Method

Problem Identification Process

The process of creating a standardized test started with a comparison of the interfaces of version 3.0 of the Enterprise Edition used with the "Jericho" prototype being tested. All the difficulties users currently experience and could potentially experience were taken into account. Some of the questions considered were:

- What do users like/dislike about the product in general?

- What are their ideas/needs?

- How do users try to implement these ideas/needs?

- Does the user understand the provided solution?

Testing Techniques Applied

Get-it Technique

This technique is attributed to usability expert Steve Krug. In his book *Don't Make Me Think*, Krug introduces his method for discovering whether a site's goals and purpose are self-explanatory. The technique involves asking questions relevant to labeling, design/layout, content and navigation.

Key task Technique

This technique involves the creation of relevant tasks for the user to complete while using the software application's interface. The success or failure of the task depends upon whether the user locates the information he or she is seeking.

PMI Technique

This technique's acronym stands for "**P**lus" "**M**inus" "**I**nteresting" and categorizes the product's aspects as viewed by the user (see description in de Bono, 1994). This is a technique more commonly used in cognitive psychology as a technique to constructively focus user attention. Users were asked for their comments on the interface, which are then categorized under the appropriate aspect. This technique was applied near the middle of the usability testing session to help summarize the individual's thoughts and perspective before moving on to the grade book evaluation.

Usability Test Script Development

A usability test script was designed as a protocol to maintain a consistent questioning style with all participants in the study. The basic format of this script follows the style used by usability expert Steve Krug. The usability script was revised three times with input from users. The 3rd version was used for the tests (see Appendix A). There was one variable item being tested. Seven users were given a pre-populated interface with all tools presented, while 5 were given the opportunity to setup the course themselves.

Sample Group Selection Criteria

The only criteria used when selecting the sample group was that the user must have had some experience using the CMS Enterprise Edition to create and teach online classes.

Data Capture Equipment and Software

Each test was conducted using *TechSmith's Morae*, which is a specialized software used for capturing usability testing. *Morae Recorder* was used to capture the activities on the screen

with a combination of numerical data, user audio and video. During a test, additional researchers were able to observe the session in a separate room through *Morae Remote Viewer*. Following the testing phase, *Morae Manager* was used to analyze the quantitative and qualitative data collected.