

## Student Perceptions Regarding the Effectiveness of the WyoCourses Orientations Course: A Pilot Study

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**Abstract:** *This study, conducted by graduate students, investigated student perceptions of an online course orientation: WyoCourses Orientation Course. This process began with a university-wide change to a new learning management system (LMS). We carried out focus groups with a small group of students about the tools they used, how they interacted with course content, if the new LMS impacted their learning, and how their community interaction improved. Then, we combined the focus group results, literature review findings, and consultations with experts to design an online survey as 458 students responded. The 28-item online survey measured student satisfaction on five subscales: navigation, content, understanding, satisfaction and communication effectiveness.*

**Key Words:** Learning Management Systems, Online Course Orientation, Student Perceptions

The purpose of this research was to ascertain student perceptions of their experience using WyoCourses Orientation Course. WyoCourses is the University branded learning management system (LMS) provided by Canvas by Instructure. Graduate students from three graduate departments, Adult Education, Literacy Education and Psychology, conducted a pilot study at the University of Wyoming during the summer of 2014 that sought to gather the effectiveness of an online orientation course using an online survey to collect and analyze data. We used constructs from Cho's (2012) developmental study in online learning and Webster, Trevino and Ryan's (1993) study of the "dimensionality and correlates of flow in human-computer interactions" (p. 411), in order to determine whether or not students were satisfied with the online orientation. A student, who looks at his or her computer with a playful eye (Webster et al., 1993) and learns to enjoy this interaction, will look forward to new, more intense computer contacts that improve self-confidence and independence. Currently, there is little published research on the value of using learning management tools to improve teaching and learning from the students' perspective (Miller, 1973) or to discover whether or not a student can learn to enjoy interacting with one another through using a computer.

The first step for the researchers was to review websites with orientations that were recommended by Canvas and others; the six reviewed sites were Wright Career College New Orientation, Howard Community College Canvas Training for Students, Bucks County Community College Canvas Basics for Students, Rider University Canvas Student Center, Edison

State College Student Orientation, and University of Central Florida, Center for Distributed Learning. By the time these reviews were complete, we had many good ideas about what type of content we wanted to display in order to encourage student responsiveness and help students navigate the basic content. Additionally, after a review of the literature and analysis of focus group interviews conducted during spring semester 2013, we wanted students to know where to go for additional information about how to increase their communication effectiveness. Finally, we attached an online survey, the pilot study, to the orientation course to determine student satisfaction and perceptions of the website. The results of this pilot study were presented at the Northern Rocky Mountain Education Research Conference in the fall of 2015 and supplementary charts and graphs are provided in this paper.

### LITERATURE REVIEW

The research team explored resources to construct the orientation course, searching through the current literature on distance learning in order to discover what factors contribute to student success. What Hardy and Boaz (1997) found in their survey of 200 distance learners was that the students felt the need to outperform the average college student by demonstrating certain exemplary skills – assertiveness, self-discipline, and independence. According to Hardy and Boaz, an instructor questionnaire revealed that students were caught off guard once they learned the amount of time and level of interaction required. In a previous study, students started to believe that it was only necessary to “log in once a week to get an assignment or provide a posting” (Bozarth, Chapman & LaMonica, 2004, p. 87). Contrary to popular belief that online coursework is easier, taking the time to review readings, answer discussion questions and prepare papers, online learning usually takes between 18-20 hours per week (Pallof & Pratt, 2007) per course. Therefore, we assume that while these work assignments are completed asynchronously, the weekly work load for online should be greater than attending a weekly on-campus class.

This online orientation study is modeled after Cho’s (2012) online student orientation (OSO) plan, which is self-paced -- allowing for a student to access at any time and choosing the module in which they would like to learn. Cho conducted an analysis answering three questions: What is the nature of online learning? How do students learn in Blackboard? What kind of technology is needed to take an online course? Additionally, Cho attempted to learn about his university's online contexts that included what type of courses are offered with an analysis of online tasks and resources needed, student support services, and the important online course interfaces desired to provide understanding of compatible courses. Cho suggested supplementing with qualitative data, such as interviews and focus groups, in order to enhance data analysis.

