Our Class Website: Evaluation of a Resource Website for Yearbook Students

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Abstract: The production of a high school yearbook demands high-level skills, which require time to learn. However, this 10th grade yearbook design course, offered at a private high school on Oahu, has limited face-to-face instruction. Consequently, students need to complete many of the assignments independently. The instructor created a resource website to augment learning materials. The purpose of this instructional design project was to evaluate the effectiveness of this resource website. The instructor conducted a survey and "talk-aloud" interviews to assess the students' usage of the course website. The majority of the survey respondents claimed that they consult the website at least once or twice during a 6-day cycle. The majority also agreed that this resource helped them become more productive members of this course. The talk-aloud interviews suggested that there was little to no user disorientation while navigating the website. In general, students reacted positively to the addition of this resource. This study implies that a website, designed with respect to characteristics of effective websites, has a positive effect in the affective realm. However, the majority of the students still felt that more face-to-face class time would improve the quality of the instructional experience. This project may be helpful to any instructor whose class is expected to produce a product—a publication or student performance—but who has limited class time to teach necessary skills.

Introduction

The annual yearbook is a quintessential American tradition. Delivered at the end of the year, the book showcases the school community, its students and their achievements. Producing a meaningful yearbook demands developed skills in journalistic research and writing, photography and graphic design (Akers et al, 1999). These skills have to be taught; students do not necessarily enter the course with these skills.

The yearbook design class in this Oahu, International Baccalaureate (I.B.) private school met once a cycle (one cycle is 6 school days) throughout the year. This was far less class time than the hours of a traditional yearbook class, which typically meets just as many times as an academic class—roughly 4-5 hours each week.

Stringent publication deadlines required students to work on pages and complete them quickly, and there was little class time to train or instruct students before pages were due. In addition, there was no prerequisite course that developed skills in graphic design, photography or journalistic writing.

This yearbook class was made up of 19 high school sophomores. Students were not selected through any process of recommendation. Registration was on a "first-come, first-serve" basis until the class was full. In addition to these students, one senior and 3 junior high school students elected to edit the yearbook for community service hours. The editors met weekly after school and on teacher workdays. Several 10th graders from the class also came to these editor meetings, in addition to attending the class. Attendance at the editor meetings was varied and irregular.

Yearbook is a challenging and complex group project with very little face-to-face time to work on it. At this school, there were two separate groups of students, working at different times, on a single designed product. As the instructor of the course, I could not scale the workload back to match the number of class meetings, as the workload was established by the production needs. A significant amount of the work had to be completed online, outside of class time.

To provide a resource that students could access whenever they needed or wanted to, I created a resource website, which is viewable at http://ljayearbook.weebly.com. The website has been in use since the beginning of the 2012-2013 school year. The website was designed to keep students apprised of the course schedule and requirements, and to facilitate communication and collaboration between the two groups of students. My intention was to create a resource that became the go-to site for anything about this project.

The project may be helpful to any instructor whose class is expected to produce a product—a publication such as yearbook or newspaper, a class play, or other student performance—but who has limited class time to teach necessary skills.

Background

A fundamental concept rooted in the International Baccalaureate mission is "communication". The I.B. program recognizes the central role that communication—both verbal and non-verbal—plays in learning and education. This concept also touches on the necessity for students to understand and appreciate "different modes of thinking and expression, including the arts and the use of information and communication technology (ICT)" ("The Middle Years Programme: A Basis for Practice", p. 4).

Delivering some course content through the web allows students to experience a "different mode of thinking and expression" as described in the I.B. document quoted above. It also allows instructors to focus more on class discussions and critique of student work (George-Palilonis, 2011). In addition, students react positively to the use of multimedia, particularly when the curriculum is focused on visual communication (George-Palilonis, 2011).

As a model of *effective* information and communication technology (ICT), the yearbook course website should adhere to design principles described in the research literature. Table 1 summarizes these findings.

