THE USE OF WEBQLM TO ENHANCE WRITING PERFORMANCE IN ARGUMENTATIVE WRITING

by

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PENGGUNAAN WEBQLM UNTUK MENAMBAHBAIKAN PENCAPAIAN DALAM PENULISAN PENYANGGAHAN

ABSTRAK

Penyelidikan ini menumpukan kepada pembinaan sebuah alat pembelajaran konstruktivis yang berasaskan web dikenali sebagai Modul Pembelajaran WebQuest atau WebQLM. Penyelidikan ini menyelidik kesan-kesan WebQLM terhadap pencapaian penulisan pelajar dalam penulisan penyanggahan serta tahap penglibatan mereka dalam aktiviti-aktiviti WebQLM. WebQLM ini mengandungi empat jenis unit pembelajaran. Penyelidikan ini mengaplikasikan reka bentuk 'mixed methods' atas 68 pelajar Tingkatan Enam Aliran Sastera di sebuah sekolah bandar di Pulau Pinang. Ujian jenis 'Paired-Samples T-Test' telah digunakan untuk menganalisa data kuantitatif yang diperoleh daripada markah 'pre-test' and 'post-test'. Data kualitatif daripada respons tulisan pelajar, pemerhatian dalam kelas, tulisan jurnal penyelidik dan dua sesi temubual jenis berkumpulan telah diimplementasikan untuk menyokong hasil penyelidikan kuantitatif. Hasil penyelidikan ini telah menunjukkan penambahbaikan yang signifikan dalam penulisan penyanggahan pelajar. Hasil penyelidikan kuantitatif telah menunjukkan pelajar-pelajar minat dalam 'short term' WebQuest (SWQ) dan beberapa ciri yang menarik dalam WebQLM. Hasil dapatan kualitatif telah menyokong hasil dapatan kuantitatif dan menunjukkan bahawa pelajar secara generalisasinya telah memberikan respons positif terhadap penggunaan WebQLM dalam pengajaran penulisan penyanggahan. Majoriti pelajar mempunyai motivasi tinggi, bersikap positif serta member kolaborasi dan melibatkan diri secara aktif dalam semua aktiviti WebQLM. Implikasi pengajaran dan pembelajaran penulisan dalam konteks ESL boleh diperoleh daripada hasil-hasil dapatan penyelidikan ini. Penyelidikan ini telah menunjukkan kepentingan pengintegrasian

pembelajaran berasaskan laman web di dalam kelas. Kredibiliti seorang guru dalam instruksi berasaskan web bergantung kepada peranan yang dimainkan oleh guru tersebut di dalam membina, merancah, memudahcara serta memberikan aspirasi kepada pelajar untuk membentuk sebuah persekitaran pembelajaran yang efektif.

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ABSTRACT

This study focused on the development of a constructivist web-based learning tool known as WebQuest Learning Module or WebQLM and investigated the effects of WebQLM on students' writing performance and their level of engagement in all the activities in WebQLM. The designed WebQLM comprises four units of learning. This study employed a mixed methods research design on 68 Form 6 Arts Stream students in an urban school in Penang. The Paired-Samples T-Test was employed to analyze the quantitative data in the form of pre-test and post-test writing scores. Qualitative data obtained from students' written responses, classroom observation, two focused group interviews and the researcher journal entries were used to support the quantitative findings. The findings from this study revealed significant improvement in students' argumentative writing. Likewise, findings also indicated that the majority of the students preferred the short term WebQuest (SWQ) and a few appealing characteristics in WebQLM. Qualitative findings supported the quantitative findings and showed students generally responded positively towards the use of WebQLM in argumentative writing instruction. The majority of the students had high motivation, good work ethics as well as collaboration and they engaged actively in all the activities and tasks in WebQLM. Implications on the teaching and learning of writing in an ESL context can be drawn from the findings. This study has brought to light the importance of integrating web-based learning tasks in the classroom. The credibility of the teacher in a web-based instruction depends very

much on the roles he or she plays in designing, scaffolding, facilitating and aspiring

students towards a better learning culture.

