# ESL TEACHER-TRAINEE REFLECTIONS ON THE USE OF THE WEBQUEST: PRACTICAL OR JUST A HYPE?

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## ABSTRACT

The era of computer-mediated-communication in almost all spheres of life, specifically in the teaching process will continue to grow inexorably. The popularity of the WebQuest as one of the most useful teaching tools in ESL has been clearly demonstrated by the number of hits the WebQuest homepage has received. As many as 7.5 million visitors have been recorded at the web site in the nine years from February 1998 to early February 2006. More importantly, the WebQuest activities are seen to have strong theoretical and pedagogical foundations. Lamb and Teclehaimanot (2005) have underscored the advantages of the WebQuest, stressing how the activity integrates the internet into the classroom with evaluation, analysis and transformation of information that propels the activity beyond a mere "hodge-podge collection of facts and opinions" to "a more meaningful and authentic learning experience" reflective of high-level student thinking. Hence, language pedagogy cannot and should not be immune to the advantages the WebQuest and the technologies it can offer with regard to information, resources and opportunities for global communication. The study elicits teachers' views on the practicability of the WebQuest; whether it is indeed feasible and useful to be used in the ESL classroom or is it merely a hype with potential limitations.

## Introduction

WebQuest is an "inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the Internet" (Dodge, 1995). It has six critical attributes which make up the structure of the activity that includes: an introduction to the task; a task that is both interesting and can be performed; information resources that will contribute to the completion of the task; a clear process in performing the task; evaluation that acts as guidance and an organisational framework; as well as a conclusion that encourages user reflection and closure. The popularity of the WebQuests has been clearly demonstrated by the number of hits the WebQuest homepage has received. As many as 7.5 million visitors have been recorded at the web site in the nine years from February 1998 to early February

2006. More importantly, however, the WebQuest activities are seen to have strong theoretical and pedagogical foundations.

Lamb and Teclehaimanot (2005) have highlighted the advantages of the WebQuest, stressing how the activity integrates the Internet into the classroom with evaluation, analysis and transformation of information that propels the activity beyond a mere "hodge-podge collection of facts and opinions" to "a more meaningful and authentic learning experience" reflective of high-level student thinking. In their retrospective, they discuss how WebQuests are noted to have foundations in "constructivist philosophy; thinking, understanding, and transformational learning; authenticity and situated learning environments; inquiry-based learning; scaffolding; differentiation; cooperative learning; motivation; and motivation, challenge and engaged learning" (pp. 2-7). Indeed, many educators believe that the WebQuest can help both learners and teachers to be "creative and productive, using this powerful medium to spark the imagination, solve problems, and promote discussion about important issues" (Yoder, 1999: 53).

**The WebQuest Model**

The WebQuest model was first designed by Bernie Dodge of San Diego State University (*http://webquest.sdsu.edu/webquest.html*). The model incorporates a combination of sequenced steps and preselected linked Web sites to guide learners through the lesson. Dogde (2001) stated that the WebQuest was designed to inspire learners to see richer thematic relationships, to contribute to the real world of learning, and to reflect on their own metacognitive processes. The WebQuest's scaffolded learning structure uses links to essential resources on the World Wide Web to motivate learners as they investigate open-ended questions, develop individual expertise in the area they are researching, and participate in a group process that transforms newly acquired information into a more sophisticated understanding.

Dodge (1995) emphasised that there is no prescribed format for the WebQuest model, but most WebQuests have the following elements:

*1. Introduction*

An introduction sets the stage and provides some background information. The orientation provides a scenario that engages learners in the task. It should be imaginative and relevant to the learners' needs and interests.

*2. Task*

The task is a description of what the learner needs to accomplish by the end of

the WebQuest task. The problem designed has to be one that challenges and elicits learners thinking that goes beyond rote comprehension.

*3. Process or Steps*

A clear description of the process or steps learners need to go through is outlined when accomplishing the task. This is where learners locate, synthe size and analyse information and collaborate with team members to complete the task. They need to know exactly where they are in each step and what to do next.

