

# Course Catalog Usability Test

Report date: November 15, 2010  
Test date: November 1-4, 2010  
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## Contents

Overview .....	2
Major Findings.....	2
Methodology .....	4
Usability Test Description.....	4
Participants.....	4
Usability Test Categories.....	5
Data Collection .....	5
Testing Environment .....	6
Findings.....	7
Common Observations .....	7
Severity Ratings .....	8
Feedback on Options on the Create or Copy a Course Page.....	8
Create and Copy Options on the Same Page .....	9
Browse by Discipline .....	10
Create/Copy Page Image .....	10
Missing Cover Art .....	11
Course Catalog in the Decision Process (Side-by-side) .....	12
General “Contents” Labels Are Fine .....	13
New Design Icon .....	13
Description Field.....	14
Require only Course Title .....	14
Prefer Electronic to Print .....	15
Prefer to Enter Course Immediately.....	15
McGraw-Hill Creation Evaluation .....	15
Student Instruction Handout .....	16
Card Sorting Results.....	18
Feature Requests .....	20
Extended Course End Dates .....	20
Add Release Date to Search Results .....	20
Appendix .....	21
Appendix A – Test Plan.....	21
Appendix B – Participant Waiver .....	21
Appendix C – Background Information Survey .....	21

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## Overview

The main objective of this study was designed to evaluate the current course creation processes within Pearson CourseCompass and McGraw-Hill Connect. Eight university instructors participated in remote, one-on-one usability sessions.

In general, their reaction to the Pearson process is positive. While no major usability issues were discovered, the instructors offered a number of suggestions on areas they liked, as well as, areas they thought could use some improvement. When compared to a McGraw-Hill's course creation process, the majority of instructors preferred the Pearson process overall for some of its efficiencies – as well as perhaps a little comfort from familiarity. The competitor's concept for an automatically created student handout was seen as very exciting, but lacking in substance. Discussions of how to marry the Pearson registration instructions with an online handout template was very intriguing to the instructors.

## Major Findings

- Instructors want to get in, get done, and move on. Design emphasis should be on “efficiency and speed” through minimal options.
- Participants were concerned about course creation delay. It could take several business days for the system to make newly created course available for use. What they really want is to work on the newly created course immediately. They were happy to see it has been taking less time than noted.
- All of the participants used the Search and Copy a Course features almost exclusively. A few used Browse at times. None of them had used Create Personal Edition or Upgrade options.
- None of them (0%) had previously given any consideration to the image on the left, or the text within. All eight (100%) had to be directed to it and prompted to click the radio buttons before they noticed the connection.
- Only one (1) participant used the catalog as part of their decision making process. Most stated that they knew what book they were using by the time they came to the setup.
- Cover art in the search results is essential.
- Three “New Design” icons were shown. The red starburst was noted as the most eye-catching. Of the dog-ear designs, they prefer the realistic looking image.
- The majority of the participants thought the wording “New Design” was too vague. They were unclear if this was referring to a new edition, new contents, or simply a new layout for the materials or online interface.
- No one uses the “Description” field: average rating of “likelihood to use” was very low (1.3 out of 7)
- Several requested the ability to extend the course end date out to at least 2 years

- There was very little interest in printing the screen, especially if an electronic copy is emailed to them.
- There was strong interest in a button to create a student handout if it is customizable to account for any unique information
- Overall, they still preferred the Pearson setup process over McGraw-Hill
- 100% of the participants prefer the Pearson design of showing books in a list over the horizontal ribbon used by M-H; they felt a list is easier and faster to navigate
- A majority were fine with the extra questions (enrollment dates, start/end dates, allow course copying, etc.) being during the setup as they thought they might forget if they waited.

See [Findings](#) for details and recommendations.

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# Methodology

## Usability Test Description

The usability test was facilitated by Stuart Ough and observed by Enlie Wang and Andy Trus.

The test plan (see [Appendix A, Test Plan](#)) was developed by Andy Trus, Enlie Wang, and Stuart Ough. The “New Design Icon” prototypes were built by the CCNG design team. All the sessions were conducted remotely and recorded using WebEx and Camtasia Studio 6.

