Using WebQuests to Facilitate Task-based English Reading Instruction for Graduate Students

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Abstract
The WebQuest is a process involving students using the Web to learn about a topic or solve a problem. The WebQuest as an instructional tool has gained popularity in the education field across subjects and settings, and is generally well received by both teachers and students. This paper presents an instructional design integrating WebQuests into teaching English reading to graduate students (non-English majors) in a Chinese university in attempt to examine the efficacy of this particular design, that is, to examine whether using WebQuests facilitates task-based English reading instruction for graduate students. This instructional design was implemented in a setting where the task-based teaching method was adopted through the entire course. After three months’ implementation, a survey was conducted on students’ responses to WebQuests utilization. Results indicate that students’ perception is that WebQuests facilitates their learning. The interview with the instructor also reveals alignment with the students’ responses.

Key words: WebQuests; English reading; task-based instruction

1. Introduction
The Web contains a vast supply of authentic, fresh language resources, and therefore is deemed to be an effective venue for language teaching and learning. For instance, Cummins (as cited in Sox & Rubinstein-Avila, 2009: 39) suggested that the World Wide Web has great potential for providing English language learners the visual and aural stimulation to render new concepts more comprehensible. Therefore, language teachers are constantly seeking ways to draw on these resources and incorporate the Web into their
The Department of College English at Shandong University has been actively upgrading its curriculum and integrating technology into students’ English learning. The undergraduates’ series of English textbooks has a well-developed software packet along with a supporting online system. In contrast, the graduate students’ English course lacks supporting courseware and the textbook adopted does not include any technology component. Against this backdrop, the teaching team for graduate student English has initiated a comprehensive reform. Integrating technology into classroom teaching to facilitate language learning is one of the major goals. The study introduced here was part of this reforming endeavor. The author proposed WebQuests as a change agent and the present study was designed to examine whether using WebQuests as a teaching platform would facilitate task-based English reading instruction for graduate students.

2. Literature review

2.1 WebQuests: The change agent
A WebQuest is an inquiry-oriented lesson format in which most or all the information that learners work with comes from the web (Dodge, 1997). Originated by Bernie Dodge and Tom March in 1995, the WebQuest’s design is based on a constructivist philosophy, and it promotes cooperative learning and scaffolding of instruction. WebQuests for language learning (e.g., TalenQuest) allow students to construct their knowledge of the language through exploring structured web resources on their own (Laborda, 2009). The use of WebQuests in foreign language learning is also supported by Krashen’s Input Hypothesis: a foreign language is better acquired when it is meaningful and acquired through experience (1982). In addition, several studies (Bradshaw et al., 2002; Owens et al., 2002; Ridgeway et al., 2002; Zheng et al., 2005) have linked WebQuests to the development of higher order thinking skills and problem solving skills (Zhou & Li, 2010). More importantly, WebQuest learning helps students become better learners by increasing their autonomy and providing them a sense of fulfillment (Cai, 2005; Liu, Song & Kong, 2007; Lou, 2010).

When it comes to using the Internet, there is a concern that if students have free access to the Internet, they may stray and access inappropriate material. However, WebQuests can effectively address these concerns. WebQuests offer organized resource links for students, and this reduces the chance that students will access inappropriate material (Vidoni & Maddux, 2002). WebQuests include links only to the applicable online resources, thus providing an efficient and focused lesson. WebQuests facilitate effective learning by providing structured resources so that learners do not waste time in fruitless searching; and enable teachers to efficiently use computer resources in classrooms (Milson & Downey, 2001).

WebQuests accommodate different student learning style needs and lend themselves well to cooperative learning (Hopkins-Moore & Fowler, 2002). Aural, kinesthetic, and visual learning styles are supported with multiple media resources available through the
WebQuest. Students who need assistance from others benefit from team work and all students get a chance to learn from others. They learn as they quest on the Web and the interaction is motivating for students.

A well-designed WebQuest typically consists of six components (Dodge, 1998): (a) introduction; (b) task; (c) process; (d) resources; (e) evaluation; and (f) conclusion. The introduction serves to launch the topic by providing interesting background information and a blueprint for the whole quest. The task and process sections present a general description of the assigned task and the step-by-step procedure to be followed for completing the task. A set of information sources needed to complete the task is provided in the resources section. Information sources might include web documents, searchable databases on the net, and books and other documents physically available in the learner’s setting. The evaluation component is usually in the form of a rubric that will be used to assess students’ work, and the conclusion brings the quest to closure, reminds learners of what they have learned and encourages them to extend the experience into other domains. Student-centered and inquiry-based, the WebQuest is generally constructed around a theme of interest. Students who work in small groups follow the steps in the WebQuest model to study the proposed topic, examine the problems, search for information with the web resources provided by the instructor, analyze and synthesize information using guided questions, and complete the required tasks to solve the problems. Often assigned with certain roles in the group, students work on the topics together and collectively contribute to the understanding of the issues with considerable breadth and depth. The instructor scaffolds learners through the entire learning process using a structured approach. Ongoing, formative assessment, which often takes the form of rubrics, is used to evaluate students’ learning, the purpose of which is to help students develop the ability to check and improve their own performances rather than to catalog their mistakes.