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0   Introduction

In the new information age, many educators, policy makers and even stakeholders are adhering to the new paradigm of education of the 21st century. What is this new paradigm of education of this 21st century? It is what we call the new literacy in instruction or education using networked information and communication technologies in the classrooms. Many schools and institutions in both developed and developing countries have incorporated new technologies in education. In the light of technology-based education, Malaysia also recognizes the critical need to integrate ICT in the teaching and learning of the English language.

According to Fang and Warschauer (2004), in many countries, leaders, teachers and the public believe that success in life will be facilitated through the combination of English language proficiency with skills in information technology. The Malaysian government too has given full support to technology integration and provides schools and institutions with computers, laptops, Internet services and other advanced technologies in education for teachers and learners in various fields. Both English language learning and technology skills development have been emphasized in urban schools as well as schools in many rural areas in the country.

Svensson and Ostlund (2007) claim that many web learning materials presented in the Internet are designed with selected information and even enhanced with multimedia features and interactivity. This empowers students with the

autonomy and opportunity to learn these designed web learning modules at their own pace. Besides, students are provided with the opportunity to be actively involved in their learning process because they can navigate the learning modules any time whenever they want and wherever they are. Mayer (2003) strongly supports teachers using multimedia as an effective tool in teaching and learning because students' visual and verbal forms of expression can be tapped to promote student understanding.

Due to these advantages of multimedia online learning, the Malaysian government is fully supporting teachers and educators to integrate networked information and communication technologies in all Malaysian institutions of higher learning. According to Mat (2000), this calling aims to equip learners with information technology skills, allowing them to be effective future IT workers in the industry. Most educators of higher learning institutions in Malaysia are incorporating Information Communication and Technology (ICT) resources when designing e-learning and web-based application courses for learners (Neo, 2005; Hong, Abang Ekhsan & Zaimuarifuddin, 2005). However, Neo, Neo and Yap (2008) point out that there is still a lack of proper guidelines in designing educational applications. On top of that, there are not many studies conducted on the effects of web designing and web application tools developed for Malaysian students in the classrooms.

According to the statistics given by the U.S. Department of Educational Technology (2004) and Web-based Education Commission (2000), the Internet has become an important context for teaching and learning. It is argued that information gathering is perhaps the most widely used application of the Internet (Hill, Reeves,

Grant, & Wang, 2000). Due to its feature in offering access to an enormous amount and variety of information, the Internet is used as a Web-based learning environment that enables constructivist learning. Hence, students are able to be involved in many authentic activities.

Merriam and Caffarella (1999) state that the success or failure of this online learning or web-based learning depends on the level of interaction occurring within a learning environment. They argue that only through the use of authentic tasks such interaction is ensured to take place effectively. Authentic tasks can foster effective learning transfer because collaboration among students does not only help them to learn the concepts under discussion but also exemplifies how these concepts are used in real-world contexts. One of the effective teaching tools that make good use of the Internet and engage students in authentic tasks or in inquiry based learning (IBL) is WebQuest.

According to Kelly (2000), WebQuest is a teacher-created lesson plan in the form of a simple World Wide Web page with active, preselected Internet links and a specific purpose for students. It is designed in such a way that students are scaffolded through a guided and structured process in either an independent or small group activity. Lessons with guided research, incorporated with problem-solving skills and other applications of basic skills can be created using WebQuest.

In line with the call of the Malaysian government to integrate ICT and networked technologies in education, this study is set up to design a web-based learning module to engage students in learning to the fullest in an authentic

environment in the classroom. This developed WebQuest Learning Module (WebQLM) consists of four units writing lesson**s**, two short WebQuests (SWQ 1 and SWQ 2) and two long WebQuests (LWQ 1 and LWQ 2). This web-based learning module aims to enhance their performance in argumentative writing. Perhaps one may ask why this study focuses on the development of WebQuest and not other web-based learning tools.