A study by Yang, Tsai, Kim, Cho and Laffey (2006) showed that two new factors within the online learning environment -- comfort with written communication skills and sharing personal information – elucidated more about their social learning experience than did social navigation. Items included in social navigation were judgments based on whether or not participants were being influenced by the actions of other students in their course (Yang et al., 2006). Dourish (1999) maintains that students’ decisions about social navigation are determined by what other students are doing in the space rather than by personal interactions between students.

Fuller (2014) writes that a first-year orientation course is necessary because students are “weak in basic skills and cultural knowledge” (p. 24); adding that through many years of teaching, he finds new students to be very pragmatic and hardworking, with a drive to produce greater quantities of work, sometimes ignoring quality (Fuller, 2014; Levine & Dean, 2012). Another

orientation course, designed by Brewer and Yucedag-Ozcan (2012-2013), focused on building leadership characteristics that improved post-self-efficacy scores and student determination in distance education.

McInnerney and Roberts (2004) tell us that social interaction between students and instructors in an online environment has challenges, and since the human desire for social contact, if left unfulfilled, will create dissatisfaction in distance education and, perhaps, cause students to drop out suddenly. McInnerney and Roberts (2004) tell us that the “lapsed time that can occur between question and answer may not assuage the tyrannies of distance, time zones, and isolation from which learners may suffer” (p. 73). An online orientation increases the student’s confidence that they can effectively communicate with their instructor and classmates, plus develop the pre-requisite skills needed for successful completion of coursework without the additional stress of earning a grade (Carruth, Broussard, Waldmeier, Gauthier & Mixon, 2010). Kuo, Walker, Belland, and Schroder (2013) found that the learner-content boundary was the soundest forecaster of student satisfaction; to increase learning an instructor should include asynchronous tasks, such as collaborations, searching online resources, and working on achieving problem based results.

Webster et al. (1993) studied human responsiveness in computer interactions and discovered that, theoretically, flow theory (Csikszentmihalyi, 1975) could be used to measure and study human interest when engaged with computers. Flow is a temporary subjective experience labeled as cognitive enjoyment that is characterized as curiosity in student work and is best measured immediately during or after the interaction (Webster et al., 1993). The results demonstrate that computer systems designed to “provide more user control, focus the user’s attention, and incite their cognitive enjoyment” (p. 420) deliver more positive work outcomes -- better computer use, and better communication effectiveness (Webster et al., 1993). Nonetheless, flow, coupled with intrinsic interest, is what stimulates the imagination in students (Csikszentmihalyi, 1975) and leads them to establish a distinctive kind of human relationship that eventually, with time, morphs into a commonwealth of individuals acting to preserve similar interests.

## **METHODOLOGY**

The change to a new LMS can be a difficult and traumatic process. This process can be handled in a wide variety of ways. At the University of Wyoming, we chose to introduce the new LMS to 900 students enrolled in pilot courses during fall 2013. Then the following semester, we solicited participants for focus groups with the purpose of discussing their experiences using the new LMS. Initially, 40 students responded, and we narrowed this group down to 15 students divided into 3 focus groups who answered 5 semi-structured interview questions; for instance, what tools did they use, what course content they engaged in, how they were interacting with the course content, how using the LMS impacted their learning, and did their community connection improve. The results of this focus group data expressed a strong desire for building community and, then, were combined with the literature review search and the reflections of instructional design professionals within the University of Wyoming community.

