

Project 1: Quiz Preparation in an Online Management System

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Background of our Project

- Evaluate the current Learning Management System of the University Extension's (UNEX) Distance Learning Center
- UNEX uses Moodle 1.97
- Upcoming update to Moodle 2.0

OUR TASK

- Focus on the currently implemented quiz creation system to work out any usability problems there may be and to analyze the future version.
- Make Recommendations for the future version.

Objectives

- Analyze the usability of the current quiz preparation system
- Find out how easy or difficult it is to get a well-designed quiz set up for a class
- Look into the quiz preparation process as users of the system in order to gauge the usability of the system
- Document what instructors did not like and like about 1.97 as a reference for changes in Moodle 2.0
- Explain and over view Moodle 2.0
- Compare "desired usability" and evaluate if proposed Moodle 2.0 would satisfy the desired usability.
- Make our final recommendations

What we discovered using V1.97 ourselves: Usability Problems

- The process of creating a quiz is not immediately intuitive; may require some form of training
- Must always enable editing through a tiny link.
- Please see the slide below



DLC ▶ 123 Test Course 2011

Turn editing on

123 Test Course 2011

People

Participants

Activities

Forums

Search Forums

Advanced search

Administration

Turn editing on

Settings

Grades

Groups

Backup

Restore

Import

[News forum](#)

April 1 - April 7

April 8 - April 14

April 15 - April 21

April 22 - April 28

April 29 - May 5

May 6 - May 12

May 13 - May 19

May 20 - May 26

May 27 - June 2

June 3 - June 9

Latest news

[Add a new topic...](#)
(No news has been posted yet)

Upcoming Events

There are no upcoming events

[Go to calendar...](#)
[New Event...](#)

Recent activity

Activity since Sunday, April 17, 2011,
01:22 AM

[Full report of recent activity...](#)

Nothing new since your last login

Usability Problems (continued ...)




- Form fills are not very transparent about what it is they are asking for
- Help feature for the form fills is too "heavy" and not context sensitive.
- Please see the slides below.



























Adding a new Quiz to week 3 ?

General

Name* You must supply a value here.

Introduction ?

Trebuchet 1 (8 pt) Lang **B** *I* U ~~S~~ x_2 x^2   

Path:

Timing

Open the quiz ? Disable

Close the quiz ? Disable

Time limit (minutes) ? Enable

Time delay between first and second attempt ?

Time delay between later attempts ?

Display

Heck Yea... YouTube ... YouTube ... YouTube ... Help

http://learn.uci.edu/cms/course/modedit.php?update=218 http://learn.uci.edu/cms/help.php?module=quiz&file=browsersecurity.html&forcelang=

Apple Yahoo! Gmail Facebook EEE YouTube

Attempts allowed ?
Each attempt builds on the last ?
Adaptive mode ?

Grades

Grading method ?
Apply penalties ?
Decimal digits in grades ?

Review options ?

Immediately after the attempt

Responses
 Answers
 Feedback
 General feedback
 Scores
 Overall feedback

Security

Browser security ?
Require password ?
Require network address ?

Common module settings

Browser security

This option offers various ways to try to restrict how students may try to 'cheat' while attempting a quiz. However, this is not a simple issue, and what in one situation is considered 'cheating' may, in another situation, just be effective use of information technology. (For example, the ability to quickly find answers using a search engine.)

Note also that this is not just a problem of technology with a technical solution. Cheating has been going on since long before computers, and while computers make certain actions, like copy and paste, easier, they also make it easier for teachers to detect cheating - for example using the quiz reports. The options provided here are not fool-proof, and while they do make some forms of cheating harder for students, they also make it more inconvenient for students to attempt the quizzes, and they are not fool-proof.

You should also consider other ways to make it harder for students to cheat at your quiz:

- You can use a large question bank, which the quiz picks a selection of questions randomly, so different students see different, but similar questions.
- You can use the shuffle answers option, so that the right answer to question 1 is not always option A.
- You can ask questions that required students to analyse the given information, rather than just recalling facts.

With the above warnings in mind, here is the description of the available options.

None

No impediments are put in the way of students attempting the quiz.

Full screen pop-up with some JavaScript security

Full screen pop-up with some JavaScript security

Unmask

* Show Advanced

Usability Problems (continued...)

- Creating questions for the quizzes needs to be more straightforward



123 Test Course 2011

Info Results Preview Edit

Quiz Questions Categories Import Export

Question bank

Category Default for 123 Test Cou

- Display questions from sub-Ca
- Also show old questions
- Show question text in the que

The default category for questi

Create new question

No questions have been added yet

- Choose...
- Calculated
- Description
- Essay
- Matching
- Embedded answers (Cloze)
- Multiple Choice
- Short Answer
- Numerical
- Random Short-Answer Matching
- True/False
- Choose...

Course 2011'.

Adding a Multiple Choice question ?

General

Category

Question name*

Question text ?

Trebuchet 1 (8 pt) Lang **B** *I* U ~~S~~ x_2 x^2

Path:

Format ? HTML format

Image to display No images have been uploaded to your course yet

Default question grade*

Penalty factor* ?

General feedback ?