The underlying reason for developing a WebQLM (WebQuest Learning Module) is its pedagogical implication that it offers in the teaching and learning of ESL writing. First of all, WebQuest provides a unique opportunity for integrating technology, scaffolding, collaborative learning and constructivism combined for effective writing instructional practices (Sen & Neufeld, 2006). Moreover, it does not only offer a structured inquiry-orientated learning method but also allows students to be actively engaged in tasks that elicit critical thinking as they take advantage of the vast range of information resources provided (Sanders, 2005). Similarly, Zheng et al. (2005) agree that WebQuest is an excellent instructional tool for promoting, scaffolding, collaborative learning and critical thinking skills.

This study investigates the effects of using the designed WebQLM in argumentative writing instruction among Form Six students in an urban school in Penang. Besides the attempt to show the effectiveness of WebQLM in enhancing performance in argumentative writing, the researcher desires to investigate students' perceptions and responses towards the use of this web technology in the ESL classroom.

1.1 Background of the Study

Literacy education or instruction is a challenge for educators and teachers in today's Information Age and global economic competition. Inevitably, the convergence of literacy instruction with the use of networked information and communication technologies in the classrooms around the world has impacted the lives of many students and teachers. The Internet is the most important manifestation of the networked technologies used in reshaping the nature of literacy instruction in preparing children or students for their future. In the context of the global economy in the new millennium, elements such as problem solving, information access, evaluation of information resources and communication will be necessary in the workplace. These aspects will be increasingly important in shaping the nature of literacy instruction in the classroom. Significantly, students as well as individuals in societies will be able to identify, solve problems and communicate the best information accessed to others successfully and effectively at a quick pace (Leu & Kinzer, 2000).

1.1.1 The Emerging New Technologies in Education

The prevalence of personal computers in the 1980s and 1990s has led to the revolution of new literacy or literacies in the 21st century. According to Leu (2000), literacy is rapidly and continuously changing as new technologies for information and communication repeatedly appear and users are continuously crafting or creating new environments for exploring these technologies. Due to the emergence of the Internet as a powerful new technology for information and communication, the definition of literacy has changed. New technologies require new literacies in instruction to take advantage of their potentials (Leu et al., 2004). New literacies are

defined as the skills, strategies, and dispositions necessary to be used and adapted to the changing information and communication technologies (ICTs) that has emerged in this new millennium, influencing many lives. Leu and his colleagues believe that the new literacies allow the Internet and other ICTs to be used to identify fundamental questions, locate and evaluate information, synthesize information to answer questions, and communicate the answers to others.

The emerging new technologies are envisioned to have a greater impact on education; hence, many governments around the world are rapidly implementing public policies to raise the levels of literacy and infuse ICT and technologies into the classrooms (Leu & Kinzer, 2000). For the past few years, significant attention has been paid on technology use to support students in Higher Education (Seale 2002; Seale & Rius-Riu, 2001; Squires et al., 2000). Apart from that, Tan and Wong (2003) believe that these new technologies using the Internet are gradually breaking the barriers of time and space, and therefore, learning has become more accessible and flexible. Inevitably, the crux of the issue is all about how to use these new technologies to provide IT-enriched environments to attain quality learning outcomes. Previous research has suggested that teachers and educators who currently support teaching and learning using the Internet may provide important insights into how new technologies may be used in the classroom effectively (Karchmer, 2000, 2001; Leu, Karchmer, & Leu, 1999).

By reshaping the curricula, students can expand their technological and information literacy as well as make meaning from a variety of texts with teachers' help. As a result, their abilities in using a variety of technologies in acquiring,

evaluating, and organizing information are enhanced. This can be achieved by experiencing the potential of these web technologies to allow teachers to broaden the classroom boundaries and thus enable students to experience a more authentic literacy environment. With these new technologies being made available for students to explore, the learning process can be expanded effectively in a global network. Nevertheless, it is of great importance that teachers gather and assess technologies first for better quality learning outcomes. In other words, teachers need to include the curriculum, students' needs, and the community in their instructional goals and objectives or pedagogical practice before integrating web resources to scaffold students to construct, represent, and communicate their knowledge (Smolin & Lawless, 2003).