Each testing session lasted approximately 65 minutes. Participants were asked to sign a waiver form (see [Appendix B, Usability Participants Waiver](#)) and complete a background information survey (see [Appendix C, Background Information Survey](#)) before the study.

## Participants

Eight (8) instructors from across the United States and two disciplines participated in this study. This table shows a profile summary:

<b>Age</b>	Average = 50.4 years Std Dev = 9.8 years
<b>Gender</b>	Female = 6 (75%) Male = 2 (25%)
<b>Hours on PC per day</b>	Average = 6.8 hours Std Dev = 2.4 hours
<b>Years using a PC</b>	Average = 21.9 years Std Dev = 7.5 years
<b>Departments</b>	Mathematics (7), Language (1)
<b>Technology Skill Self-rating (1–10)</b>	Average = 8.4 Standard Deviation = 0.5
<b>Use of a Pearson MyLab product</b>	Yes = 8 (100%)
<b>Involvement in course creation</b>	For self and other instructors = 5 (62.5%) Create only for myself = 4 (50%)

The full profile survey results can be found here:  
<http://appv3.sgizmo.com/reportsview/?key=22861-430874-f30509d047db702822c98d2a59676935>

Participants were recruited by Catherine Burdt (Sr. Product Manager, CourseCompass). Eight CourseCompass instructors (six UI Advisory Team members and two average CourseCompass instructors) signed up their testing sessions via the online self-registration tool (Genbook.com). The two average CourseCompass instructors received a \$50 honorarium (American Express gift cards) as a thank you for their time and input.

## Usability Test Categories

We looked at the following during the evaluation:

1. Which options the participants choose when begin building a class, and why.
2. What information is important on the search results page.
3. What information is used and is useful on the class details page.
4. What information is used and is useful on the confirmation page.
5. Comparison with competitor site.

Questions were asked at the appropriate moment according to the **Test Plan**.

## Data Collection

All sessions were audio and video recorded. WebEx and Camtasia Studio 6 were used to record screen activity and the users' audio and video during the evaluation.

The users' background information was collected before each evaluation through an online survey.

## Testing Environment

The remote participants' computing environment:

<b>URL of the tested website:</b>	<a href="http://portal.myperson.com">http://portal.myperson.com</a> Login: andytrus Password: password1
<b>Computer platform:</b>	PC or Mac
<b>Web browser:</b>	Participants used their own browsers
<b>Screen resolution:</b>	Participants used their own settings
<b>Remote testing software:</b>	WebEx
<b>Connection speed:</b>	High-speed required (actual speed unknown)

The facilitator's computing environment:

<b>Computer platform:</b>	Windows desktop PC
<b>Web browser:</b>	IE 8
<b>Screen resolution:</b>	1280x1024
<b>Operating system:</b>	Windows 7
<b>Remote testing software:</b>	WebEx + Camtasia Studio 6
<b>Connection speed:</b>	LAN

# Findings

## Common Observations

Tasks	Common Errors/Expectations
T1: Evaluate the course creation options (create or copy)	The majority were fine with Create and Copy being on the same page
	Search and Copy a Course were used almost exclusively
	None had given any consideration to the left side image with option description
T2: Browse Textbooks (Course materials)	Clear cover art is essential
	All stated they would know the book they are looking for by this point. Only one noted using the catalog as part of the decision process.
T3: Entering Course Information	No one uses the Description field
	Instructors use intricate, detail rich course titles for both the students' advantage as well as their own organizing over time
	Having a separate field for section or other class details was concerning to instructors – they want to know that the information entered will appear in both the students portal and their own for effective selecting
T4: Evaluate the Course Confirmation Page	Course ID is the most important item on the page
	Strong interest in a student handout if it the content is customizable
	They like the information box on the right. Several noted they are pleased that the build time has been shorter than noted (counted in minutes instead of hours)
T5: Evaluate the McGraw-Hill Course Creation Process	All of the participants thought the ribbon was a pretty effect, but would be very inefficient for actual use – especially with a long list of books
	Participants indicated they prefer the settings questions to be part of the process (as seen in Pearson method)

