Designing a Webquest 2.0 to Create an Engaging Online Learning Experience

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1. Introduction to WebQuests

In 1995, Prof. B. Dodge, thought of a way to integrate the World Wide Web, which had then recently appeared, into classroom activities. Thus he came up with the idea of a WebQuest which he defined as "... an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the internet…" [1]. Dodge used headings to point out the six essential parts of a WebQuest: i. the introduction (background information about the topic); ii. the task (a general description of the assigned task for the learners); iii. information sources (mostly online resources students can investigate to carry out the task; iv. the process (description of the steps to be followed for task completion); v. evaluation (evaluation criteria to be used to assess students performance; and vi. the conclusion (an explanation of what students accomplished).

After of almost ten years of WebQuest implementation, Dogde' s mentee, T. March found it necessary to redefine the WebQuest as: "a scaffolded learning structure that uses links to essential resources on the World Wide Web and an authentic task to motivate students' investigation of an open-ended question, development of individual expertise, and participation in a group process that transforms newly acquired information into a more sophisticated understanding. The best WebQuests inspire students to see richer thematic relationships, to contribute to the real world of learning, and to reflect on their own metacognitive processes" [2]. With March's thorough definition the spirit and pedagogies of the WebQuest where formulated, and although these remain almost the same over the last ten years, the wide resources and new tools offered by the constantly evolving Web have given the opportunity for more active and constructivist learning on the part of students, as well as more options for designing educational activities on the part of instructors.

In general, Web 2.0 trends and services have transformed the Web from a place for information retrieval into "a space for collaboration, conversation, and interaction; a space that is highly dynamic, flexible, and adaptable" [3]. In particular, current internet users can easily build pages, share photos and videos, and interact with each other, without having acquired advanced technical skills in advance. User-generated content includes videos, pictures, and other media that are being uploaded on the web, writings on blogs and wikis, comments on others' writings, videos, and pictures, etc. Moreover, Web 2.0 introduced a new design style emphasizing on usability.

Due to the aforementioned Web 2.0 user-empowering functionalities and user-friendly features, Dodge envisioned the future of his instructional technique as an incorporation of Web 2.0 trends with WebQuests [4]. However, most of the WebQuests do not take full advantage of current Web technologies but resemble more to Web 1.0 than Web 2.0 in terms of functionality and design. Unfortunately WebQuests keep relying on written content and lack interactivity, meaning the extent to which learners can actively participate in the process and collaborate with other learners.

Believing on Dodge's vision that WebQuests should embrace the benefits of Web 2.0 in order to engage learners, this paper presents how a WebQuest can be delivered through a dynamic media-rich Web 2.0 environment, incorporating Keller's Model of Motivational Design (ARCS Model: Attention, Relevance, Confidence, Satisfaction), so as to create a pleasant and meaningful online learning experience.

2. Integrating Web 2.0 services into WebQuests: BlogQuest

Amongst the various Web 2.0 services, blogs can serve ideally as the core of WebQuest environments. Instead of using the traditional Web 1.0 methods to design a static WebQuest, a blog service/software can be the optimal choice for delivering an effective and interactive WebQuest, given that blogs have made online publishing much easier and faster. A blog is a journal available on the web, whose authors simply create content via a web browser working individually or as a group, without needing much previous technical knowledge. Although blog content is primarily textual, media content -pictures, videos, audio clips- can easily be added. In addition, blogs' incorporated feedback systems increase collaboration and critical thinking. Thus, learners can publish questions they come across at any point while completing WebQuest tasks, and other group members or teachers can comment. Moreover, students may keep blog journals during their WebQuest activities [5].

Since there are many blog applications that could support a BlogQuest (i.e. a WebQuest that is being delivered via a blog) and most of them are available for free, the identification of a specific blog software would be useful. Available either as an online hosted service on WordPress.com or as a free download for installation on a server form WordPress.org, Wordpress is highly recommended as the blog software of choice [6]. Its well designed and user-friendly interface as well as its frequent upgraded versions that are published with additional features have placed it among the top open source Web 2.0 applications. Moreover, Wordpress is supported by a large community of developers that have built a constantly enriched directory of plugins and themes, extending thereby Wordpress's possibilities regarding features, functionalities and layout [7].

Even though WordPress is the suggested central platform for delivering a BlogQuest, specific strategies for implementing BlogQuests vary greatly and should not be limited. The following BlogQuest example, however, aims at illustrating several key uses and features.