Trebuchet 1 (8 pt) Lang **B** *I* U ~~S~~ x_2 x^2

Shuffle the choices?
 Number the choices? a., b., c., ...

Choice 1

Answer

Grade None

Feedback

Trebuchet 1 (8 pt) Lang B I U S x₂ x²
 [Rich text editor toolbar icons]

[Empty text input area for feedback]

Path:



Choice 2

Answer

Grade None

Feedback

Trebuchet 1 (8 pt) Lang B I U S x₂ x²
 [Rich text editor toolbar icons]

[Empty text input area for feedback]

123 Test Course 2011

Info Results Preview Edit

Quiz Questions Categories Import Export

Question bank

Category Default for Quiz 1 (1)

- Display questions from sub-categories too
- Also show old questions
- Show question text in the question list

The default category for questions shared in context 'Quiz 1'.

Create new question Choose...

Sort by type, name

ACTION	QUESTION NAME	TYPE
<input checked="" type="checkbox"/>	Question One	
test test		

Select all / Deselect all

With selected:

Delete Move to >> Default for Quiz 1 (1)

Usability Methods - Finding the Users

- Active users that have used the v1.97 system in the past six months.
 - aka, recently active Distance Learning Teachers/Professors
 - Provided to us by Dr. Jia Frydenberg
- Send e-mails to all the above active users informing them of our study and asking if they would like to participate in our study
- Our goal is to have at least 7 of the above participants in this study in order to attain a reliable hypotheses
- If feasible, do an online survey, wherein ALL teachers including those who have not been active users of v1.97 answer a few well thought out questions in a convenient online forum.

Usability Methods - Finding the Users

USERS continued...

- We anticipate to have subgroups of users based on what task they will have to perform
 - Mostly based on distance and availability
 - System Walkthrough vs. Questionnaires/Surveys
 - Some sets of users will have to compare the usage of 1.97 with that of 2.0 if we have permission to release it to them as Beta Testers of 2.0 (this might not be logistically or technically possible).
- Testing sessions with users lasting between 20-30 minutes

Usability Methods - Primary Method (First Phase)

- Primary method to gain insight into the usability of the current system is through a walkthrough of the quiz preparation system with the users
 - Unstructured interviews with 1 to 2 users
 - In-person/Skype's Screen Sharing Feature with 4-6 users
 - Think aloud procedure will be applied
 - Done on current Moodle version 1.97

Usability Methods - Primary Method (First Phase)

TASKS

- Walk us through the system into the quiz creation system
- Create a timed quiz that should be available for at least a week
- Quiz created should have at least 10 questions of different types
- Publish the quiz
- Possibly go back and make changes to certain questions
- Assess the ease of these tasks

Usability Methods - Primary Method (Second Phase)

- Research Team will look into Moodle 2.0 and report the differences between 1.97 and 2.0
- Call back test subjects for a different testing session wherein they perform similar tasks in 2.0 that they used in 1.97 (this might not be technically or logistically possible)
- If we succeed in the above, then a structured Interview on how the users compared changes in 2.0 to 1.97
- Re-evaluation of users on how they found the usability of the Moodle Learning Management System to be.

Usability Methods - Secondary Method

- Secondary method done with users that do not have availability or do not have any feasible means to meet up with the Research Team
- Users are given questionnaires/surveys including an online survey, that pertain to their experience using or not-using v1.97
- The questions will be formulated from previous interviews and walkthroughs

Usability Methods - Secondary Method

- Followed-up by an interview/second questionnaire
 - Done after the Research Team has reviewed user responses and Moodle 2.0
 - Users will be asked about Moodle 2.0 of any problems/improvements they noticed
 - End survey with open ended questions, to get better user feedback

Schedule

1. Weeks One and Two (03/30 - 04/09)

- Gather information about the study from client(all members)
- Formulate usability tests (Camille and Sanjay)
- Contact user base and ask about participation in study (Kristen and Sanjay)
- Explore the Moodle Learning Management System to try to get familiar with it (all members)

2. Weeks Three and Four (04-11/04/23)

- Send out emails to user base and await their replies (Camille and Sanjay)
- For those who replied, try to determine their availability and assign which methods will be assigned to them(Camille and Sanjay)
- Be more familiar with the Moodle Learning Management System(all members)

Schedule (Tentative)

1. Week Five (04/24 - 04/30)

- Meet up with users and run usability tests(all members)
- First Phase of the usability tests with the primary group of users(all members)
- Create relevant features "list" Moodle 2.0 that might address usability issues. (Kenny)

2. Week Six (05/01 - 05/07)

- Analyze data received from usability tests(Sanjay, Kenny)
- Proceed with second phase of testing(all members)

3. Week Seven (05/08 - 05/14)

- Analyze data received from usability tests(all members)
- Prototype ideas for redesign or improvements to system(all members)
- Re-evaluate system(all members).

Schedule (Tentative)

1. Week Eight (05/15 - 05/21)

- Call back a user set for suggestions and opinions on redesign
- Final Recommendations gathered

2. Weeks Nine and Ten (05/22 - 06/04)

- Refine collected data
- Produce Final Report

End

Questions?