## Severity Ratings

Findings are rated on a three-point scale. Positive findings were not rated. Three severity levels are:

- **High** – These are the most severe issues that prevent users from completing a specific task or the test. These issues should receive the greatest attention.
- **Medium** – These issues make completing a task more difficult. If medium issues occur on frequently used elements of the application, they should be addressed as high severity issues.
- **Low** – These are the least offensive issues. Low severity issues relate to interface enhancements. Addressing these issues could make the application easier to use.
- **N/A** – These are not issues, but rather other observations or patterns that may help inform the team of the context and the user mindset.

Severity: Low

Severity: Medium

Severity: High

Severity: N/A

## Feedback on Options on the Create or Copy a Course Page

Severity: N/A

Each of the five (5) creation options was discussed with the participants. The following is a recap of their feedback.

### Search Course Materials

- This is the second most used option next to copy; for a given class it appears they only set up a completely new one every few years when they change books
- All participants noted using either author's last name, the book title, or some keyword from the title in the search; none claim to use the ISBN as they do not have it at the time of setup
- Multiple complaints were raised that the search results are often incorrect; this is similar to previous studies and appears to be due to an overly sensitive search matching logic. For example, instructors would try to enter an author last name plus book topic (e.g., Burnes Algebra) and the results would show



zero, but if only the last name was used all books by that author would appear.

#### Browse By Discipline

- This is the third most used option.
- Some felt the results are potentially too broad -- due to the vast number of books -- that it minimizes its effectiveness and use.
- They do not use the "Publisher" drop down and just leave it on "All Publishers". They (a) don't really care or assume it will be Pearson anyways, and (b) figure the results will be those books that are available regardless of publisher.
- The participants would be much better served by a second dropdown that offered sub-disciplines for more precise search results.

#### Create Personal Edition

- None of the participants admitted to using this option.
- Most participants were unsure what this option pertained to.

#### Upgrade to New Edition/Version

- None of the participants admitted to using this option.
- Users questioned whether this option creates an entirely new class set up, or if it simply amends their existing class. There was hesitation and fear that it would conflict with, or erase, their existing class.

#### Copy a Course

- This is the most common option used as they tend to use the same book multiple years.
- Only one (1) participant thought this should be on a separate page.

## Create and Copy Options on the Same Page

Severity: Low

The participants felt the first four options on the page were all related to "Creating" while the last one was the only options related to "Copying". Even so, 87.5% of the participants (7 out of 8) felt it was fine to have both the same page as they all led to the eventual building of a new course.

Several did mention the design could better visually denote which options are part of Create and which is part of Copy for faster scanning.

#### Recommendations:

- Incorporate graphic design elements to separate the "Create A Course" options from the "Copy A Course" options. This could include a label for each

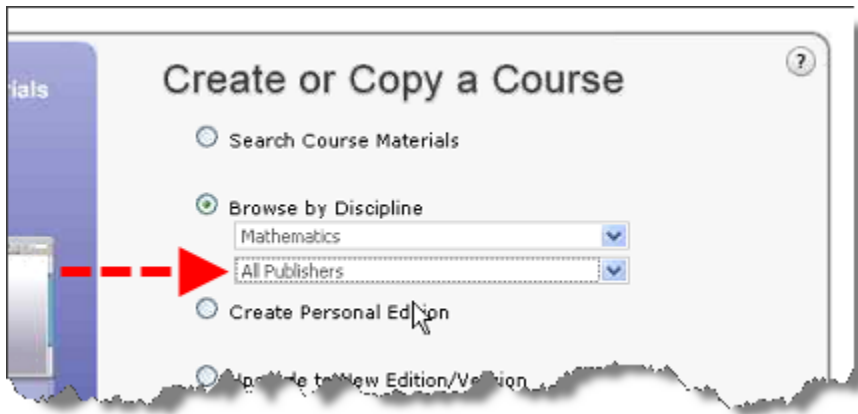
section, more white space between the two sections, or some form or grouping techniques.