Next, the research team, informed by this three-step process, designed an online student orientation (OSO) instrument that included 28 items to deliver a university-wide student survey. The survey included five subscales (20 total items) derived from the literature: navigation, content, understanding, satisfaction (Cho, 2012) and communication effectiveness (Webster et al., 1993). Permission was granted from both Cho (2012) and Webster et al. (1993) to use and modify their

subscales. A 5 point Likert scale was used on all scale and subscale items, ranging from 1 - *Strongly disagree* to 5 - *Strongly agree*. Eight demographic items were also included on the instrument. Our original idea for the demographic items was to gather as much information as possible, so we added an additional category (e.g., other) to four of the demographic items – gender, education status, student classification, and race. Reasonably quickly, we realized our mistake, as we were getting some unusual answers (e.g., nonbinary: agender woman; genderfluid-ish; continuing ed: non-degree seeking; human race). Rather than attempt to categorize these responses, we decided to eliminate the “other” category in the demographics and focus our analysis on the descriptive explanations described in the Likert scale items. We attempted to answer questions about flow by adding the communication effectiveness section at the end of the survey.

### DATA COLLECTION AND ANALYSIS

In the summer 2014 we emailed the OSO instrument to students who explored the WyoCourses Orientation Course, in order to gain their perceptions regarding navigation, content, understanding, satisfaction and communication effectiveness in the orientation course. Two Samsung Galaxy Tablets were raffled as an incentive to complete the survey. The OSO instrument generated 458 cases ( $N = 458$ ). Prior to analysis, we eliminated seven cases where more than half the data was missing. Frequencies were calculated on all response items in SPSS to determine missing values. Next, we filled in missing values with the code 99 (Field, 2014, p. 108), meaning that the participant forgot to respond or failed to answer for some unknown reason.

These results were analyzed using SPSS which included: reliability and descriptive statistics, such as means, standard deviations, and frequencies of scale items. Since each subscale exhibited a different set of items, we decided to check internal validity to see if we found a relationship between the subscale items. Even with reverse coding 2 questions (Item 12 and Item 28), we maintained strong alpha coefficients of reliability, giving us confidence in the internal consistency between the question items. As reliability indicates a certain amount of freedom from random error, achieving repeatable results in another sample is crucial to our general assessment that students are satisfied with the OSO. Table 1 provides the reliability results using Cronbach's alpha on all subscales.

*Table 1. Reliability Results using Chronbach's Alpha from the OSO Subscales and Communication Effectiveness subscale (N = 458)*

Subscales	# of Items	$\alpha$
Navigation (OSO)	5	.82
Content (OSO)	4	.80
Understanding (OSO)	6	.94
Satisfaction (OSO)	5	.76
Communication Effectiveness	8	.93

*Note.* Chronbach's alpha on the total SOS (20 items) was calculated at  $\alpha = .92$

### DEMOGRAPHICS

A wide and diverse group of college students (458) responded to the survey, and the demographics, broken down by age, gender, race, student classification, employment status, and education status are represented in Table 2. Looking at the demographics, as we represent the entire state of Wyoming through the Outreach School, it was important to gain as many responses from distance students and on-campus students, which was achieved. Freshman and juniors made up the largest voting demographic (39.6%), followed by graduate students (19.5%). Nearly half the population was between the ages of 18-24 (49.5%), and, looking at the graduate student population, above the age of 35, equaled about 25.8% of the population. The most surprising responses were the low number of sophomores (10.8%) and a high number of female respondents (63.8%), even though Outreach courses are designed for upper division students. Our desire is to see more males and more sophomores in the final survey. Twenty-seven international countries were represented in the respondents. We were pleased with the diversity in the population as 24% of the respondents were non-white.

*Table 2. Demographic Characteristics: Gender, Age, Education & Employment Status, Student Classification, and Race (N = 458)*

Characteristic	n	Total Percentage
<b>Gender</b>		
Female	292	63.8
Male	162	35.4
Prefer not to answer	3	0.7
Missing	1	0.2
<b>Age</b>		
Under 18	4	0.9
Between 18-24	227	49.6
Between 25-34	107	23.4
Between 35-44	72	15.7
Between 45-54	33	7.2
Between 55-64	12	2.6
65 and older	1	0.2
Missing	2	0.4
<b>Education Status</b>		
Freshman	63	13.8
Sophomore	50	10.9
Juniors	118	25.8
Seniors	84	18.2
Post Baccalaureate	27	5.9
Graduate	89	19.4
Non-degree seeking	10	2.2
Missing	17	3.7

Employment Status*		
Part-time	129	28.2
Full-time	200	43.7
Retired	3	0.7
Unemployed	137	29.9
Student Classification		
Undergraduate; On-campus	191	41.7
Undergraduate; Off-campus	150	33.0
Graduate; On-campus	51	11.1
Graduate; Off-campus	51	11.1
Missing	14	3.1
Race*		
Caucasian/White	370	80.8
African American	13	2.8
Latino	38	8.3
Asian/Pacific Islander	30	6.6
American Indian/Alaskan Native	10	2.2
Prefer not to answer	18	3.9

Note. \*Participants could "check all that apply" in response to these items.