Although some may argue that using new web technologies does not always enhance or improve learning, research has shown that it can create more interest in learning for students (Lowther, Ross, & Morrison, 2001; Sharma 2005). The benefit of using Internet technology is never in doubt as it can be used to support a meaningful learning environment (Ashburn & Floden, 2006) and this is in accordance with Schlechty's (2002) assertion that meaningful learning using technology allows students to engage in authentic tasks. This enables students to work with many multifaceted challenges and problems encountered outside the classroom.

Hence, online learning or participating in web-based learning such as WebQuest engages students in authentic tasks through more meaningful discoveries and connects their personal experiences to the real-world issues, current problems

and even with the content to be learned. As claimed by McTighe, Seif and Wiggins (2004), students are allowed to learn through a process of active inquiry by compelling them to become deeply engaged in challenging content as they collaboratively develop their own investigative questions. They do not only acquire information or knowledge but also analyze, evaluate and manipulate information addressing those questions. Thus, they make interpretations and claims supported by evidence and reasoning in this kind of learning process.

Today, we have the most current web technology in this millennium, which is the Web 2.0 technology. Web 2.0 technologies such as blogs, social networks and resource sharing are innovations of technologies built as a platform and a space for users to upload content and share with others. These technologies are changing the way people teach or acquire knowledge (Greenhow, Robelia & Hughes, 2009). Dunlap and Lowenthal (2011) stress that the powerful Web 2.0 technologies and tools have the potential to support educators' instructional goals and objectives associated with students' professional preparation and the development of lifelong learning skills and dispositions. They posit that it has the potential to support higher learning and lifelong learning skills. Thus, a web-based learning tool such as WebQuest in the Web 2.0 would support cognitive constructivism and social constructivism which will be discussed further in Chapter Two.

1.1.2 Interactive and Authentic Learning in the Classroom

As we can see today, online literacy affects many people of all ages (Hagood, 2003) and computer technology is being integrated into almost every aspect of learning in higher education, especially in the developed and developing countries.

There are CD-ROMs that come in the textbooks, homework delivered and graded online and tasks as well as assignments designed to be completed cooperatively using emails. Hence, integrating web resources in classroom teaching brings positive learning outcomes compared to traditional classroom materials which alone cannot achieve (Caverly & Peterson, 2000).

Reeves (1998) also notes that web resources are capable of providing rich, real language input through interactive hypermedia functions. This suggests that facilitating interactive and authentic learning through online or web-based reading and learning supports student-centred learning. Learners are allowed to interact with the text on their own. Bates and Poole (2003) posit that web-based learning environment allows students to explore information at their own pace and make it exceptionally very educationally different in which students' real life situation is simulated. Web-based learning facilitates a student-centred environment, thus enabling students to be involved actively in the process of learning. They engaged in learning more, hence, their understanding of the subject matter is also increased.

Most importantly, learners get to acquire knowledge and learn language through reading from many rich resources made available on the web in an authentic learning environment. In other words, by surfing the Internet and reading on the web they gain more knowledge and information on the language. Therefore, surfing the Internet, skimming and scanning web documents for relevant information, decoding meanings and utilizing the translation programmes will contribute to language learning (Stoks, 2002).

1.1.3 ICT Integration in Education in Malaysia

In Malaysia, the government has envisioned the importance of k-economy and ICT in education that can sustain and boost the country's growth and productivity in the 21st century. In today's globalization era, citizens need to equip themselves with the knowledge and skills in the use of ICT and web technologies (Zaman, 2008). From the UNESCO report (2003) on ICT in education, the Malaysian government has introduced various initiatives to facilitate greater integration of information and communication technology (ICT) to enhance the effectiveness of education and training programmes. This was outlined in the country's ICT Master Plan in 2001 and Vision 2020. Vision 2020 calls for sustained, productivity-driven growth, possible only with a technologically literate, critically thinking workforce, prepared to participate fully in the global economy of the 21st century (Belawati, 2003).