- Review internal analytics to determine the number of “personal editions” or conduct an online survey of Instructors and Admins to determine how many have used the “Create Personal Edition”. If the number is sufficiently low, consider removing this option and placing it elsewhere (TBD).

## Browse by Discipline

Severity: **Low**

75% (6 of the 8) thought the publisher selection dropdown was unnecessary. They did not care who the publisher was since the results would only include those that are available to them. Instead, they would rather see a second dropdown that included sub-disciplines to help narrow the results.



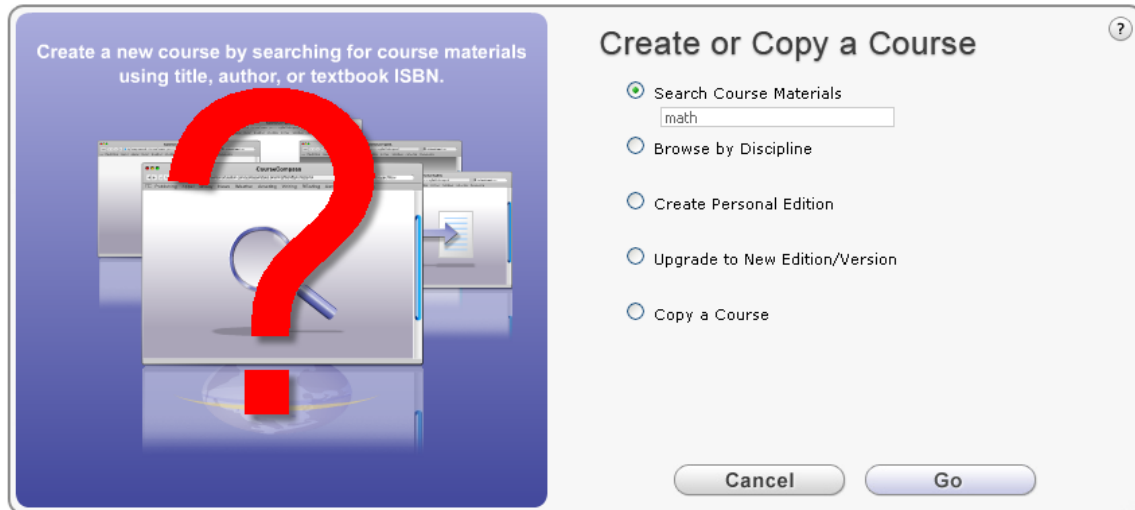
### Recommendations:

- Replace the “Publisher” dropdown with a dynamic field containing sub-categories of the discipline chosen in the first field. For example, if Mathematics is selected as the discipline, the second field may include options such as Beginning, Elementary, Secondary, College, Pre-Algebra, Algebra, etc. Options should be based on standardized data within disciplines.

## Create/Copy Page Image

Severity: **Low**

None of the instructors (0%) had previously given any consideration to the animated image on the left, or the text within. All eight (100%) had to be directed to it and prompted to click the radio buttons before they noticed the connection.



### Recommendations:

- Remove the image and use the space to assist with separating the Create and Copy paths.
- Add the description from each image to hover text or supporting copy after each option.

### Missing Cover Art

Severity: High

Some of the search results were missing cover art and showed either:

- A dollar sign
- A Pearson corporate logo
- A Pearson/Prentice Hall logo

This may seem trivial; however, ALL of the participants noted that the cover is one of the most important elements on the page for them. Clear cover art helps them quickly scan and confirm the correct book and edition. Without it, the user feels uncertain and anxious.

The three “non-cover” placeholder images noted above caused additional confusion. They did not know if it was an unprofessional oversight or if perhaps it was a custom published book. The participants did appreciate the “Pearson Custom Publishing” logo that appeared for one result as it clearly noted the nature of the book.