Table 3 provides frequencies regarding successful completion of classes and weekly hours spent using WyoCourses.

Table 3. Frequencies on items regarding completion of classes and weekly hours spent using Courses (N = 458)

Items	n	Total Percentage
Course Completion		
None	295	64.4
1 to 3 courses	106	23.1
3 to 5 courses	34	7.4
5 to 10 courses	21	4.6
Missing	2	0.4
Weekly Hours Spent		
None	43	9.4
1 to 3 hours	169	36.9
3 to 5 hours	134	29.3
5 to 10 hours	78	17.0
More than 10 hours	33	7.2
Missing	1	0.2

Descriptive results for the reversed questions, Item 12 ( $M = 3.68$ ,  $SD 1.02$ ) and item 28 ( $M = 3.44$ ,  $SD 1.14$ ), were surprising, as students seemed unsure of how to answer. Both questions offered neutral answers. The survey results in navigation were overall positive, indicating some mild agreement with being easy to understand and figuring out how to navigate. Students tended to like the overview and layout of the home page. The same responses were given for content; agreeing that content was important to learn and that it was presented appropriately. Understanding is where students are asked to comment on particular facets of WyoCourses; e.g., submitting assignments, participating in a discussion thread, checking on grades, and understanding how to take quizzes. The results of this section indicate a growing sense of ambivalence – uncertainly about how they are interpreting these questions. All questions received a high 3 response level, almost in agreement. The results are indicated in Table 4, below.

There is fluctuation in the satisfaction category. Again, answering in the mid-high 3's leads us to believe there is uncertainty in answering questions about satisfaction, the amount of time spent, and whether or not taking WyoCourses was worth their time. Finally, communication effectiveness (Webster et al. 1993) responses were also in the mid-high 3's; students saw the speed of information sharing, the ability to keep others up-to-date, and the ability to reach people positively, but held back on the quantity and quality of work and the speed and size of the decision-making process.

*Table 4. Means and Standard Deviations from Items on the OSO (1-20) and on the Communication Effectiveness subscale (21-28)*

Items	<i>M</i>	<i>SD</i>
<b>Navigation (OSO)</b>		
1. Easy to understand. ( $N = 458$ )	4.02	0.81
2. Did not take long to figure out. ( $N = 457$ )	4.09	0.84
3. Difficult to locate information easily [R]. ( $N = 455$ )	3.68	1.03
4. Layout made it easy to navigate. ( $N = 455$ )	3.90	0.88
5. Overview helped me to understand the OSO. ( $N = 458$ )	3.91	0.83
<b>Content (OSO)</b>		
6. Content is important to learn. ( $N = 457$ )	4.02	0.91
7. Content is informative. ( $N = 458$ )	4.01	0.81
8. Content is presented in an appropriate way. ( $N = 457$ )	4.05	0.80
9. Content covered almost all possible scenarios. ( $N = 458$ )	3.89	0.80