*4. Resources*

Since the WebQuest itself is taught on-line, the resources involved in a WebQuest activity is generally Web-based, but it could also be available in print or video resources. The majority of the resources should be found on the Internet where the teacher can provide a common list of resources that can be used by all learners.

*5. Evaluation*

Pickett and Dodge (2001) recommend that rubrics be used for the purpose of evaluation. The criteria should be clear, consistent, and specific to the tasks set.

*6. Conclusion*

This section of the WebQuest provides an opportunity for learners to reflect on what they have learned, and perhaps encourage them to extend the experience into other domains.

## The Study

In this study, a group of university students explored the WebQuest as part of their course requirement. The course, EDU 3212 Computer Applications in TESL was taught to the undergraduates in their fourth semester. They comprised 60 teacher trainees (average age= 21.6) pursuing a degree course in the Teaching of English as a Second Language or TESL.

During the first lab session which consisted of 2 hours, students were instructed to familiarise themselves with the WebQuest which included visiting the San Diego State University WebQuest page at: *http://webquest.sdsu.edu/webquest.html* (see Figure 1) and reading Bernie Dodge's articles 'Some thoughts about WebQuests' and 'Building blocks for WebQuests' that were accessed through this page. They were also required to answer questions related to the WebQuest which were provided in the worksheet.

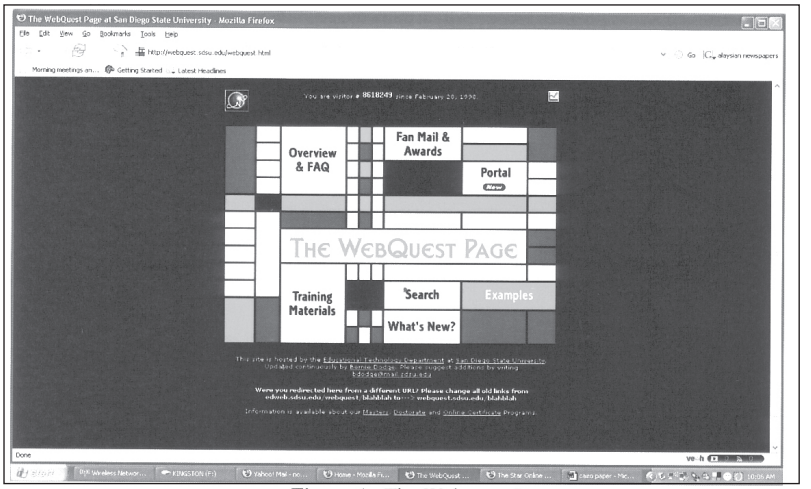


Figure 1: The Webquest Page

In the second lab session, students were instructed to explore sample WebQuest pages that were accessed through *http://webquest.sdsu.edu/designpatterns/all.htm* (see Figure 2). The aim of this session was to enable students experience and understand how different WebQuests work. As part of the requirement of the course, students were instructed to work in pairs on the WebQuest: 'In Search of A Hero' (see Figure 3). For this task, students had to develop a set of criteria to identify a hero and create a 'Want-Ad' for their hero. In addition, they were also instructed to create a multimedia presentation that summarises and shares the information gathered on their hero and persuades the audience on the hero's qualifications as 'Hero of the Century.'

In the third and last lab session, students presented their multimedia presentation and responded to a questionnaire which was administered after the whole class completed their presentation. The questionnaire consisted of 3 sections: Section A, which served to elicit information on the students' biodata and accessibility in using the computer and the Internet. Section B served to elicit information on the use of diaries as part of their reflection process undergoing the course. For the purpose of this paper, however, responses to this section were not analysed. In Section C, 15 positive statements concerning the benefits of the WebQuest activities were presented to the students (see Lamb and Teclehaimanot, 2005;