3. A BlogQuest implementation example

The ARCS Model of motivational design introduced by Keller [8] is a well-researched and concrete approach that remains a powerful tool in the hands of teachers who wish to design and implement engaging lesson plans and instructional materials. ARCS stands for Attention, Relevance, Confidence and Satisfaction. In particular, attention is gained either by using novel, surprising and ambiguous events (perceptual arousal) or by stimulating curiosity via challenging questions or problems to be solved (inquiry arousal). Relevance can be established with the use of concrete language and examples with which the learners are familiar. Confidence is associated with the support provided to learners that will lead them to success (clear objectives, scaffolds, feedback). Satisfaction refers to the pleasant and rewarding learning experience students have. Feedback and reinforcement allow students to appreciate the results Therefore, Keller's ARCS model can serve as a useful guide for shaping the WebQuest's basic components [9].

Further down, the provided general description of each of the five WebQuest building blocks followed by an implementation example on the BlogQuest "The virus, the disease and the social problem" makes the correlation of the ARCS model and the WebQuests essential elements more apparent.

3.1 Introduction block

In general, the purpose of this section is to both prepare and hook the learner. The teacher sets the stage, provides some background information, often involving a hypothetical role or scenario, and communicates the big question (essential question, guiding question) that the whole WebQuest is centered around. In particular, in the introductory block of the BlogQuest, a brief slide presentation entitled "Investigate and Discover the Answer to the Big Question" has been embedded in the blog via the SlideShare online service that is supported by Wordpress. [Keller's Model: Attention]

3.2 Task block

In general, in this section the teacher describes clearly the culminating performance or product that drives all of the learning activities. The task focuses learners on what they are going to do. Thus, it should be interesting and meaningful. This could be a problem or mystery to be solved, an opinion to be stated and defended, a product to be designed, complexity to be analyzed, personal insight to be articulated, a summary to be created, a persuasive message or journalistic account to be crafted, a creative work, or anything that requires the learners to process and transform the information they've gathered [10]. In particular, in the task block of the BlogQuest an invitation to an act against AIDS, from the Ministry of Health and Social Solidarity, that calls students to create a guide entitled "The Virus, The disease and the Social Issue, has been uploaded as an image. (The invitation is hypothetical, but creates an authentic context). Students are to work on three groups. Each group will investigate one of the subtopics of the guide and create a report on the subject. Before learners begin their mission, they are urged to read in advance the evaluation rubric (found on the Evaluation Block of the BlogQuest). [Keller's Model: Relevance]

3.3 Process block

In general, in this section the teacher presents the steps that learners need to follow in order to carry out the task successfully. Learners will access the resources that the teacher has identified as they go through the process block. A set of information sources needed to complete the task may include websites, searchable databases on the net, video/audio material, books, other documents physically available in the learner's setting. The teacher might also provide here some guidance on how to organize the information gathered. In particular, in the process blog of the BlogQuest, 7 steps for task completion are found.

1. With the help of their instructor, students form three groups. Each group will undertake an online investigation on one of following topics related to the issue of AIDS:
   - The virus HIV: origins, evolution, composition, structure, copy, reproduce
   - Acquired Immune Deficiency Syndrome (AIDS): ways of transmission, prevention methods, symptoms, way of dealing with disease, and life extension
   - To social problem created by the disease: mortality rates, which groups are most affected, organizations that take action on the matter, stereotypes and prejudices surrounding the carriers of AIDS

2. Students should specify each group member's role and divide the recommended resources (Resources types: youtube videos, podcasts, audiobooks, webpages, simulations, pdf prochures, online documents, images).

1. Each group member investigates the resources and gathers the information related to the topic his group has undertaken. Students may ask questions and communicate with their team asynchronously and the teacher via the forum that is has been embedded in the blog via a well-functioning Wordpress Plugin.

2. Each group members collaborate and chat online in order to synthesize a report in the format of a Google document. (For the specific format of the report a template is provided) and when having completed it they are to invite their instructor to review it.

3. After receiving feedback commentary on their report, students can make any adjustments they think may improve their document.

4. Students share the final version of their Google Doc on the BlogQuest under the specified field that responds to their group's topic.[Keller's Model: Confidence]

5. Students submit their comments and impressions on the conclusion page

3.4 Evaluation block

In general, in this section the teacher provides a description of how students' performance will be evaluated. The assessment rubric should align with the culminating project or performance, as outlined in the task block of the WebQuest. In particular, an assessment rubric, initially published as a document on the online service Scribd, has been embedded on the Evaluation Block of the BlogQuest to the disposal of students allowing them to view at any time the criteria by which their final deliverable will be evaluated. [Keller's Model: Confidence]

3.5 Conclusion block

In general, this section brings closure to the quest, reminds the learners about what they've learned by completing this activity or lesson, and perhaps encourages them to extend their to extend their thinking into other content beyond this lesson -rhetorical questions or additional links to encourage students. In particular, in the Conclusion Block of the BlogQuest, students are invited to reflect on their learning experience by leaving their comments. Students express themselves and state the most fascinating thing they learned while carrying out their task. Wordpress's functionality for submitting comments makes this very easy for students. [Keller's Model: Satisfaction]

References

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