Malaysia has begun introducing the use of electronic technology in the education arena. There were two phases in the initiatives by the Ministry of Education (MOE) from 1985 to 2005. The first phase began between the years 1985 to 1995 while the second phase from 1996 to 2005. According to Zaman (2008), the ICT initiatives were more concentrated in the second phase. Malaysia planned to equip all Malaysian schools with ICT infrastructure and to transform schools into smart schools soon.

The Ministry of Education (MOE) regards the need to integrate ICT into the teaching and learning at all levels of education as a high priority. The government has conducted training that includes pre-service and in-service training of teachers,

training of school administrators and other school staff, fostered the use of electronic books and set up a pilot project on e-learning as part of the smart schools project. Nevertheless, between 1996 and 2000, only 30 per cent of teachers received some form of ICT training, only a small number were able to integrate it into their teaching and few have the expertise to build courseware. Therefore, the number of teachers who incorporate ICT in their lessons to develop interesting and effective teaching and learning remains low. To date, the reasons that hinder the actual use of ICT in classrooms is the lack of teachers' interest and capability to integrate ICT-related skills learned into teaching practices (Belawati, 2003)

Although the Malaysian government has concentrated its efforts to enhance the use of ICT in schools, the impact of it on the actual practice of teaching and learning has not yet been significant. It is still a challenge for the MOE to encourage teachers to embrace the change of traditional methods of instructions to incorporate ICT in the classrooms (Belawati, 2003).

1.2   Statement of the Problem

Malaysian ESL teachers, educators and the Ministry of Education (MOE) are concerned over the issue of writing abilities among Malaysian students. The level of English Language standard among Malaysian students has been found to be deteriorating over the years. From the 2010 School Certificate Examination Report on English Language Paper 1, it has been revealed that the majority of the candidates is still weak and they have yet to master the writing skills in English. Overall, candidates did not fare well and the majority scored below the median while only a

handful achieved the top range of marks. Some candidates did not even attempt the essay question (Laporan Prestasi SPM, 2010).

Besides, many MUET students in Form Six and higher institutions have still not acquired the skills to write effectively, especially in argumentative writing. From the research done by the Malaysian Examination Council (MPM Report, 2009), many students are found to be weak in writing argumentative essays in the MUET Writing Paper. Most shockingly, from the MPM MUET Report for End-Year 2010, out of 98,662 candidates from schools and institutions only 66.77% and 6.46% obtain below and above Band 3 respectively. The performance of candidates for writing paper 800/4, according to bands is as follows:

Table 1.1

MPM Report: MUET End-Year 2010 Result

Band	800/4 (Writing)
	Percentage (%)
6	0.01
5	0.76
4	5.69
3	26.77
2	49.17
1	17.60

Many ESL or MUET teachers face challenges in teaching writing in the L2 classroom because writing skill is considered to be the most difficult skill to acquire and teach. Chan (2007) stresses that writing is not an easy skill to acquire because it does not only involve words but correct grammatical forms put together. Second language students have to learn not only the complex skills involved but how to write

under time stress. Evidently, teaching writing to L2 students who have low or intermediate proficiencies in the language is even more difficult.

Besides, second language students do not acquire enough vocabulary to write effectively because they do not read enough. According to Pitcher et al. (2007), adolescents tend to read less frequently as they enter the teen years and reading is often not their preference. Moreover, Hiew (2010) notes that students with low and average English proficiency experience writing difficulty because they lack vocabulary knowledge, ideas, reading and practice in writing which impede their writing fluency. This problem is conspicuous when students attempt to produce a text during essay writing sessions or examinations and their essays are usually short and lacklustre.

It is undeniable that reading for information and knowledge from many resources can help students to acquire enough vocabulary and input to write well. Krashen (1984) stresses that the ultimate way for learners to learn how to write well is by acquiring ample rich and comprehensive input from reading. This is because reading and writing are connected together and therefore extensive reading provides knowledge and input for students to write effectively. Chuo (2007) argues that the Web is the only source which is capable of providing such a wealth of easily accessible reading materials for writing input in reading or writing instruction. Web-based learning has the aim of motivating students and appealing to their affective domain with creative and innovative activities which are interesting and meaningful through reading and writing instruction. In this regard, the researcher believes that

web-based learning tools can support effective teaching as well as learning in any reading and writing instruction.