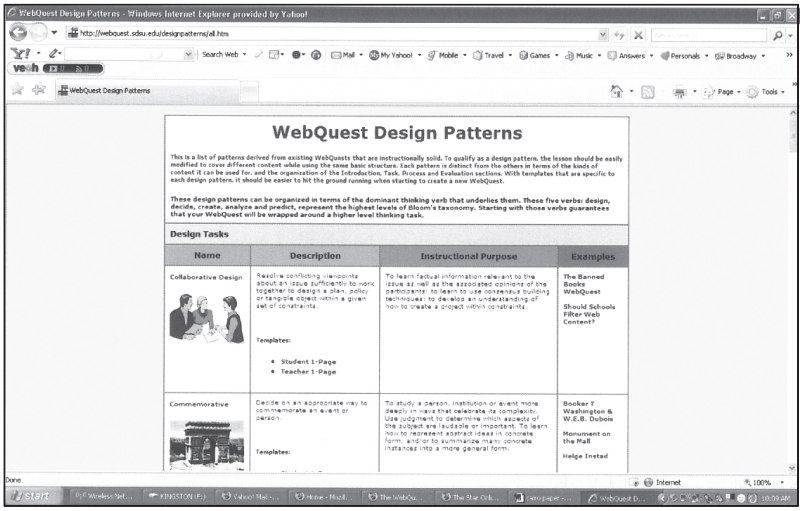


Figure 2: WebQuest Design Patterns

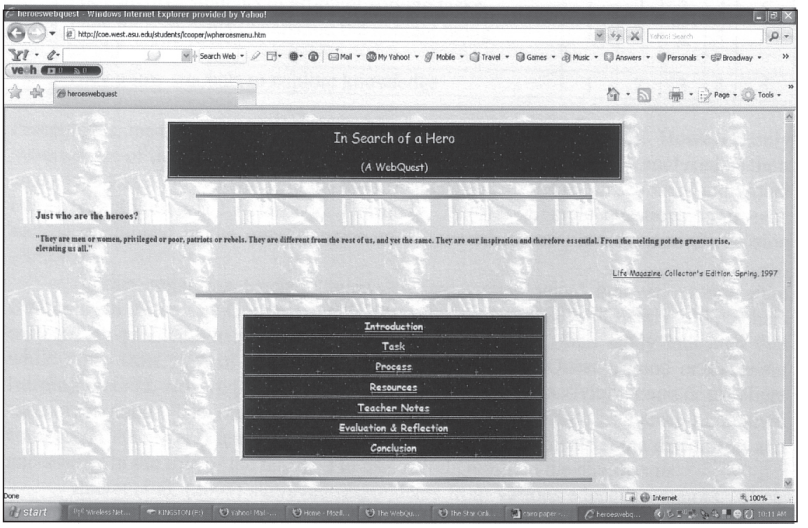


Figure 3: WebQuest: In 'Search of a Hero'

Table 1: Section C of the questionnaire

The following statements are about the WebQuest. Circle the number on the scale that corresponds to your reaction as a teacher trainee to each statement. (SD = Strongly Disagree; D = Disagree; U = Undecided; A = Agree; SA = Strongly Agree)

| | SD | D | U | A | SA |
|---|---|---|---|---|---|
| 1. They are meaningful to the students. | 1 | 2 | 3 | 4 | 5 |
| 2. They provide an authentic learning experience. | 1 | 2 | 3 | 4 | 5 |
| 3. They encourage higher order thinking. | 1 | 2 | 3 | 4 | 5 |
| 4. They encourage students to learn cooperatively with other students. | 1 | 2 | 3 | 4 | 5 |
| 5. They provide an appropriate challenge that can motivate the students. | 1 | 2 | 3 | 4 | 5 |
| 6. They involve students in problem solving tasks. | 1 | 2 | 3 | 4 | 5 |
| 7. They help students understand the content being taught. | 1 | 2 | 3 | 4 | 5 |
| 8. They allow students to explore knowledge | 1 | 2 | 3 | 4 | 5 |

Zheng *et al*., 2005). A Likert-type scale was used to state whether they agreed to the 15 statements in Section C of the questionnaire (see Table 1).