**Basic Math, Algebra, and Geometry with Applications 1/e**  
**Cleaves, Cheryl | Hobbs, Margie**  
 Textbook ISBN-10: 0131844415  
 Textbook ISBN-13: 9780131844414  
 Publisher: Prentice Hall  
 Contents: Tests Student Resources Multimedia

**Business Math 8/e**  
**Cleaves, Cheryl | Hobbs, Margie**  
 Textbook ISBN-10: 0131591215  
 Textbook ISBN-13: 9780131591219  
 Publisher: Prentice Hall  
 Contents: eBook Student Resources Multimedia  
 This course is part of the enhanced MyMathLab series from Prentice Hall.

**Business Math Brief Edition 8/e**  
**Cleaves, Cheryl | Hobbs, Margie**  
 Textbook ISBN-10: 0135150108  
 Textbook ISBN-13: 9780135150108  
 Publisher: Prentice Hall  
 Contents: eBook Student Resources Multimedia  
 This course is part of the enhanced MyMathLab series from Prentice Hall.

**Do I have to pay to see the book cover?**

**MyMathLab**  
 Series Includes MyStatLab

**Elementary Math Strategies**  
**Cathcart, George | Pothier, Yvonne M. | Vance, James H. | Bezuk, Nadine S.**  
 Textbook ISBN-10: 0201679546  
 Textbook ISBN-13: 9780201679542  
 Publisher: Pearson Education  
 Contents: Student Resources Multimedia

**Elementary Math Strategies**  
**Pearson Education**  
 Publisher: Prentice Hall  
 Contents: Student Resources Multimedia  
 The online Elementary Math Strategies course developed by Pearson Teacher Education and Development offers instructors a rich online course built around assignments and activities, classroom videos, and readings. Weekly assignments are focused on essential course concepts and provide well-structured and effective learning activities. Once students complete these assignments they are given opportunities to discuss and reflect upon what they have learned. Students are then led to meaningful, real-world activities that

**Are these custom publishing as well? Oversights? Errors?**

**Recommendations:**

- Ensure each entry has an accurate cover art image.
- Conform to a single, standard placeholder image for any missing files.

**Course Catalog in the Decision Process (Side-by-side)**

Severity: N/A

87.5% (7 out of 8) say they already know what book they're using by the time they came to the setup; as such, none of these seven expressed interest in a "side-by-side" comparison tool.

The one (1) participant who included the catalog in the process used the catalog to review the electronic materials of the few book finalists. This person would be interested in a data-rich matrix to compare details on topics and materials available.

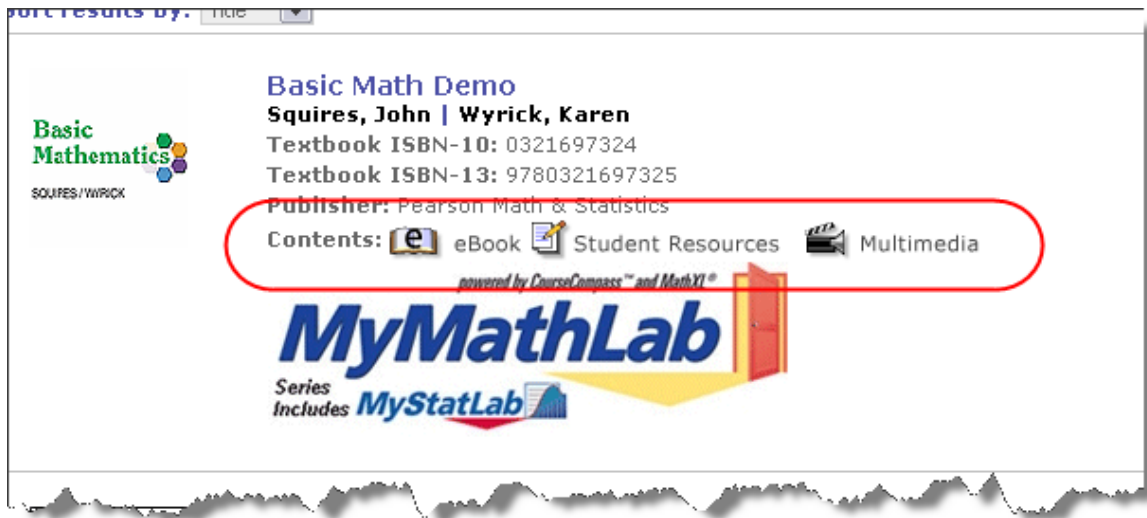
**Recommendations:**

- Producing a side-by-side comparison tool could be a lower priority.