Perhaps, the greatest challenge for the researcher is to create or design a task-based learning tool tailored specifically to enhance performance in argumentative writing among Form Six students. Hence, in this study, WebQLM is designed with problem-based learning activities to engage students in learning and to enhance performance in argumentative writing. Evaluation on this WebQLM through students' responses towards its use in the classroom will provide a better view and understanding to improve the module or design other similar modules for reading and writing instruction.

Answers to the question of '*Is there any significant difference in students' argumentative writing performance before and after using WebQLM?*', '*Which characteristics of WebQLM appeal to the students?*' and '*How do students respond to the use of WebQLM in argumentative writing in the ESL classroom?*' are significant for the future development of collaborative web-based learning in writing as well as reading instruction in the ESL classroom.

1.3   Purpose of the Study

The aim of this study was to design the WebQuest Learning Module (WebQLM) on argumentative writing for Form Six ESL students and then investigate the effectiveness of this designed module on students' writing performance. The researcher intended to examine the effectiveness of the designed WebQLM from the quantitative data collected from the pretest and posttest.

The researcher also intended to identify the characteristics or features of the WebQLM that were appealing; hence motivating and engaging students to learn. From the information and data gathered from the questionnaire, students' opinion or attitude towards the features and usability of the designed WebQLM was examined. Besides, this study also had its objective to find out which of the designed WebQuests in WebQLM, that is short term WebQuest (SWQ) and long term WebQuest (LWQ), was viewed more favourably by these ESL students. Finally the study sought to examine students' behaviour, and attitude towards the use of this web technology in the ESL writing instruction.

The research objectives of this study are as listed below:

1. to investigate the effectiveness of WebQLM on students' argumentative writing performance

2. to identify the characteristics or features of WebQLM that appeal to the students

3. to find out which type of the WebQuest in WebQLM module is more favourable to the students

4. to investigate students' responses towards the use of WebQLM in the ESL classroom

1.4 Research Questions

The research questions that guided the study are:

RQ1: Is there any significant difference in students' argumentative writing performance before and after using WebQLM?

RQ2: Which characteristics of WebQLM appeal to the students?

RQ3: Between the short and long term WebQuest in WebQLM (SWQ and

LWQ), which type is more favourable to the students and why?

RQ4: How do students respond to the use of WebQLM in argumentative

writing in the ESL classroom?

Research Hypothesis

The research hypothesis related to Research Question 1 is:

H_{01} :   There is no significant difference between the pre-test and post-

test scores in argumentative writing.

1.6   Significance of the Study

The study of integrating designed web technologies such as WebQLM in the ESL writing classrooms can be a new methodology to enhance students' performance. and engagement in the classroom. From the data analysis, the researcher will be able to see the effectiveness of WebQLM as a web-based learning module in the teaching and learning of a second language, in particular writing, among the selected students in the context of collaborative learning. This study will provide useful findings for theory and practice of incorporating the Internet as well as Web 2.0 in reading and writing instruction to engage students in effective language learning. The results of this study also will provide some insights and information about teacher's role in a constructivist learning environment.

This study will also help teachers, educators, instructors and researchers to determine ways to improve the methodologies in the teaching and learning of

argumentative writing by using the designed WebQLM (WebQuest Learning Module) or any self developed online writing tool. Besides, this study will encourage teachers to teach in an online environment in ESL classrooms.

This study is important as it will likely encourage action research among practising teachers to address other larger related issues in teaching ESL writing skills or other skills. The outcome of this study will contribute to the larger field of TESL in the 21st century where the online literacy of learners are given due attention.

1.7   Limitations of the Study

There are a number of limitations in this study. Firstly, in this mixed methods design, a single group pre-test-post-test is used to investigate the effects of WebQLM on two intact classes of Lower Form Six students. Although there is no control group, the researcher ensures equivalences by controlling some of the threats to validity such as using the same teacher participant, instruction, length of lessons, content area, tasks given and the environment in which the participants take the tests.

