Presented for the PLS Online Course Development team at the 2009 TCC Conference:
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We were going to tell you about the steps we took to find and implement our LMS…
We thought we could show you a presentation with a bunch of steps and bulleted lists but…
LMS: The Final Frontier

This is the tale of the PLS Online Development team

Its one year mission

To explore various LMS systems.

To seek out new Web 2.0 tools and functionalities

To boldly go where we had not gone before.
Who Are We?

ABOUT US - BY NATALIEK

PERFORMANCE LEARNING SYSTEMS
* Courses offered to educators across the country
* Online Course Development Team of Four
* Facilitators/instructors
The task was a bit intimidating.
We needed to define what we were looking for.
So we set off on our adventure.

In this presentation we’ll focus many only the ‘journey’ not the destination (final LMS system selected).
We investigated four systems total, two of which we rejected and two of which we decided to move forward with for testing. Our investigation included attending webinars, reviewing feature documentation, and trying out demos ourselves to see what fit our process. One thing we found was that some of the systems really were designed for very linear courses with lockstep progress, which isn’t a good fit for what we wanted.
Panel 1:

We knew that we were having usability issues in our current LMS. Usability was an extremely important requirement for our NEW LMS. Successful users meant successful teachers and learners. So we decided to embark on a full-on usability test of each of the 2 LMS final candidates.

As part of our usability test planning we needed to identify any and all user groups that would use our new LMS. Our two main user groups were ‘facilitators/instructors’ & ‘students.’

After selecting our testers we built test environments for each LMS candidate (in our case Sakai & Moodle). We then decided that we would have to create two separate testing areas for each user group (students & instructors). So we needed to create 4 testing environments in all.

Good usability testing is a lot of work, but as you will see in the next phases of our story it’s well worth the effort.

Panel 2:

After we selected our testers and planned our test environments, we weren’t done with planning yet. We took some time to identify every task we wanted to test in the system such as Post grades to the grade book, Using Forums and Posting Announcements.

We included both tasks we currently did and tasks we wanted to do in our new LMS including new Web 2.0 functionalities. – such as adding blog posts and contributing to the wiki and using chat for synchronronous discussion.
Now that we planned our Usability test we needed to implement it.

**Panel 1:**
We selected usability testers (both facilitators/student roles):
   1.) Inexperienced users
   2.) Experienced Users.
   
The idea was to make sure that all levels of skill were represented as usability testers.

**Panel 2:**
We developed our “User Tasks” for testing from the task list developed during our “Usability Planning.”

All testing of our tasks from our “Task List” was done either “in person” or using a virtual sharing tool called “Adobe Connect.” Each of us acted as a test observer and recorded additional student data/feedback. During the testing session, users would attempt the tasks from the task list and we would record their success or failure at these tasks.

**Panel 3:**
If users had issues we recorded these in our Usability Test Log (used Google Survey/Form to collect data).

We would use this data to help us make our final decision on choosing a LMS. We were looking for an LMS that had few usability issues.

This data also proved to be helpful when we needed to develop our “Training plan and training content.”
Panel 1

Before testing the two systems chosen, facilitators and the instructional design team went through some training on both systems prior to the pilot courses. At the conclusion of the training, the team created Pilot Course sites in each system using identical content.

Panel 2

However, since there were differences in the systems, adjustments were made to the Pilot Course sites based on the usability testing for each system and in general. A PLS facilitator served as instructor for both courses in an effort to eliminate unneeded variable and detractors.

Since there were login issues with the second pilot, unrelated to the LMS itself, we ran a second pilot course for it. Students from both previous pilots and some new additions were included in the test.

Panel 3

After a lot of discussion and assessment of feedback from the pilot participants, we chose our new LMS!
One we decided which LMS we were using, we had many more decisions to make about customizing the system to our needs.

The system configuration included three major components:

- **Tools**
- **Roles**
- **Permissions**

**Tools**
One of the great advantages of an open source product like Sakai is that you have lots of different choices of tools to use. Some of those tools overlap; Sakai has two different options for discussion forums and for internal messages/email. At this point we were just choosing what tools would be easily accessible for courses and which would be hidden; we can make more decisions about which tools to use each time we create a new course.