## General “Contents” Labels Are Fine

Severity: Low

87.5% (7 out of 8) also thought the general reference to the type of materials included with the course (e.g., Student Resources, Multimedia, Tests, eBooks, etc.) was adequate. They did not think further detail about each content offering was necessary as they would have already looked into these details during the selection process or could create a course to learn more.



**Recommendations:**

- One participant was very adamant that “eBook” is an inaccurate label if the book is just a PDF. They expected a true eBook to be more flexible and interactive.

## New Design Icon

Severity: N/A

Three “New Design” icons were shown. The user preference in order was: (1) a red starburst on the right, (2) a dog-ear on the right, and (3) a red tab on the left. Of the dog-ear designs, they prefer the realistic looking image.

A couple participants thought that, regardless of the design, it would be more noticeable on the left; however due to proximity to cover art it could easily be misconstrued as change is to the printed book.

The majority of the participants also thought the wording “New Design” was too vague. They were unsure if this was referring to a new edition, new contents, or simply a new layout. They suggested using more precise terms like “New Content”, “New Tests”, “New Look”, “New Layout”, etc.



### Recommendations:

- The starburst appeared to catch the most attention and should be integrated into the final design.
- Placement somewhere in the center text area could be considered, including small starbursts next to text lines.

## Description Field

Severity: Low

No participants (0%) claim to use the Description field. Their reasoning was that either (a) descriptive info would be part of the title, or (b) since students would not see this information it is not worth their time.

- Average rating of the “likelihood to use” was very low: 1.3 (on scale of 1 to 7)

### Recommendations:

- Remove this field if its contents are not going to be part of the student view.
- If project management is reluctant to remove an existing field, conduct internal server analytics to determine the actual usage of this field. If actual usage is sufficiently low (below 10%), remove the field to reduce page clutter.

## Require only Course Title

Severity: Low

When asked, instructors indicated that only Course Title should be necessary. They thought the other fields were fine to have on the page, but could be completed later if they wanted. Most acknowledged they would fill them out now rather than later anyways, so as not to forget.

### Recommendations:

- Do not make the Enrollment Days or Course Start/End days required fields. Rather than required they might be part of a later validation before opening to students.

## Prefer Electronic to Print

Severity: N/A

There was very little to no interest in printing the screen, especially “if an electronic copy is emailed to me.” All said they used to print when they were first learning the system, but no longer print once they realized the same information would be available on the portal itself or arrive via an email. They would much rather receive the information in a confirmation email that they can store and print only if necessary.

Recommendations:

- Many colleges are working hard to “go green” and print less. If an automated email is not currently part of the process make it one.
- Keep the option to print; however, emphasize a confirmation email is being sent for their convenience and that print is also an option. For example, replace the current print line with, “**A confirmation email has been sent for your records. You may also [print this page.](#)**”

## Prefer to Enter Course Immediately

Severity: Low

Participants were concerned about course creation delay. They appreciated how the McGraw-Hill course appeared to be ready immediately. Instructors’ preference would be to enter the course right away, while the topic is fresh, to finish any setup. However, several noted appreciation for the sidebar which acknowledged the potential time delay and next steps. They were happy to report it has been taking less time than noted - often the class is ready within minutes, rather than hours or days.

Currently, the majority of instructors return to the myPearson page to do other work or confirm that the new class is at least listed (though inactive).

**Recommendations:**

- Continue system improvements to shorten the delay between creation and availability of the course.