Secondly, this school is in an urban setting in Penang Island and only two intact classes are selected randomly from six Arts Stream classes. In other words, a fairly small group of selected students are being analyzed, thus, indicating only a small percentage of the student population. Hence, this total selected sample size of students might not be able to provide conclusive findings.

Thirdly, only one Form Six MUET teacher conducted the study throughout the whole duration on a limited number of students in a specific chosen urban school. The teacher participant did not have any knowledge about WebQuest or had not

taught using a web-based tool in the classroom before. Although the researcher gave briefings and training on the use of WebQLM prior to the study, the teacher participant might not have fully understood and might fail to deliver effective writing instruction using this WebQLM. However, close monitoring by the researcher and regular discussions with the teacher participant could hopefully solve this problem.

Lastly, due to time and financial constraints, the duration of the intervention using WebQLM was limited to only three weeks (twelve double periods of lessons). The reading and writing tasks were accomplished within that limited duration (3 weeks). If these participants were given more time, the results would be richer.

1.8   Operational Definitions

1)   WebQLM

In this study, WebQLM is also known as WebQuest Learning Module. WebQLM is designed with problem-based learning activities to engage students in learning, enhance their motivation, collaboration and performance in argumentative writing. WebQLM is a scaffolded learning module which consists of four WebQuests specifically designed for teaching and learning argumentative writing. Each WebQuest has a different topic of structured lesson for students to learn collaboratively in a constructivist and authentic environment using all links and pre-selected resources from the World Wide Web. In this study, all these four WebQuests are designed and developed from Zunal WebQuest Maker which has structured scaffolded activities to allow students to work collaboratively towards the same goal to complete tasks. Each WebQuest has the essential components of Introduction, Task, Process, Resources, Evaluation, Conclusion and Teacher Page. Students are required to

go through each component in order to accomplish the tasks. In the Process component, students are guided and scaffolded step-by-step to attain the objective in accomplishing the tasks. For self-assessment, a rubric of evaluation is provided in the Evaluation component. WebQLM website can be accessed at http://www.circlepad.com/WebQLM.

2) **Motivation**

Motivation is a kind of force that drives students to behave, move forward, or take positive actions to satisfy their needs to learn something. In this study, motivation includes aspects of interest that attracts students' attention, curiosity, confidence and satisfaction in sharing ideas and accomplishing writing tasks. Motivation is measured to investigate students' responses and their level of engagement in all the WebQLM tasks and activities. It is one of the observed behaviours checked by the teacher participant using the Observation Checklist Rubric. This rubric was adapted from Kathy Schrock's Guide for Educators on Collaboration Rubric (Schrock, 1995) and Global 21 Learning Skills/Behaviour Rubric (2010).

3) **Collaboration**

In this study, collaboration can be defined as a process where two or more students work together towards a common goal. It is directly linked to collaborative learning where peers in each group are actively involved or engaged in the learning process, in this case, learning to write argumentative essays. Students from various backgrounds work collaboratively in small groups to produce argumentative essays and other writing projects. Each

student is responsible for one another in accomplishing the tasks given in WebQLM. Students work in a group of three members and involve in research, sharing ideas, discussions, presentations, essay writing and productions like newsletter, journal or scrapbook and informative pamphlet. In this study, collaboration is measured to investigate how students respond and engage collaboratively in all the WebQLM tasks and activities. It is also one of the observed behaviours checked by the teacher participant to see how students respond in the WebQLM collaborative learning environment. The rubric was adapted from Kathy Schrock's Guide for Educators on Collaboration Rubric (Schrock, 1995) and Global 21 Learning Skills/Behaviour Rubric (2010).

4) **Attitude**

In this study, attitude is measured to investigate how students behave and react during their engagement in all the WebQLM writing tasks and activities. There are three categories observed, namely (1) work ethics, (2) questioning and posing problems and (3) persisting and devoting. Attitude is one of the observed behaviours measured using the Observation Checklist Rubric which was adapted from Kathy Schrock's Guide for Educators on Collaboration Rubric (Schrock, 1995) and Global 21 Learning Skills/Behaviour Rubric (2010).

