Client Project:

Campbell Middle School 8th grade Science Webpage of Essential Standards and Learning Targets

1. Client

Our client were 8th grade science teachers at Bernard Campbell Middle School. We worked with our client, specifically 8th grade science teacher Courtney Haines to identify the target audience, the conditions under which the use of the product would take place, and what changes Ms. Haines expected as a result of the instruction.

2. Topic for Instruction

The topic addresses a specific educational need: the need for students and their parents to have access to the districts’ new essential standards and learning targets, beginning in the 2013 and 2014 school year with the chemistry unit and expanding to all 8th grade science units in the 2014 and 2015 school year. The importance and need for the instruction is that the district is moving to balanced assessment and standards based grading. Students will be assessed and accountable for their mastery of essential standards within units and the specific learning targets for each essential standard. Currently students and parents do not have access to view to the essential standards and learning targets on which they are being assessed throughout the year, throughout each unit. Ms. Haines and the other eighth grade science teachers needed to develop an 8th grade science webpage that students and parents could use to access the essential standards and their learning targets.

3. Target Audience

The target audience is the 8th grade science students and their parents. The 8th grade science students at Campbell Middle School are generally proficient and using and navigating the Internet including the school website where this webpage will be posted. The motivation of the students and their parents in using this website is to access their goals for learning for all 8th grade science units throughout the entire school year. The challenges that we face includes presenting the learning targets with each essential standard in a language and lay-out that is student and parent friendly while adhering to the exact learning targets and essential standards written by the district writing team.

4. General Goals and Performance Objectives

Ms. Haines and the other eighth grade science teachers specified that their goal was that students and parents could use to access the essential standards and their learning targets on their own. The sub-goal includes presenting the learning targets with each essential standard in a language and lay-out that is student and parent friendly while not deviating from the exact learning targets and essential standards written by the district writing team.

Performance Objective:

- 100% of students and parents will be able to access all the learning targets of a unit at any time
- The criteria will be achieved in the 2013-2014 school year for the chemistry unit and in 2014-2015 school year for the entire academic year of units in 8th grade science

Sources for Instructional Goals
Our primary source for instructional goals is our client, Courtney Haines and the other 8th grade science teachers at Campbell Middle School.

Additional Sources for instructional goals include

- guidelines from the LSR7 school district;
- balanced assessment training guidelines;
- knowledge of experienced 8th grade science teachers at Campbell Middle School;
- national science standards, the Next Generation Science Standards;

5. Field Trials

We used the rapid prototyping approach to design, recognizing that the first iteration of a design is not likely to be perfect. Therefore, field trials were critical to our design process and achieving the goals of the client project. Our field trials included Alpha testing conducted while the overall design is still being changed and beta testing conducted once the features are not changeable any more.

1. Alpha Testing

Our Alpha testing began when we believed that the project has addressed most of the goals. During our Alpha testing, sought user feedback so that we could gain insights about our design.

- Experts Opinions

  Our Alpha testing began by drawing on the experience of experts who understand the instructional goals and the abilities of the target audience. One expert we sought included an 7th grade social studies teacher who had implemented standards based assessments in her classroom. She shared with us a PowerPoint and handouts explaining how to present essential standards and learning targets to middle school students in a way that both the students and parents could understand. She has mastered this goal for 7th grade social studies, although she did not post the essential standards and learning targets online for the students to access. Instead she distributed essential standards and learning targets to students in hard-copy paper packets that she shared with us. She also posted them on bulletin boards in her room. In addition, we sought the expertise of the LSR7 district secondary science curriculum coordinator. He had recently successfully posted the essential standards and learning targets online in schoolnet so that they would be easily accessible to teachers. We demonstrated the basic features of the design while seeking the experts’ opinions and feedback and implementing their ideas.

- Observations of Target Audience Learning

  Our second phase of Alpha testing was conducted with the members of the target audience, 8th grade science students and parents, operating the instruction as opposed to us demonstrating the instruction. During this stage, we, the designers, took an objective stance in making notes of problems that the learners encountered in operating the project. We used these notes to revise the instruction so as to improve ease-of-use for the target audience and meet the instructional goals.

The feedback from Alpha testing caused us to make the following changes:
• remove the number and letter codes of each learning target associated with each essential standard because we found that it confused students and was not relevant to their understanding of their learning targets.
• Remove the “year at a glance” and instead include individual pages for each unit

2. Beta Testing

We next conducted beta tests. During the beta tests, the "features" of the program are fixed. We conducted beta testing in settings that reflect the anticipated conditions under which the project will be used. We Beta tested the website by having students use it on school computers using all the web browsers installed on the school computers. We also Beta tested the website on the computers at the Mid-Continent Library which is used by many students who do not have Internet access at home. We also had parents and students Beta test the website on their home computers and personal devices, as parents and students would in the 2013-2014 school year.