Percentages, mean scores as well as the median were used for analysis. However, only mean scores of the summated scores for each section were statistically analysed as their analysis is less controversial than the statistical analysis of the mean scores of individual items on a Likert scale (Clason and Dormody, 1994). Sample questions from each section mentioned in the questionnaire are discussed in the Findings and Discussion section.

Studies regarding teachers' views toward technological innovations are quite common. In a study by Gorghiu *et al.* (2005), for example, 80% of nearly 200 teachers reported no problems in the use of WebQuests. However, their study indicated that while more than 90% of the teachers considered the WebQuest a good or excellent learning method, only slightly more than half considered the activity a good or excellent teaching method. The lower positive perception of the WebQuest as a

teaching method compared to the WebQuest as a learning method seems to indicate some discomfort and uncertainty in the role of the teachers in using WebQuests in the classrooms.

Zheng *et al*. (2005) surveyed respondents from various education majors. Their study revealed that "constructive problem-solving, social interaction and scaffolded learning" were seen as important factors in WebQuest learning by the respondents. Based on this finding, the researchers inferred that teachers "need to shift from creating prescriptive learning situations to developing environments that engage learners and require them to solve problems and construct knowledge that is most meaningful to them" (p. 47).

This study anticipates varying views from the students with regard to the use of WebQuest in the course they undertook. Though it is expected that students will find the WebQuest to be beneficial in language teaching and learning, it is also anticipated that some might regard it as just another tool. In this study, the major views expressed by the students regarding the potential of WebQuests in language teaching and learning are described. Students' views and reflections made in their journal entries are discussed as well. Lastly, suggestions on integrating WebQuests in language teaching and learning through the acceptance of and implementation by the students will also be made based on the findings of the study.

## Findings and Discussion

*Accessibility in Using the Computer and the Internet*

A great majority of the students (45.6%) indicated that they go to the lab between 3-4 times to get access to the Internet every week. As Table 2 further indicates, 42.1% of the students go to the lab between 1-2 times to use the Internet while only 12.3% go to the lab more than 4 times per week to get access to the Internet.

Table 2: Average number of times students go to the lab to get access to the Internet or for other purposes every week

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1-2 times | 24 | 40.0 | 42.1 | 42.1 |
| | 3-4 times | 26 | 43.3 | 45.6 | 87.7 |
| | more than 4 times | 7 | 11.7 | 12.3 | 100.0 |
| | Total | 57 | 95.0 | 100.0 | |
| Total | | 60 | 100.0 | | |

Table 3: Number of hours spent in the lab to get access to the Internet or for other purposes every week

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | less than 1 hour | 2 | 3.3 | 5.3 | 5.3 |
| | 1-2 hours | 19 | 31.7 | 50.0 | 55.3 |
| | more than 2 hours | 17 | 28.3 | 44.7 | 100.0 |
| | Total | 38 | 63.3 | 100.0 | |
| Total | | 60 | 100.0 | | |

Table 4: Owning a computer at home/hostel that can connect to the Internet

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Yes | 39 | 65.0 | 65.0 | 65.0 |
| | No | 21 | 35.0 | 35.0 | 100.0 |
| | Total | 60 | 100.0 | 100.0 | |

Data on the average number of hours spent in the lab to use Internet facilities as specified in Table 3 showed that 50.0% of the students spend between 1-2 hours in the lab to use the Internet while 44.7% admitted they spend more than 2 hours using the Internet in the lab while only 5.3% used the lab less than 1 hour to use the Internet facilities every week.

It was also found that the majority of the students owned a computer either in their home or hostel. As Table 4 indicates, 65.0% of the students in the study owned a computer either at home or in the hostel that can connect to the Internet.

The data obtained on the place where students most frequently go to get on line showed that majority of the students, 50.0% to be precise, reported getting on line by going to the cyberlabs in their faculty, while 41.7% indicated that they get on line by using their own computers either at home or at the college (Tables 5 and 6). Other locations students go to get connected to the Internet are the main library, faculty's resource centre, and their friend's houses.