5) **Argumentative Writing**

In this study, argumentative writing is a writing genre which focuses on debating an issue or a situation given within the scope in the MUET syllabus. Argumentative writing is quite similar to persuasive writing in which writers

attempt to persuade readers to believe in their claims. Every rebuttals and points of information argued are pivotal in order to support the claims made. Moreover, students are encouraged to provide examples and quotes accessed from reliable resources to produce an effective argument.

6) **Writing Performance**

Writing performance is a variable measured in this study using the Paired Sample T-Test on the pre-test and post-test scores obtained. The argumentative essay in the pre-test and post-test were evaluated using the MUET marking guidelines rubric for preparing students for MUET based on two important criteria, task fulfilment and language. Both have an equal score of 30 marks. Each student's writing performance in the pre-test and post-test is also compared to find out how much student has gained or improved by using the descriptive statistic.

1.9 Summary

In this study, the background of the study and statement of problems related to the issue of integration of new technologies in today's literacy education are provided. This study has basically a mixed methods research model with more dominance in the qualitative approach to investigate the effectiveness of the developed WebQLM as a web-based learning module in ESL classrooms to enhance students' argumentative writing performance. With WebQLM being integrated in the writing instruction, the researcher can observe and gain insights into whether the developed WebQLM promotes effective learning in a constructivist environment allowing students to work collaboratively in their writing tasks. Technology

integration in the classrooms using Internet resources, web-based learning, inquiry-based learning and WebQuest will be further discussed in the next chapter on literature review.

CHAPTER TWO

THEORETICAL PERSPECTIVES AND RELATED LITERATURE

2.0 Introduction

This chapter begins with a discussion of the theoretical perspectives that underpin the teaching of a second language that integrates technology such as WebQuest in classrooms to support meaningful and inquiry-based learning as well as the teacher's role in technology integration.

The theoretical perspectives that frame this study are from the fields of Engagement Theory, Cognitive Constructivism and Social Constructivism. These three theoretical perspectives are explored and combined for an understanding of how a web-based classroom can facilitate meaningful and authentic learning using WebQuest. Meaningful learning and Inquiry-Based Learning are also discussed and linked to the integration of technology in teaching. Next, related literature review on WebQuest and argumentative writing are described in detail. Previous studies in the area of technology integration using WebQuest in the classroom are reviewed and discussed within the scope of motivation, collaboration and writing. Finally, the conceptual framework or model for this study which is formed based on these theoretical areas and related studies discussed is presented.

2.1 Theoretical Perspectives

There are three different theoretical perspectives underpinning technology integration and the teacher's role in the teaching of a second language using WebQuest in the classroom. They are the Engagement Theory, Cognitive and Social Constructivism.

Engagement theory posits that the inclusion of web technology in the classroom can facilitate active engagement among students (Kearsley & Shneiderman, 1998). Therefore, students can be involved in active cognitive processes as well as collaborative learning among peers in a web instructional environment.

WebQuest emerges as a powerful web instructional tool that supports the principles of cognitive constructivism in language teaching, as well as social constructivism and active engagement or interaction in a technology-based environment. It is used in supporting active learning, inquiry-based learning and scaffolded learning. Students are guided or scaffolded through the learning process and actively engaged in extensive reading from a wide range of linked resources (Dodge, 1997; Vidoni & Maddux, 2003; Godwin-Jones, 2004; March, 2006). These theories, Engagement Theory, Cognitive and Social Constructivism, are described as sharing the convergent beliefs in engaging students in active, authentic, constructive and collaborative learning tasks.

2.1.1 Engagement Theory

The fundamental idea underlying Engagement Theory is that students must be meaningfully engaged in learning activities through interaction with their peers and the tasks. Engagement theory states that all learning ought to have three major characteristics, namely collaboration, problem-based, and authenticity. It espouses a constructivist philosophy, in which students are given the chance to create their own learning (Kearsley & Shneiderman, 1998).