, stating "Great vdo! thank you teacher :)". At the bottom, there is a text input field with the placeholder "Type a reply..."

2. When the teacher gives a quiz

- A quiz can be created in many forms including short answers, multiple choices, true or false, fill in the blank, and matching.
- The teacher must set up the due date, and time limit for the quiz.

- When the students finish the quiz, the teachers will receive a notification which will tell the name of the students who have done the quiz.
- The teacher can check the number of student who have already turned in the quiz as well as check the students' answer too.



(From the teacher's screenshot)

- When the teacher assigns the quiz, the students will receive notification which shows the detail of the quiz and due date.
- The students can click on the notification and take the quiz.
- They can post a comment towards the quiz and check the result or feedback from the teacher too.

Group Posts

Ms. Jantasin to **Argumentative writing Club**

Quiz 2: Make your own claim

Take Quiz Due 31 มีนาคม, 2015

1 Question - Make your own claim related to the influence of media.

Reply 14 seconds ago

Ms. Jantasin to **Argumentative writing Club**

Quiz 1: Debatable or non-debatable claim?

Take Quiz Due 31 มีนาคม, 2015

5 questions - Which of the following statements are debatable and which are non-debatable?
If the statement is debatable, put a tick in the box next to the word "debatable".
If the statement is non-debatable, put a tick in the box next to the word "non-debatable"

Reply 58 seconds ago

Notifications View Categories

Quiz 2: Make your own claim is due in 30 days:

Make your own claim related to the influence of media.

Quiz 1: Debatable or non-debatable claim? is due in 30 days:

Which of the following statements are debatable and which are non-debatable? If the...

(From the student's screenshot)

- o Example of multiple choice quiz มหาวิทยาลัย

Quiz 1: Debatable or non-debatable claim? 59:35 left Submit Quiz

QUESTIONS Question 1 < >

1 2 3 4 5

Question Total: 1 point

Computers and automation increase unemployment.

A debatable

B non-debatable

0/5 questions completed

About this Quiz

Which of the following statements are debatable and which are non-debatable? If the statement is debatable, put a tick in the box next to the word "debatable". If the statement is non-debatable, put a tick in the box next to the word "non-debatable"

Assigned By

Pattaramas Jantasin Teacher

- Example of short answer quiz

Quiz 2: Make your own claim 59:49 left

Submit Quiz

0/1 questions completed

QUESTION 1

Question 1

Question Total: 1 point

Write your own claim related to the topic of "the influence of media".

About this Quiz

Make your own claim related to the influence of media.

Assigned By

Pattaramas Jantasin
Teacher

For short answer quiz, the teacher must check the answer and choose whether it is correct or not. Moreover, the teacher can give feedback for students individually as well.

- Example of identifying elements of Toulmin assignment

Ms. Jantasin to Argumentative writing Club

Identify claim, evidence, and warrant

Turn In Due Mar 31, 2015

Identify claim, evidence, and warrant from the following passage.

Smoking in public places should be banned because it puts other people at risk of breathing smoke from cigarettes. Smoking in public places also endangers people who have respiratory disease. Recent studies show that almost 80% of those people who take secondhand smoke from public smokers have a higher risk of getting respiratory problems than smokers themselves.

Banning an act that causes problems to innocent people is helpful in many ways. If smoking in public places is banned, we actually reduce the danger of putting non-smokers at risk of developing lung and heart problems. Moreover, if we ban smoking in public places, we also stop the smokers from further increasing their chances of getting health problems for themselves.

While it can be said that not all people who smoke in public areas are always causing harm to others, it remains a fact that smoking is a cause of health problems. It is not enough to say that the size of affected people are relatively just a small fraction; plenty or few, one person put at risk is more than enough. It is only the case that smoking in public places, therefore, should be banned. [Show Less](#)

Reply 1 minute ago

Appendix I

Sample screenshots from the lectured videos

(Every video has English subtitle.)



Example of lectured videos: <https://www.youtube.com/watch?v=Sy1n6fWy6rg>,

Appendix J

The example of an outline of argumentative essay

Writing prompt: Are social networks threatening our security and putting our lives in danger?

Introduction

Background: Background information to introduce this issue

Main claim (thesis statement): your position on this issue + summarize of supporting reasons

Body 1 (first supporting point):

Claim: _____

Evidence or reasons: support your claim with facts and specific examples

- i.
- ii.
- iii.