## McGraw-Hill Creation Evaluation

Severity: N/A

Overall, while they feel the McGraw-Hill (M-H) version has some benefit and looks nice, they still preferred the Pearson method based on functionality. And while a potential bias could exist from familiarity with Pearson, enough rationale was given across participants as to downplay this factor.

- Several instructors commented that the M-H portal pages (home page and course listing page after logging in) were too long, had too much scrolling, and the design was too loud (distracting).

- 100% of the participants preferred the Pearson design of showing books in a list over the horizontal ribbon used by M-H. They felt a list was much easier to scroll and scan quickly, and that the ribbon would be slow and cumbersome to navigate, especially with a long list.



**Figure 1: Participants thought the ribbon would be far too slow.**

- A majority was intrigued by the M-H confirmation page/handout concept; however, they did not think it was detailed enough. See the following section on Student Instruction Handout for more information.
- A majority was fine with the extra questions (enrollment dates, start/end dates, allow course copying, etc.) being asked during the Pearson Enter Course Information step as they thought they might forget if they waited. This wasn't a case of feeling like these fields were unnecessary, but a rather a viewpoint that these are important, relevant fields that can be completed now or later.

### Recommendations:

- Adopt a hybrid approach taking the best elements from both design (i.e., use lists for search results, streamline the course information entry pages, send a confirmation email, add a detailed and customizable handout.)

## Student Instruction Handout

Severity: N/A

There was strong interest in a button to **create** a student handout, as shown in the McGraw-Hill sample. However, unlike the M-H sample which just contained a hyperlink, they wanted:

- The handout to include detailed, step-by-step instructions
- The ability to customize the information in the handout



- Control over how and when the student received it (varied from the system storing and emailing, to creating a PDF to download and distribute)

**Recommendations:**

- Design a handout template that includes step-by-step instructions
- Make the entire handout editable online or at least include a section for additional information.
- Store the handout online so that it can be accessed from anywhere at anytime
- Allow the instructor to print the handout or save the handout to their PC
- An advanced option could allow the instructor to send the handout to all students in the class roster with the click of a button.

# Card Sorting Results

Less is more for the Instructor's portal page. They prefer a minimal amount of information on the portal and more within each course. For example, they prefer Announcements to be shown within their relevant courses versus on the portal page.

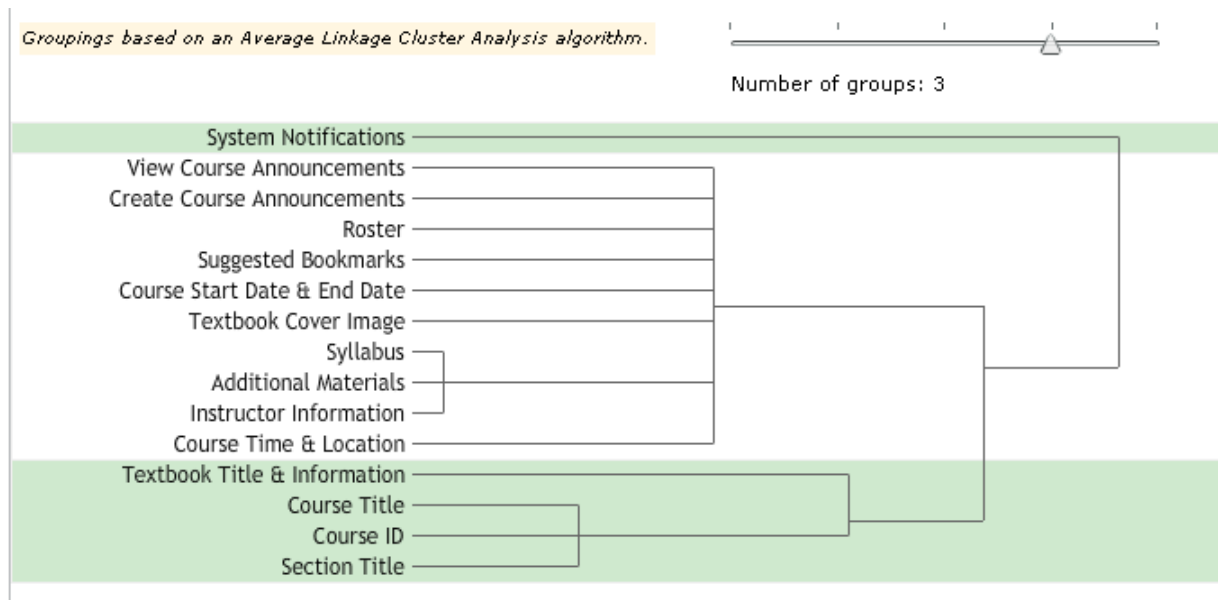
They also drew a bright distinction between what they want to see and what the students should see. Participants sorted them into 13 categories. See following chart.

