Online Learning @ Severn Test

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Introduction

Severn School is a preK-12 private, independent school with a primary focus of preparing students for post-secondary study. According to a Rand Survey, online or e-learning in post-secondary schools is currently being used by 1 in 3 college students. Severn School is seeking to develop and promote online learning in our school in response to this trend.

An online course, *Online Learning @ Severn*, was created to introduce students to online learning with a three-module course. The three modules consist of:

- Introduction to Online Learning
- Introduction to Coding
- Introduction to Spreadsheets

This usability report will provide the results of a test conducted via the Morea usability testing system to capture participants' interactions and ratings of the class. Users were asked to complete a series of routine tasks. Sessions were recorded and analyzed to identify potential areas for improvement to the course site. The session captured each participant's navigational choices, task completion rates, comments, overall satisfaction ratings, questions and feedback.

Executive Summary

Kelly Wilson conducted the online usability test of the Online Learning @ Severn course on December 13, 2018 at Severn School. The test was conducted to determine the ease of use of the platform and areas of potential improvement. The two test subjects were high school students who volunteered to be participants. The tests were monitored by using the Morae system by TechSmith. The tests had five primary tasks and took approximately 15 minutes to complete.

In general, both participants found the *Online Learning @ Severn* course site to be clear, straightforward, and 100% thought the site was easy to use.

The test identified only a few minor problems including:

- Ensure all members of the community are included in class setup
- Provide introductory video before community members enter class

This document contains the methodology of the study, participant feedback, satisfactions ratings, task completion rates, ease or difficulty of completion ratings, time on task, errors, and recommendations for improvements.

Methodology

Sessions

The participants were recruited from the school population on a voluntary basis. Each session was 15-20 minutes in length. Student participants were sent an email with basic instructions and a link to the testing site. Once in the site, their keystrokes and screens were recorded, along with an auditory recording of the session. The participants were asked to complete six tasks, including such activities as watching videos and answering questions internally and externally to the video, navigating screens, answering discussion prompts and updating a Google document. After the last task was completed, the test administrator asked the participant to rate the overall experience by using a 5-point Likert scale (Strongly Disagree to Strongly Agree) for ten subjective measures including:

- Desire to use system
- Complexity of system
- Ease of use
- Need for technical support person
- Integration of functions
- Consistency of system
- Ease of learning to use system
- Cumbersomeness of system
- Confidence in using system
- Need for prior knowledge to use system

Participants

The participants were a freshman (age 14) and a senior (age 18). Both participants have a working knowledge of computer systems though neither had previously taken a formal online course.

Evaluation Tasks/Scenarios

Test participants attempted completion of the following tasks:

- Find the *Google Classroom* app and sign in to *the Online Learning @ Severn* class.
- Find the *Classwork* tab, watch the *Introduction to Online Learning* video and answered the embedded questions.
- Find the *Stream* tab and enter a comment on the *Nov 23rd* discussion prompt.
- Find the *Classwork* tab and complete the *Signup for Scratch* assignment under the *Introduction to Coding* unit.
- Find the *Enter your Username* assignment under *Introduction to Coding* unit and complete the assignment of updating the Google document.

Results

Task Completion Success Rate

All participants successfully completed all tasks required in this testing scenario. However, it should be noted that the first participant required three, separate attempts before a complete run in their third run. The errors that occurred were as follows:

- Student had not been added to the Google Classroom site.
- Student had not been added to EdPuzzle account.

Once those tasks were completed the first, and subsequent second participant, were able to navigate and complete all the required tasks.

Task Completion Rates

Participant	Task 1	Task 2	Task 3	Task 4	Task 5
1	√	√	√	√	√
2	√	√	√	√	√
Success	2	2	2	2	2
Completion Rates	100%	100%	100%	100%	100%

Time on Task

The testing software recorded the time on task for each participant. Some tasks were inherently more time consuming to complete than others due to content requirements, but the keystrokes or time to find tasks was similar across participants.

Errors

Only non-critical errors were recorded. A non-critical error is one that does not prevent successful completion of the scenario. An example of an observed error was answering the quiz questions incorrectly.

Overall Metrics

Overall Ratings

After task session completion, participants rated the site for ten overall measures (See Attachment A). These measures include:

- Desire to use system
- Complexity of system
- Ease of use
- Need for technical support person
- Integration of functions
- Consistency of system
- Ease of learning to use system
- Cumbersomeness of system
- Confidence in using system
- Need for prior knowledge to use system

Participants

All participants (100%) agreed (i.e., agree or strongly agree) that the platform was easy to use and felt confident in using it. The overall ratings for most measures were positive. The only notable exception was regarding the need of a technical support person where one participant rated a high need to support this system. Upon interviewing the subject posttest, it was due to the initial errors in not adding the student to the classroom site.

Recommendations

Participants recommended that the introductory video be included in the email inviting students to be in the class. They felt it was "redundant" once they were already inside the classroom site.

In addition, it was noted that adding participants to all class activities/sites needs to be thoroughly vetted before class invitations are distributed.

Conclusion

Implementing the recommendations and continuing to work with users (i.e., real students) will ensure a continued user-centered course. Additional work will need to be done to include more relevant and meaningful coursework.

ATTACHMENT A

Post Session Survey Questions

Based on your overall experience with the tasks, please answer the following questions. (The scale used a 5-point Likert from Strongly Disagree to Strongly Agree.)

1. *I think I would like to use this system frequently*
2. *I found the system unnecessarily complex*
3. *I thought the system was easy to use*
4. *I think I would need the support of a technical system to be able to use this system*
5. *I found the various functions in this system were well integrated*
6. *I thought there was too much inconsistency in this system*
7. *I would imagine that most people would learn to use this system very quickly*
8. *I found the system very cumbersome to use*
9. *I felt very confident using the system*
10. *I needed to learn a lot of things before I could get going with this system*