Body 2 (second supporting point):

Claim: _____

Evidence or reasons: support your claim with facts and specific examples

- i.
- ii.
- iii.

Body 3 (Rebuttal):

Rebuttal (counterargument): _____

Refutation: _____

Conclusion:

Appendix K

Samples of students' writing

One of failed causes in Thai education is students do not know their talents and their dream jobs. This is a big problem of Thai education nowadays. So learning only in the classroom is not enough because students learn only theories and lessons. So Thai students should do the activities that encourage them to find their real interests and learn how to work in real environment of their interested field at the same time. The good way to solve this problem is that every student should be required to join a club in a university.

To join the club is effective way to find out the students' interests and encourage their interested skills. The clubs in a university provide materials and facilities that are necessary to learn and practice, such as laboratory, gymnasium, kitchen, swimming pool, etc. Moreover, joining the club is also a great opportunity to learn and practice with the professors who are professional and expert in students' interested fields. When students are in the environment that seems like the real working, it makes them learn how to work in their real lives and ensure them that this is the career that they are going to be.

To participate in a club can help students to spend time with useful activities and avoid them from bad behaviors, namely playing game, betting, drug, alcohol drinking, and so on. There are many activities in the club that offers to students. In addition, joining a club helps students make more friends who have the same interests. So, they will encourage each other to be better because they might spend time together to exchange their ideas and improve their skills, for example publishing club, photographer club, etc.

Joining the club sometimes can make students get the low GPA because some students pay attention to do the activities in the club or what they are interested in more than their lessons or homework in other subjects. So it makes them get a low grade in these subject. Nevertheless, if they can appropriately manage their time, they will get the high GPA and improve their interested skills when joining a club.

To solve the problem mentioned above, every student should be required to join a club in a university because not only joining the club help students to find out their real interests and future jobs, but also improve their skills and avoid them from bad behaviors. If they can manage the time between their interests and other subjects, their working lives will be successful and happy in the future.

Nowadays, technology is supposed to make us more connect. We can stay in touch with our friends all the time on Facebook, Twitter and Instagram. Everybody use technology everyday such as we always use smartphones everywhere and everytime; sometimes, technology can make us more alone or put our lives in danger. Although technology can affect our lives, there are many benefits and it makes our lives easy.

First, technology makes us connect our friends easily. For example, we can connect our friends through smartphones. Although we are not stay together, we can use smartphones to connect each other; it is very easy to connect everyone around the world. Moreover, technology helps us to make new friends from another countries through Facebook or Twitter. We can exchange culture and language with foreign friends easily.

In addition, technology is a source of knowledge because there are everything on internet. For example, we can search information to make our reports on internet because there are many important informations. We do not have spend more time to go to a library because technology can help us to search everything as much as we need. Moreover, we can study lessons through technology such as we can study online through internet. When we have free time, we can take a course that we are interested; it is very easy to study lesson on internet.

However, using technology too much can make us more alone because we do not talk with our family or friends who is on the sides of us. When we use technology, we have to spend more time to use it and we only focus on our smartphones or computer. Moreover, if we use technology without carefullness, it can put our lives in danger such as when we chat with new foreign friends, they may not tell a true information to us. Although using technology has bad sides, it has good sides, too. Therefore, we must us technology carefully. For example, we should spend enough time to use technology in everyday and we should go out to joy activities

with family and friends. In addition, when we chat with new foreign friends, we should chat with the new friends carefully. Do not believe about them completely. We have to chat with the new friend several months or several years before we believe them.

In sum up, technology can make us connect everyone in the world easily, but it can make us more alone and it can put our lives in danger, too. Technology has a good side and bad side; it depend on you to use it in a wrong way or good way. Therefore, everyone should use technology carefully all the time.

VITA

Ms. Pattaramas Jantasin was born on the 19 February, 1991, Maha Sarakham, Thailand. In 2013, she obtained a Bachelor's of Arts majoring in English for International communication (first class honor) from the Faculty of Humanities and Social Sciences, Mahasarakham University. She continued her Master's Degree in English as an International Language, Graduate school, Chulalongkorn University in the year of 2013. She is currently an English lecturer at Mahasarakham University in Maha Sarakham province. She can be reached at pattaramas-j@hotmail.com.