Table 5: Place that students most frequently go to get online: Cyberlabs

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Yes | 30 | 50.0 | 50.0 | 50.0 |
| | No | 30 | 50.0 | 50.0 | 100.0 |
| | Total | 60 | 100.0 | 100.0 | |

Table 6: Place that students most frequently go to get online: Home/Hostel

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Yes | 25 | 41.7 | 41.7 | 41.7 |
| | No | 35 | 58.3 | 58.3 | 100.0 |
| | Total | 60 | 100.0 | 100.0 | |

To reiterate, the purpose of the study is to elicit students' views on the practicability of the WebQuest; whether it is indeed feasible and useful to be used in the ESL classroom. In general, the students were receptive to the idea of using the WebQuest and were positive as well about the use of WebQuests to learn and teach English. Almost all of them (96.7%) admitted that, before they undertook the course: EDU3212 Computer Applications in TESL, they had never heard of the WebQuest before.

Overall, students reacted positively towards the benefits of using the WebQuest to facilitate English learning as indicated in Table 7. Students felt that the WebQuest and its activities were meaningful (M = 4.21), provided an authentic learning experience (M = 4.45), encouraged higher order thinking (M = 4.08), encouraged cooperative learning (M = 4.32) and provided an appropriate challenge that can motivate students (M = 4.25). These results strengthen the potential of WebQuest as an effective Internet tool in fostering critical thinking skills and providing ample benefits in the teaching and learning of English (Weistein, 2000; Lipscomb, 2003).

In addition, Table 8 indicates that students viewed the WebQuest activities useful as they found themselves engaged in using their knowledge and skills to seek meaningful solutions (M = 4.31), helped students understand the content

Table 7: Students' views on the benefits of WebQuest

| | Mean | Std. Deviation |
|---|---|---|
| They are meaningful to the students. | 4.2167 | .55515 |
| They provide an authentic learning experience. | 4.4500 | .53441 |
| They encourage higher order thinking. | 4.0862 | .68273 |
| They encourage students to learn cooperatively with other students. | 4.3276 | .68538 |
| They provide an appropriate challenge that can motivate the students. | 4.2586 | .63689 |

Table 8: Students' views on problem-solving through WebQuests

| | Mean | Std. Deviation |
|---|---|---|
| They involve students in problem solving tasks. | 4.3103 | .62708 |
| They help students understand the content being taught. | 3.8793 | .67739 |
| They allow students to explore knowledge | 4.5172 | .68162 |
| They allow students to evaluate information. | 4.2759 | .74441 |
| They break down a task into meaningful chunks. | 4.0000 | .81650 |

being taught (M = 3.87), allowed them to explore knowledge (M = 4.51), evaluate information (M = 4.27) and break down a task into meaningful chunks (M = 4.00). The results of this study seem to confirm the claim of Zheng *et al.* (2005) that the constructive problem solving, social interaction and scaffolded learning were seen as important factors in the WebQuest learning.

Table 9 shows that a fairly high number of students perceived the practicability of the WebQuest in the ESL classroom. If given adequate and appropriate facilities, they would use the WebQuest in their teaching (M = 4.22) and find it easy to integrate it into the English lessons (M = 4.12). Students also found that the WebQuest activities are easy to design (M = 3.72) as they are ready-made templates that will help them to plan their activities, the time and effort spent to prepare the activity is worthwhile (M = 4.05) and they foresee that their own students will enjoy the WebQuest activities (M = 03).