*This table shows the % of times each item was placed in each group*

	Additional Course Info	Announcements	Course Info	Course Information	Current Title and Inform...	General Courses	Getting Started	Important To Instructors	Info for students/course	Instructor Features	Miscellaneous	Notifications	Roster	Section Information	Student Info	System Notification	System Notifications	Unused	Within Course	Would not name	
System Notifications		13	13					13													
View Course Announcements	13	38						13						13	13						13
Create Course Announcem...		25						13	13					13				25	13		
Roster			13					13	13				13					25	13		
Suggested Bookmarks	13							13					13					50	13		
Course Start Date & End D...	13				13		13											50	13		
Textbook Cover Image			13	13	13		13	13										25	13		
Syllabus	13	13						13						13	13			25	13		
Additional Materials	13	13			13			13						13				25	13		
Instructor Information	13	13			13	13		13						13				25			
Course Time & Location					25			13	13		13			13				25			
Textbook Title & Information		13		13	13	13		13	13									13			
Course Title				25	13	13		13	13					13							13
Course ID			13	25	13		13	13					13								13
Section Title				25	13		13	13					13					25			

However, there are only three major categories after cluster analysis:

- System Notifications
- Basic course information (title, ID, section, textbook) for course list
- Detailed course information for individual course page.



For more details on the card sorting process or to view other results you may visit here:

**URL:** <http://www.websort.net>

**Email address:** enliewang@hotmail.com

**Password:** testing123

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## Feature Requests

The following are new features either directly requested by the participants or observed as expectations by usability analysts.

### Extended Course End Dates

Several professors wished the course end date could be set out to 24 or 36 months. They would like the students to have access to their online materials to use as reference for a few years after they complete a course. Like a book that can be kept indefinitely on a shelf, they want people to feel they can access the online items at any time.

### Add Release Date to Search Results

Instructors indicated that the book release date would be useful to add to the results.

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# Appendix

## Appendix A - Test Plan

<https://docs.google.com/document/d/1WwY7c3cYmpU4RWj7Pc4MPiRjMQnnv546qld3fS2fYXQ/edit?hl=en&authkey=CMH3sJYC>

## Appendix B - Participant Waiver

Please read the following:

I have freely volunteered to participate in this product evaluation/usability study.

I have been informed in advance what my task(s) will be and what procedures will be followed.

I understand that the task(s) are designed to evaluate the ease of use of our product and are NOT designed to measure my performance.

I understand that the computer screen and phone conversation will be recorded during this session for further study if needed. Names will not be associated or reported with data or findings from this evaluation.

I permit Pearson to use my quotes and video segments from this usability evaluation in marketing materials.

I am aware that I have the right to withdraw consent and to discontinue participation at any time.

I will not disclose the testing content to others.

I have been given the opportunity to ask questions and have had my questions answered to my satisfaction.

My acceptance below may be taken as my affirmation of all the above statements; it was given prior to my participation in this study.

If you agree with all of the statements listed above, select the "Yes" radio button and go to next page.

Yes

No

## Appendix C - Background Information Survey

Survey questions and answers can be seen here:

<http://appv3.sgizmo.com/reportsview/?key=22861-430874-f30509d047db702822c98d2a59676935>