Table 1. Characteristics of Effective Learning Websites

Description	Implementation Examples	Citation
Unambiguous and continuous view of navigation	Use of a content menu that encourages learner to interact with the content in a non-linear direction. Menu structure allows fast search and retrieval, easy downloading of files. Menu appears on every page of the site.	(Merrill, 2013; Lynch & Horton, 2002, Webster, 2006)
Format indicates the structure of the course	Navigation mirrors the Scope and Sequence	(Merrill, 2013)
Coherence Principle	Avoid irrelevant and distracting media; all graphics and text should pertain to the content	(Merrill, 2013; Mayer, R., 2001)
Maintain the narrative flow through the pages	Place links on a separate page so they don't disrupt the narrative.	(Horton, 2000; Lynch & Horton, 2002)
Use format to differentiate Instructional Events	Use headers, fonts, graphics to help viewers orient themselves in the website.	(Merrill, 2013;Horton, 2000; Lynch & Horton, 2002)
Direct Access—allow users to get information in the fewest possible steps	Viewers prefer menu items that have at least 5-7 links. Real content is only a click or two away from the main menu.	(Lynch & Horton, 2002)
Interactivity promotes learning	Website allows students to interact with classmates and instructor outside of class, or to review each other's work. Viewer controls how they interact with the site (non-linear navigation), and can start and stop multimedia.	(Merrill, 2013; Horton, 2000)
Multimedia Principle	Retention is improved through words and pictures rather than through words alone. Use graphics and photographs to illustrate text.	(Mayer, R., 2001)
Online resources expand study outside of class requirements.	Extra resources in the form of video tutorials, self-assessment questionnaires, or a wiki-style encyclopedia which can be used as a peer to peer reference tool.	(Palaigeorgiou, 2011)

Project Purpose and Description

The purpose of this instructional design (ID) project was to evaluate the effectiveness of a resource website created to augment learning materials for a 10th grade yearbook design course at a private high school on Oahu. My intention was to evaluate how, and how frequently, the website was used. This ID project may provide insight into these questions:

> How can the navigation of the site help students understand the scope and sequence of the course?
> Does the site aid in understanding the purpose of the course?
> Does the site aid in encouraging collaboration?
> How can the organization of the site be improved?

The results of this ID helped me revise and improve the class website. Ideally, the navigation and organization of the site was so intuitive that it became invisible, and that students used this site frequently and without issue.

Methods

Instructional and Design Strategies

In designing the website layout, I considered 18 learner outcomes, as well as our production schedule. I planned instructional units to coincide with production deadlines, and designed the navigation to reflect the scope and sequence of the yearlong course (Merrill, 2013). Each unit appeared as a menu option on a sidebar menu on the welcome page. This allowed students to access content within one or two clicks (Lynch & Horton, 2002). Each sub-item in each menu option shared the same photographic header with other sub-items in its group; this also helped to orient the user (Merrill, 2013;Horton, 2000; Lynch & Horton, 2002).

I chunked yearbook skills into five categories: theme, photography, writing, typography, and layout, and created pages for each of these skills. I found or created learning objects to place on these pages to expand learning outside of class (Palaigeorgiou, 2011). Class materials, assignments, links to resources, and contact information were contained on this website. In addition, students in the yearbook course maintained a blog as part of their class assignments, and links to student blogs were kept on a separate page on this website. Links to outside resources were kept on a separate page or at the bottom of pages to avoid disrupting the narrative flow of the site (Horton, 2000; Lynch & Horton, 2002).

Technologies

I constructed the website using a Weebly template. Weebly uses a global navigation design, which means that the sidebar menu, or table of contents, remains on each page, and this aids in reducing user disorientation (Palaigeorgiou, 2011).

I created a survey on Google forms with reference to two online sites that detailed survey research (Barribeau & et al,1993-2013; Trochim, 2006). The survey was designed to

assess student usage of the website, as well as their attitude and evaluation of the site. At the time of the survey, the participants had already seen and used the site. The survey consisted of three demographic questions, eight questions that assessed how they used the website and how frequently they used it, six questions that asked the learner to evaluate the website and to suggest improvements, and four questions that asked about the yearbook course in general. The format of the questions included multiple-choice (10 questions), Likert scale response (3 questions), and free-response (7 questions).