**Roles**
Sakai uses roles, which basically let us set up a group of permissions. We had to decide what roles we wanted to use and what to call them. In our case, a “guest” is someone with very limited permissions who might see part of a course for demonstration purposes. “Observers” are the people who observe and evaluate the facilitators. Our courses are created by us as course developers; facilitators don’t build the courses they teach.

**Permissions**
For each tool, we determined the permissions level for each role. Each tool actually has multiple permissions. Consider the permissions just for the chat:

- Guests and Observers can view chat archives but not post anything
- Students can chat in any chat room, view archives, and delete their own messages
- Facilitators can create new chat rooms and delete anyone’s messages

All told, the permission configuration in Sakai includes several hundred settings that were decided during several meetings between our team, the facilitator manager, IT, and the vendor.
Panel 1:
Our usability test provided us with the template for our training in two ways.
1) We now had a general “Task list” for training items. The steps we outlined for each task were used to develop our training simulations in Captivate.
2.) The usability testing alerted us to “problem spots” within the system that required additional training or explanation.

Panel 2:
Now one thing we forgot to mention…ALL OF OUR FACILITATORS/STAFF ARE SPREAD ALL OVER THE COUNTRY.

As you can see from our second panel, our training needed to be completely VIRTUAL.
Our training had three different methods or application and this included:
1.) A live introduction to the system using Adobe Connect.
2.) Individual practice sessions – our staff would review the training simulations and documentation and then practice the tasks on their own.
3.) Asynchronous group practice in a “practice course” in Sakai. Our staff would practice using the system in a ‘live environment’ with their peers.
Panel 1:

There were five waves of training. The first wave was for the online course development team. Although we had already been through this training we were able to pinpoint areas that might be troublesome for our course mentors and facilitators. We were then able to focus on those problem areas during further training sessions with those participants.

The next wave of training was for IT and administrators.

Following that was the fall field test facilitators. These facilitators were teaching classes before the staff-wide training was completed; therefore, they had a basic walkthrough of the LMS, each facilitator with a course developer.

Panel 2:

Next came the course mentor training. This core group was trained first so they could mentor the other facilitators.

We had originally planned to only do one live virtual session but ended up doing two since the first went over the time limit.

This training was coupled with practice courses. Each mentor was given a set of tasks to complete with a practice course. They also had access to the facilitator and student tutorials that we developed as part of the Orientation week. The online course development team was present at each of the sessions to help clarify information about Sakai as well as act as tech support for Adobe Connect.
Panel 1
The process of converting courses from our original LMS to our new one was over 30 steps. It was time consuming as many of our courses took over 20 hours to convert.

We developed a checklist to help us through the process and to speed up the process.

Panel 2

The conversion steps are broken into four main categories: course documents, module numbers, web content, and LMS content.

Course documents included updating activity checklists with new module numbers and new points to match the new rubrics. Syllabi were moved to a new template with updated national standards, as well as adjusting the number of modules and points.

Module numbers were changed from 9 to 8 as the part of a separate improvement to our courses. Converting to the LMS did not require it however it was something that we had decided to do earlier as part of the conversion process. Fortunately, a fair amount of that could be done automatically in Dreamweaver, the program we use to build the web page content for our courses.

Web content was basically removing references to our previous LMS and including a new Introduction forum. In some courses, directions and content were moved from external tools to the built in ones in the new LMS. Or, activity types were
Even though the majority of our work with the LMS selection and conversion is now done, we still had some tasks to complete.

Some ongoing evaluation is needed with any project of this scope. First, we conducted a survey to determine what parts of the training were most helpful. That gave us some information about what worked well and what we might not do again, although all the results were very positive. Second, we’re conducting a second survey of all facilitators who taught in January to see what skill gaps we might need to address.

We have a team blog that we use for communication within the company, so that’s the first place we told our story. Over the course of two months, we explained each stage of the process, one per week. And of course, the other place we’re telling our story is here.
What we would do next time.

• Change Management - Maybe communicate more with Facilitators on the process ahead of time.
• Been more Transparent with the process in general/why we were making the decisions.

Keep the same:
• Training stages… multiple waves – Also we offer additional support in a Facilitator Zone or workspace for Facilitators.
• Survey of users…
Q & A

1. Investigation
2. Usability Testing
3. Pilot(s)
4. System Configuration
5. Training Development
6. Training Implementation
7. Course Conversion
8. On Going Evaluation