Understanding (OSO)		
<i>After the orientation,</i>		
10. I can perform better in my online course. ( <i>N</i> = 456)	3.76	0.86
11. I better understand how to set up my notification settings. ( <i>N</i> = 453)	3.91	0.82
12. I better understand how to submit an assignment. ( <i>N</i> = 456)	3.93	0.82
13. I better understand how to participate in a discussion thread. ( <i>N</i> = 450)	3.94	0.81
14. I better understand how to take quizzes. ( <i>N</i> = 453)	3.97	0.80
15. I better understand how to check my grades. ( <i>N</i> = 457)	3.96	0.84
Satisfaction (OSO)		
16. The content of this orientation is what I expected. ( <i>N</i> = 457)	3.89	0.73
17. The amount of time I spent was appropriate. ( <i>N</i> = 454)	3.65	0.89
18. It was worth my time to take the student orientation. ( <i>N</i> = 456)	3.57	1.03
19. I would not recommend that other students take this [R]. ( <i>N</i> = 456)	3.44	1.15
20. Overall, I am satisfied with the orientation. ( <i>N</i> = 454)	3.86	0.85
Communication Effectiveness		
21. I can better keep others up-to-date using Courses. ( <i>N</i> = 456)	3.73	0.81
22. The size of my communication network will grow. ( <i>N</i> = 455)	3.48	0.90
23. The speed of my information sharing will improve. ( <i>N</i> = 455)	3.72	0.79
24. The quantity of my work output will improve. ( <i>N</i> = 449)	3.49	0.89
25. The quality of my work output will improve. ( <i>N</i> = 448)	3.44	0.89
26. The speed of my decision-making will improve. ( <i>N</i> = 450)	3.37	0.92
27. My control over communications will improve. ( <i>N</i> = 448)	3.58	0.87
28. My ability to reach people will improve. ( <i>N</i> = 454)	3.71	0.86

*Note.* [R] = Item was reverse coded. OSO scale items and Communication Effectiveness items measured on a 5 point Likert scale ranging from 1-*Strongly disagree*, 2-*Disagree*, 3-*Neutral*, 4-*Agree*, 5-*Strongly agree*

## DISCUSSION

The primary purpose of this study was to assess the need for an OSO and discover ways to get students interested in participating. An online orientation course was designed and an online survey was sent out with 28 scale items asking for feedback in navigation, content, understanding, satisfaction, and communication effectiveness. A graduate student team, who were given reasonable latitude by their supervisor, designed and implemented the study. A review committee recommended that we reverse two of the questions to make sure that our participants were paying attention to the item responses. In order to solve this problem, we reversed Item 12 under



navigation (“It was difficult to located needed information easily.”) and Item 28 under satisfaction (“I would not recommend that other students take this WyoCourses student orientation.”). The results for Item 12 and Item 28, left us with a sense that our students were unsure of how to answer as the first response leans toward disagreement and the second strongly leans toward neutrality. We were left to ask ourselves whether the students were expressing ambivalence, disagreement with these statements or were they thrown off by the reversal of the questions.

While this pilot study was completed in the second year of the transfer from Canvas into WyoCourses, the number of classes completed and the weekly hours spent on WyoCourses are out of sync with one another. Students should be spending 19 hours per course (Palloff & Pratt, 2007) working in the LMS, according to distance education statistics, and only 7.2% of our students are even coming close to this standard. This is another area of concern and future focus for our instructional designers.

Overall, students tended to like the overview and layout of the home page. The same responses were given for content; agreeing that content was important to learn and that it was presented appropriately. Understanding is where students are asked to comment on particular facets of WyoCourses; e.g., submitting assignments, participating in a discussion thread, checking on grades, and understanding how to take quizzes. The results of this section indicate a growing sense of ambivalence – uncertainly about how they are interpreting these questions. All questions received a high 3 response level, almost in agreement, but not quite there. The results are indicated in Table 2, above.

## CONCLUSION

The WyoCourses survey results has reinforced the need for a student online orientation, as well as teaching the graduate student team lessons about the value in listening to stakeholder voices. We will redesign the orientation course with more emphasis on the widely used aspects of the learning management system; e.g., quiz taking, discussion boards, submitting assignments, and checking on grades. Prior to sending the orientation out in the final format, we will streamline the demographics in order to reduce confusion. It is our desire for this measurement to act as a self-assessment tool, eventually placing questions directly following the online instruction questions, in order for any instructor to use the online survey as a diagnostic tool. What is most important is adding a level of confidence to the online instructor’s toolkit that their students are ready to work, as well as, looking forward to working online.

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