The data obtained verifies Lamb and Teclehaimanot (2005) who have underscored the advantages of WebQuests, stressing how the activity integrates the

Table 9: The practicability of the WebQuest in the ESL classroom

| | Mean | Std. Deviation |
|---|---|---|
| If all the facilities are provided, I will use WebQuests as part of my teaching. | 4.2241 | .81742 |
| WebQuests can be easily integrated into English lessons | 4.1207 | .85998 |
| WebQuest activities are easy for teachers to design | 3.7241 | .83336 |
| The benefits of the WebQuest activity is worth the time and effort needed to prepare the activity | 4.0517 | .68627 |
| My students will enjoy WebQuest activities | 4.0345 | .89767 |

Internet into the classroom with evaluation, analysis and transformation of information that propels the activity beyond a mere mishmash collection of facts and opinions to "a more meaningful and authentic learning experience" reflective of high-level student thinking. In their retrospective, they discuss how WebQuests are noted to have foundations in "constructivist philosophy; thinking, understanding, and transformational learning; authenticity and situated learning environments; inquiry-based learning; scaffolding; differentiation; cooperative learning; motivation; and motivation, challenge and engaged learning" (pp. 2-7).

**Difficulties and Limitations**

Though the results supported the tremendous benefits of the WebQuest, students' journal reflections highlighted some difficulties and limitations which included:

- More time was needed to familiarise students with the WebQuest concept and its tasks. Some were *"…still in the dark as to how the WebQuest would allow students to learn problem solving."* It was deduced that since the WebQuest was not developed and designed as an integral part of the teaching process, it was difficult to fit the WebQuest with the content being taught for the course.
- While most students enjoyed completing the task given, some took a little longer and others became frustrated with tasks as they found them to be *" …a bit boring as we have to follow the format", "…there are too many links and I became even more confused to continue further"* and *"…doesn't really attract my attention or interest"*. Hence, although the instructional guide provided support and aided students with the WebQuest task, some were still confused.

- Because the WebQuest was a new online technology to not only the students but to the teacher as well, the quality of supervision and monitoring the students' progress may have been lacking or incomplete as some of the students reported that "*… I need more guidance and direction…"* and *" …need help in organising the information found as they are too many!"*, and these were some of the concerns highlighted by students in their journals.

**Conclusion**

Since its inception in 1995 by Bernie Dodge and Tom March form San Diego State University, the WebQuest has gained much support from all quarters of the educational community. However, research on the application of WebQuests as an effective method of incorporating technology with educational concepts in Malaysia has been sparse. This study has provided some insights into how Malaysian teacher trainees respond to the use of WebQuests through the reflective learning process. While the majority of the teacher trainees were receptive to the WebQuest's capabilities, their journal entries also revealed some negative views of the WebQuest as a teaching and learning tool.

Careful planning is needed to ensure the successful integration of the WebQuest into the Malaysian school context. Findings from the current study indicate that the teacher trainees acknowledge the WebQuest's potential as a tool that provides opportunity to actively engage in learning by connecting to the Internet, computer-based materials and other available resources. Based on the findings of this study, some factors need to be taken into consideration to ensure the feasibility of the WebQuest application in the ESL teaching and learning process. Lack of time for teachers to create their own WebQuests can be overcome by using what is already available in the teacher-generated WebQuest collection. To cater to students' needs and interests, it is advisable to start with a simple and short term WebQuest and then move on to a more complex WebQuest which spans more than a week to complete.

To guarantee that the WebQuest is not an online tool that merely pays lip service in the context of ESL teaching and learning, an effective management technique to facilitate and monitor students' progress ought to be emphasised. The very nature of the WebQuest should ensure that the students engage in only those activities assigned to them and visit only those Internet sites provided.

As teachers think about how to use computer technologies in language classrooms, they also need to look into the instructional practices that will assist and

enhance the use of Internet tools in language teaching. The current study provides evidence that serves as the next logical step for teachers to research further on the practicality and feasibility of the WebQuest to be used in the ESL classroom. As indicated in this study, although the WebQuest proves to be a fascinating application tool, it is not devoid of limitations and difficulties. The results of this study provide important knowledge for teachers to recognise the limitations of the WebQuest and be able to adapt its use to their own purposes and conditions. An in-depth understanding of the diversity and dynamics of the WebQuest was gained from the current study that prompts further investigation on the mechanics of making the WebQuest a more effective instructional tool. With the growing interest in WebQuests, it is imperative to ensure its practicality in the ESL classroom and not be seen as just a technological hype.

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