Two levels of WebQuests exist: short term and long term. Short term WebQuests focusing on learners’ knowledge acquisition and integration can be completed in one to three class hours, whereas long term WebQuests emphasize learners’ ability to extend and refine knowledge. Long term WebQuests may take between one week and a month in a classroom setting (Dodge, 1997; Gaskill, McNulty & Brooks, 2006).

2.2 Task-based reading instruction: The context
This action research project was conducted in a graduate student English reading class in which task-based methodology was adopted. Task-based Instruction is characterized by activities that engage language learners to engage in meaningful, goal-oriented communication to solve problems, complete projects and reach decisions. Researchers have found that the communication strategies and learning processes that emerge during the task completion are consistent with those advanced in SLA theory (Pica, 2008). According to Nunan (2004), task-based language teaching emphasizes the learning of communication through interaction in the target language, the introduction of authentic texts into the learning situation, the provision of opportunities for learners to focus not only on language but also on the learning process itself, an enhancement of the learner’s own personal experience as important contributing elements to classroom learning, and
the linking of classroom language learning with language use outside the classroom. As the learners carry out a task, demands on their attention, comprehension, and production can lead them to test L2 hypotheses, obtain feedback on their comprehensibility, draw inferences about L2 rules and features, and produce more accurate and developmentally advanced output (Pica, 2008). The above description along with the previous literature review of WebQuests makes it clear that the WebQuest concept is compatible with task-based language learning. With the aforementioned theoretical underpinnings, the author bridged these two concepts—WebQuests and task-based language learning.

2.3 Designing and creating WebQuests: From theory to practice
The WebQuests were developed based on the textbook, *Active English for Postgraduates*, by Liu Runqing, Tang Dexing, and Wang Guiming. Each WebQuest was constructed around the theme of Text A in each unit. WebQuests were designed in accordance with Dodge’s six components of WebQuests. Each WebQuest was created with Microsoft Office FrontPage in a multiple-page website format. The introduction presents the author’s information and interesting background information about the theme. A combined task and process section includes a series of tasks generated from the text to address pre-determined learning objectives, as well as the directions and suggested steps for completing these tasks. Tasks are made as authentic as possible, focusing on meaning and encouraging students to communicate to solve problems. For example, in Unit 3, *The Case Against Man*, students were required to research the world’s population and create a chart and report their findings in writing. Students may also engage in debating on cyberspace (Unit 1), in scripting and role-playing a brief conversation between a woman and a man to demonstrate gender difference in conversational habits (Unit 2), and so forth. The resource section lists information resources to help students better understand the text, broaden knowledge, and complete tasks. The selected resources, including websites, audios, videos, and books, are supposed to be highly relevant and interesting to increase motivation in learning. The evaluation takes the form of rubrics, a scoring guide that seeks to evaluate a student’s performance based on the sum of a full range of criteria rather than a single numerical score. A rubric is also a working guide for students to get them to think about the criteria on which their work will be judged. The conclusion brings closure to the quest and serves as a review guide, reminding the learners of what they’ve learned and encouraging them to extend the experience into other domains.

WebQuests were saved on the teacher’s master computer so other computers in a workgroup can access the files through intranet. Following Dodge’s (2001) five rules for writing a great WebQuest, the WebQuests are characterized by the following features: 1) Websites were carefully selected and screened to prevent students from information disorientation and overload. Resources were organized into categories with a short description for each category. 2) Students were divided into groups and required to work collaboratively to complete tasks. 3) Tasks were designed to challenge students to think and use the language in lifelike situations. 4) Linguistic and cognitive scaffolding was provided for each section.
3. Methodology

3.1 Participants
One hundred and sixteen students of three classes (Classes NO. 4, 11, and 14) participated in this study. These were first year graduate students from the School of Management, School of History and Culture, Law School, and School of Arts. The course focused on improving students’ reading ability and also involved a range of oral and written activities in class. The course ran for a period of 16 weeks. Students attended the class once a week with each session lasting three hours.

