

## **Growing a Shared Understanding and Collaborative Process using Qualitative Research Methods to Design a Learning Assessment Outcomes Reporting Tool**

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Responding to the call for transparency and accountability, colleges are faced with the challenge of developing systems for organizing and sharing learning outcomes assessment over time. At Valencia College our website emerged as a partial solution over a span of two years. The program and discipline assessment plans uploaded and archived on the site created the foundation for our recently launched Online Organizer, which is an online form linked to our database that has been designed to gather and track program assessment reports and results each year. Designing and developing the Online Organizer over the course of a year, we learned ways to create successful partnerships with programmers and others working in the technology office. Qualitative research techniques adapted from the usability testing of software programs provided ways to explore and refine our shared understanding of the assessment process. We are able to outline the approaches that can be useful when creating and implementing assessment systems for other campuses as we look back and describe the process that unfolded.

### **How the Project Began**

Several strategies that emerged for strengthening the collaboration between Academic Affairs and the Office of Information Technology (OIT) were used alongside the qualitative research methods that we adapted. These strategies and methods will be of interest to others who are planning to develop their own tools for documenting and organizing program assessment activities and impact. The process and paper forms that had been fundamental to our assessment process since 2010 gradually led to the development of our [Website](#) which was recognized in 2012 for its [transparency and accessibility](#). We needed to move to a more dynamic and flexible system and it was necessary to grow the application from the culture and practices already in place. Off--the--shelf products were not suited to supporting the system we had developed. In this way the technology did not drive the work – but was developed to advance it and to meet the needs that were not already being met.

## The Qualitative Research Methods Used

Throughout the process faculty members and administrators gathered in computer labs to try out and critique the Online Organizer. Within a cycle of discussion, review, and development we used informal focus groups and modified versions of cognitive interviewing techniques (Dumas & Redish, 1993; Ericsson & Simon, 1993.) The gift of usability testing is that it asks participants to talk aloud about their expectations of the assessment process, articulate their priorities, and visualize the systems on paper and on screen in ways that are not always possible in the context of a typical meeting. Everyone's eyes are turned toward a shared product rather than toward each other. Drawing upon qualitative research methods, usability studies can include the use of "think aloud" protocols with participants trying out an application as well as paired---user testing (asking two participants to explore the application or to complete activities together.) Focus groups may also be used, in which four or more users participate in discussion (Molich & Dumas, 2008, p. 264.)

## Using Focus Groups to Develop the Design

A few key questions focused on the assessment process rather than on technology emerged at the beginning of the project, and we held informal focus groups to ask:

### Key Questions Asked in the Design of the Project



Understanding the assumptions of the participants helped us to move forward, and helped to create a working relationship between the faculty members involved with the process and our OIT colleagues. This activity also began to shape our shared understanding of the audience and their needs, while also better informing their decisions about the kinds of design tools and programming applications that we should explore together.

This meant that in my role as the project manager, I needed to understand their perspectives, the instructional design model for the application from the programming perspective, along

with any constraints related to the database, computer coding, and resources available. At the same time a shared understanding had to grow for all involved regarding user practices, expectations, and needs as they related to the annual assessment cycle already in place.

### **“Think Aloud” Protocols and Activities**

We gathered a diverse group of testers representing a wide range of roles and perspectives across the college. A few activities which were the most helpful for our testing of the initial interface for the Online Organizer included: 1) the creation of a script to ensure that we were consistent in the directions we gave participants; 2) the development of a task list and a set of scenarios for participants to respond to while using the application; 3) an outline of the questions with responses recorded by a facilitator; and 4) printed copies with draft sketches or screenshots of the application being reviewed for notes to be taken by all involved in the process.

If you adapt these activities for your own usability study at the end of the session the facilitator should be able to document 1) user errors (both those that are critical and those that are not); 2) the number who complete the application without any problems or errors at all; 3) the actual amount of time it takes as compared to what is expected; 4) other comments offered such as satisfaction, etc.; and 5) recommendations from the participants.

### **Facilitating an Emergent Design Process**

The partnership between assessment and technology was significantly shaped by this process and it also helped to define our approach to instructional design. We used an emergent design instead of using a formal process with the design laid out from the very beginning in a contractual form. Moving from pencil sketches to a working prototype to the final product allowed us to move more quickly than if we had finalized a design upfront, coded it, then had to go back and negotiate changes based on user feedback. The expertise of the designers focused our conversations and educated the wider group about project development and planning. We also learned that:

- Early on when working with users to test the system we had to distinguish between the tool and the design process – separating the Online Organizer (which we were designing) from the content that would be entered into it (that we were not designing).
- In this formative process users reviewed a similar online interface at the college and were asked to report what they liked about it, responding to a set of simple questions we provided. This let them see an online system in action and we were able to compare and contrast their comments to those documented within the usability study. It also gave users practice articulating their thoughts and asking questions about the design.

- “Break it” was one of the goals given to users when we were testing as we wanted them to explore and interact with it – rather than engaging with us. We had to let people struggle and articulate their thoughts and problem-solving aloud, rather than stepping in and explaining or rationalizing design choices. We kept people proactive and engaged in the growth of the project over time by encouraging open thinking about the design and the features of the system. We were seeking to be responsive to the participants in the process; we were not asking them to confirm what we had already decided in advance.

Over the course of the development as project manager I needed to narrate the development process, continually share and revise the timeline, document the decisions made, and remind others of key decisions each step along the way. As a result of the nine month development cycle the Online Organizer has been implemented this year to support and structure the documentation of assessment activities and impact to advance the college-wide commitment to improving teaching and learning.

## References

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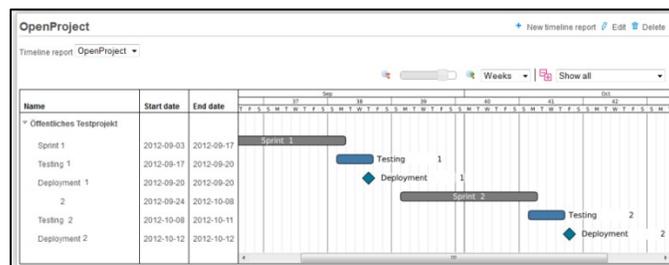
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## Side Bar 1

### Possible Tools to Use When Mapping Out Your Timeline and Design

Using a Rapid App Developing Tool (RAD) and mapping out software requirements and specifications (SRS) basic tools helped us to sketch out and update our ideas over time, including pencil and paper, the Paint program, and PowerPoint. Open Project and Pencil Project are freely available online and can also be helpful.

Open Project ● <https://www.openproject.org/>



Pencil Project ● <http://pencil.evolus.vn/>(stencils)



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