Data Collection

Survey participants were self-selected from the class of yearbook students. The University of Hawaii Institutional Review Board (IRB) required the researcher to obtain written assent from the participant, and, if the participants were minors, written consent from their parent or guardian. In addition, data collection needed to take place outside of class time. These requirements eliminated students who either forgot to return their forms, or who were reluctant to use personal time to take a survey.

I conducted a practice talk-aloud interview with the school's music teacher. Then, from the pool of survey participants, three students agreed to come in after school for a one-on-one, talk-aloud interview. The first two student interviewees were consistently high-performing yearbook students. The third student had a slow start, but grew in skill steadily throughout the year. All three interviewees were female.

These interviews ran roughly a half-hour each. I read from a script, so that I would be sure to give the same instructions to each participant. After explaining the purpose and process of the interview, I asked the participant a few general questions about their usage of computer technology in the classroom. I showed them the website. Before they clicked on anything, I asked them for their general impressions of the site. I then gave them a series of short scenarios, and asked them to conduct a task. The tasks were typical tasks that a yearbook student might need to do. The participant's responses was recorded with Screen-cast-o-matic, a screen capture tool.

Results

A total of nine students took the survey. Eight of the surveys were taken on paper; only one student elected to take the survey online.

Demographics. Of the 9 survey respondents, five were male and four were female. All of the respondents were in the 10^{th} grade yearbook class; 67% were also student editors. In the yearbook class as a whole, only 37% were student editors. All of the respondents (100%) were either very comfortable, comfortable, or somewhat comfortable with using new technology in their classes. None of the students claimed to be any degree of "uncomfortable" with new technology.

Frequency of use. The majority (6 students) of the respondents said that they visited the website 1-2 times a cycle.

Usage. The most common use of the website was to read assignment descriptions; sometimes students used the site to review class presentations, or to read other student blogs. The majority of students also used the site to occasionally link to the other yearbook sites.

Attitudinal Responses. The majority of students agreed, or strongly agreed, that the website helped them to be productive members of the yearbook staff. The majority also strongly agreed that the site helped them understand how their assignments were assessed. A slim majority of the respondents agreed that the site helped collaboration between student editors and staff; three students were neutral and one student disagreed about the site aiding collaboration.

Free Responses about the Website. In general, students responded positively to the addition of this resource. Common responses were that the website was "easy to navigate", "clear", "very organized", and "easily accessible."

None of the students found anything on the site confusing. None of the students would make any changes to the site; one student noted that course websites were not used in the other classes, so she or he "didn't know what to expect from educational websites."

Responses about Yearbook Class. The majority of respondents preferred to meet twice a cycle, rather than once a cycle. In the free responses, students reiterated that they needed more class time, and made several suggestions on how that could be arranged. One student suggested that yearbook replace advisory, another proposed that P.E. be cut back to only once a cycle in the first semester so that yearbook could take its place.

Some responses suggested an expansion of the curriculum to learn more about art and photography, or to do more with photography. One response suggested "more clarification". Two responses expressed a desire for the other students to complete their pages on time, as well as a desire for more consequences for unfinished work.

Talk-alouds

All of the respondents completed nearly all of the scenarios with little hesitation. They spoke confidently as they demonstrated what they would do. However, each respondent had one scenario that puzzled her. One student stumbled briefly over scenario 8, which asked students to find a slideshow on the welcome page; however, she found it within a few tries. Two of the students and the music teacher stumbled on Scenario 7. The music teacher could not find a link; the link was on the welcome page, and scenario 6 left the respondent on the blog page. The wording of scenario 7 confused one of the students; she thought that she was looking for a template, which actually existed on the yearbook company website. The other student found it after three tries; however, even when she was on the right page and was scanning through the list of options, she passed over the item on the list. Both students were unsure of what they were looking for.