3.2 Teaching procedure
The study lasted from Week 3 to Week 16. The participants were placed in computer labs with Internet access. In the opening session, the teacher introduced WebQuests to them and demonstrated how to use them. They were also given time to navigate through the sites on their own to get familiar with each section of a WebQuest. Each unit lasted two sessions (two weeks) and was composed of three phases: the pre-task, during-task, and post-task phase. In the pre-task phase, the topic and task(s) were introduced by the teacher, including the goal, procedure, and time needed. Warm-up activities were usually included, such as brainstorming, mind mapping, and anticipation guides. In the during-task phase, the students worked individually or collaboratively to complete tasks. For example, they worked in groups to finish a word search, or to research the development of the English language. The teacher’s role was to function as facilitator, organizer, and monitor, providing scaffolding for learning. The students took initiative and responsibility for their learning and asked for help when they needed it. In the post-task phase, the teacher summarized the unit and led the students to review targeted knowledge or skills. The teacher also evaluated students’ work and possibly provided opportunities for repeated performance. The point was to encourage reflection on how the task was performed and produce improvements in the future.

3.3 Data collection
Data came from three sources: 1) a survey on students’ reactions toward WebQuests; 2) journal entries of students writing about their experience with the WebQuest; 3) an interview with the instructor. The questionnaire consisted of six questions, each with a five point Likert scale ranging from strongly disagree to strongly agree (strongly disagree = 1, disagree = 2, uncertain = 3, agree = 4, strongly agree = 5). The instrument was developed to investigate whether students perceived WebQuests as a facilitator in the task-based reading class. In the last week, students were asked to write a journal entry to reflect on their experience with the WebQuest, what they liked or disliked about it.
4. Results and discussion

4.1 Analysis of the quantitative data
All the 116 students completed the questionnaires. Responses were tabulated as percentages with mean scores and standard deviations (see Table 1).

<table>
<thead>
<tr>
<th>Statements</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The WebQuest has helped me build a better background for reading and understanding the text.</td>
<td>74.1%</td>
<td>25.9%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>4.7414</td>
<td>0.4397</td>
</tr>
<tr>
<td>2. The WebQuest is interesting and motivating to me.</td>
<td>67.2%</td>
<td>18.1%</td>
<td>14.7%</td>
<td>0%</td>
<td>0%</td>
<td>4.5259</td>
<td>0.7397</td>
</tr>
<tr>
<td>3. The WebQuest has provided guidance to help me better complete the tasks.</td>
<td>78.5%</td>
<td>15.5%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>4.7241</td>
<td>0.5685</td>
</tr>
<tr>
<td>4. The resources provided by the WebQuest were useful and relevant in terms of task completion.</td>
<td>84.5%</td>
<td>10.3%</td>
<td>5.2%</td>
<td>0%</td>
<td>0%</td>
<td>4.7931</td>
<td>0.5195</td>
</tr>
<tr>
<td>5. The rubric has helped me evaluate my task completion and reflect on my own performances.</td>
<td>70.1%</td>
<td>17.2%</td>
<td>12.1%</td>
<td>0%</td>
<td>0%</td>
<td>4.5862</td>
<td>0.6986</td>
</tr>
<tr>
<td>6. The WebQuest has helped me review language points and targeted skills.</td>
<td>44.8%</td>
<td>30.2%</td>
<td>12.1%</td>
<td>12.9%</td>
<td>0%</td>
<td>4.0689</td>
<td>1.0444</td>
</tr>
</tbody>
</table>

The results indicate that the students had positive experiences with WebQuests. The table shows a high level of agreement. In the pre-task phase, all participants found the WebQuests helpful in building background knowledge (74.1% strongly agree and 25.9% agree). The majority (85.3%) agreed that the WebQuests interested them and motivated them to learn. Most students (94%) agreed that the WebQuests facilitated their task completion by providing guidance. It is worth mentioning that none of the students answered “disagree” on the scale. Similarly, most students (94.8%) found the resources on the WebQuests were useful and relevant. During the post-task phase, the majority of students agreed that the rubric helped them evaluate and reflect on their performances, although 12.1% of the students were still uncertain about this statement. This might be attributed to lack of knowledge about how to use a rubric and lack of time for self-evaluation and reflection. In terms of reviewing content and skills, 75% of the students agreed that the WebQuests were helpful but 12.1% were uncertain and 12.9% students did not agree with the statement. This means the WebQuest design may need to improve to scaffold students’ review of content and skills. Overall, these data show that the majority of students perceived the WebQuest as an effective tool to help them achieve positive learning outcomes.

4.2 Analysis of the qualitative data

4.2.1 Students’ journals
In their reflective journals, students were asked to discuss their personal experience with the WebQuest: What they liked or disliked about the WebQuest. Almost all of the
students (97.3%) expressed their fondness for the WebQuest one way or the other. Most students liked the WebQuest because it supplemented the textbook with more interesting information. As a student revealed:

The textbook has limited information and it is dull, but the WebQuest is such a colorful world in which I can explore by myself. I can see the picture of the author and get to know him/her better. I can read more interesting stuff related to the topic instead of just chewing on the text in the book.

Some students appreciated the extensive exposure to a variety of quality resources which they thought was beneficial to their language learning. One student wrote:

It gave me a lot to read about, and some video and audio. The more I read and watch English, the better I become. By the way, the resources were selected by the teacher, so it saved my time and they must be good in quality.

A number of students commented on the collaborative process of learning with the WebQuest. For instance,

The teacher asked us to work together as a group. Everybody needs to participate. I like the way how we helped each other. If I don’t know a word, I can ask, and there might me someone in the group who knows the answer. As we share our knowledge and wisdom, the tasks are not that hard…It is more fun than working alone.

4.2.2 Teacher’s interview

The interview with the teacher indicates an alignment with the students’ responses. The teacher shared her perspectives and agreed that the WebQuest facilitated her teaching in that it increased the learners’ motivation and supported their learning with abundant language resources. Here is an excerpt of the interview:

The power of the WebQuest can be seen in its ability to engage learners in constructing their own language growth, negotiating meaning in the fullest sense of personal and contextual relevance, developing individual’s language abilities, and supporting self-learning and problem solving. In a word, the WebQuest facilitated learning and teaching in my class. For me, it saved me a large amount of time explaining the directions and writing on the board. For the students, it’s like creating this virtual world of the unit theme for them to explore; the structured, organized quest helped them learn more than the text can offer…I can see the motivation was strong. The young people love computers and the Web and they enjoy playing around with them while learning the language…

In addition, the teacher shared pedagogical suggestions regarding the use of the WebQuest in the classroom:
The teacher’s guidance and supervision as scaffolding is crucial to the learning process involving WebQuests. The teaching mode has shifted from a teacher-centered one to a student-centered one in the task-based learning context with the integration of WebQuests. Consequently, the teacher’s role has changed to that of a facilitator. It requires high managerial skills on the teacher’s part to successfully run a class with multiple levels of interactions: student-student interaction, student-teacher interaction, and student-computer interaction. Integrating technologies into teaching relieves the teacher of the burden of chalk-and-board and oral instruction, but increases the scope of the teacher’s job, e.g., creating WebQuests. Both teachers and students need to be technologically prepared to succeed with the WebQuest learning. It is difficult to ensure equal participation for every student in such a setting. Inactive students are very likely to be left out if they do not take initiatives in group work.

In the above remarks, we find the teacher has taken on multiple roles in the web-based learning environment—instructor, facilitator, manager, technical worker, and coordinator. This point has been made by many researchers home and abroad (e.g., Cao, 1999; Hootstein, 2002). The emergence of computer-based learning makes it urgent to provide specialized pedagogical and technical training to help English teachers to successfully “teach” in the web-based classroom. Seminars and short-term training on Instructional Technology are good ways of keeping the English teachers informed of the new educational technologies and strategies to address accompanying learning issues. Teachers need to be educated before they can teach students in the new web-based context (Cao, 1999).

5. Conclusion

By definition, the WebQuest is compatible with the task-based language teaching (Godwin-Jones, 2004). This study showed that the WebQuest is an effective tool in facilitating task-based instruction in the graduate student’s English reading class. Integrating WebQuests into language teaching has the potential to reform the traditional reading class in China. And it is consistent with the ongoing reform in China’s education field to integrate technology into teaching and learning. However, it poses numerous challenges such as investment in labs, teacher training, effective classroom management, to name just a few. More research needs to be done on how to coordinate all these factors and how to effectively implement WebQuests in different settings, for instance, in oral communication classes, writing classes, and so forth.

Technology is always touted as being a panacea for ills in education. Research into effective uses of technology is important to justify its continued use. Since WebQuests are a new implementation of technology, a knowledge base surrounding effectiveness needs to
be developed. Studies also show that WebQuest learning is supported by four underlying constructs: critical thinking, knowledge application, social skills, and scaffolded learning (e.g., Brucklacher & Gimbert, 1999; Dodge, 1995, 2001; Pohan & Mathison, 1998; Vidoni et al., 2002). It is a joint effort by teachers, researchers, and instructional technologists in designing and implementing more class activities to substantiate these constructs in the language classrooms in Chinese institutions of higher learning.

References


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