Implications or Discussion

The survey and talk-alouds supported previous research, which indicated that the use of online supplemental materials such as this website promotes student satisfaction (George-Palilonis, 2011). Responses implied that there was little or no user disorientation (Merrill, 2013;Horton, 2000; Lynch & Horton, 2002; Webster, 2006). The layout of the site helped students visualize the organization and structure of the course, which helped them to engage more fully in learning (George-Palilonis, 2011; Merrill, 2013). I also noticed that the website reduced or eliminated requests for repeating information, extra copies of handouts, or questions about assignment due dates. Information of that nature was always available on the website.

On the whole, respondents were less emphatic about whether or not the website contributed to collaboration with the editors. This was not surprising, as the participation of the editors fluctuated greatly throughout the year. The editors were voluntary, so while I could have requested that they use the website and respond to the staff, I could not require them to do so. A learning or communication tool still requires active, human engagement to be effective.

While students felt that they didn't have enough class time to complete their assignments, it is technically possible for students to work independently and to complete assignments online. However, in a traditional school setting, the amount of outside work is typically proportionate to the amount of "seat" time. In the past, our student handbook had published the number of homework hours students could expect for each credit hour. However, in the school's I.B. system, courses were not assigned credits. The school did not have an institutional policy that guided the workload. Consequently, student expectations may be primed by the course schedule. In other words, students would not expect as much work, and certainly not more work, for a course that met for only a third of the time of their other courses.

As the students interacted with the site during the talk-alouds, I observed that they were recalling past experiences with the site, or past demonstrations. This suggested that their easy comfort in navigating the site was due, in part, to in-class demonstrations. The third student explained that she was a visual learner, and she liked that I showed them how to use the site in class. According to this student, if she had just been given the site's URL, she would not have learned as much. She also said that the pictures on the site were helpful because "sometimes I get bored with just reading", and the pictures were "cute, or they show what's going on, what we might be doing on the website, or in the class."

As mentioned above, each respondent had one scenario that perplexed her. However, it is unclear whether the problem existed with the website, or with the interview question. Before altering the site, I would need to clarify if a problem really exists with the website navigation, or with the measurement tool.

Throughout the process of gathering data, I realized how much the wording of the questions influenced the responses. For example, when I asked respondents to find a

rubric, I gave them the date of the assignment. This information directed them to search for the rubric by date. The use of this leading question obscured the way students might actually search within the website. Upon reflection, I wondered if I should have given assessment tools a separate page in the website. As assessment plays an important role in learning, enabling students to assess the rubrics directly (Lynch & Horton, 2002) may have been valuable.

The yearbook course used four online resources. In addition to this course website, I created a Wikispaces site, which everyone can edit (Palaigeorgiou, 2011). In addition, there was the yearbook company's website where the book was designed, and a school-wide course management site where student grades and assignments were posted. I was concerned that this would be overwhelming for the students, and asked them to comment on this in their talk-aloud. None of the three students found the number of sites problematic; they understood that each site had a discreet function and purpose.

I had considered integrating this Weebly site into the Wikispaces; however, Student 1 said she found Wikispaces confusing and preferred the Weebly site. Student 3 said that the class needed all four sites, but then implied that the Weebly was the primary "go-to" site. It is best, she said, if the links to all of the sites were kept on the Weebly site. That way, she said, "if we ever do need help, we can find our way back here."

Conclusion

Further research is needed to determine whether or not students *learn* more in a class which uses a course website. However, the existence of this resource seems to have had a positive effect in the affective realm. When the website design takes into consideration the characteristics of effective websites, students perceive that class materials are organized, accessible, and clear. The visual aspects of a website helps to engage and motivate (Mayer, 2001).

Nonetheless, online resources do not entirely compensate for limited face-to-face time. There are many other factors, such as the course schedule, or student perceptions of workload, which impinge on student productivity and attitude. These factors are outside my immediate locus of control. However, these variables are of interest to the school administration, which is currently examining the design technology course hours and requirements.

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