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Design Document: Usability Testing Report

Report outline (copy this and use it as your working template)

1. Title page

- o YouLearn Website Learning Management System version 1.3,

- o Report author: Jacob Ferguson,

- o Dec 2025

2. Executive summary

3. The learning management system was usable to demonstrate sample work flows to be supported in the future as courses are adopted and translated into website support.

- o High level findings include general website flow, verified fully routable path to all webpages interlinked to one another throughout the site; usability score 100/100, quiz path to determine outcomes of learning style; usability score 80/100, desire for more simplistic design and scope creep with goal to add too many features to prototype, usability score 70/100.

- o Immediate Recommendations: Remove general selection squares and replace them with buttons for the navigation bar and navigation between web pages. Create tests to identify student learning style. Current iteration is less intuitive than desired test but serves its function for working prototypes.

3. Goals & Scope

o Research questions, success criteria, topics not covered

o Research questions included how students learn, how to test students for learning style then grading students based on comprehension for offered subjects through learning management system website.

o Success criteria included customer retention metrics: #logins/day, #new accounts/day, #logins/month and #new accounts/month, learning effectiveness metrics: % courses completed is >70% and an increase of test scores >15%, usability of site with metric that system usability scores 80% or higher and task success rate is >90%, site accessibility metric: accessibility tested with screen reader compatibility supported, site performance and stability with metric that the page loads in <2.5 seconds and has 99% uptime year round, instructor satisfaction with metrics showing instructor satisfaction of 8/10 or higher, support efficacy with metrics of average help ticket requests completed in <24 hours, conversion and retention metrics that registration increases by 10%/month or more and website retains 70% of users after 3 months with checks every 3 months and business and return on investment with metrics that meet or exceed investors return on investment.

o Identified 4 different methods for student learning. Methods included visual, auditory, kinesthetic and reading/writing styles. Observed some overlap between student learning styles and a combination of the 4 available styles with some students using a hybrid learning style combining methods listed above.

o Topics not covered: Additional learning modules, these will be added in future

support beyond prototype stage once development has been completed in

alignment with learning institution partnerships.

4. Methodology

o Test types include moderated and unmoderated. Primary learning methods include

remote with the ability to support live hybrid environments to support real time

learning with student and instructor interaction.

o Number of participants: 30

o Session length: 1 hour

o Tools: Recording tools, website analytics and screen capture tools.

o Notes on facilitator script and pilot included having the students self-enroll in the

website and perform their first lesson.

5. Participants

o Recruiting criteria for students includes the student bodies of accredited

elementary schools, middle schools, high schools and college students. The key

benefit of the website is facilitating education beyond geological boundaries

allowing for adoption across the United States with plans to support other

countries once language support is improved. , Target demographics are all

students within the education system regardless of race, gender, identity, religion,

or other protected classes. The only criterion for demographics is that students be

enrolled in an accredited elementary, middle, school, high school or college. Beginning sample sizes will include starting with a sample elementary school, middle school, high school and college accepting volunteers. Current scalability will begin with elementary school then progress through each education level to create support framework which will then allow for scaling beyond cities to widespread adoption. Students self-reported their level of learning with learning management systems and were asked for feedback on how this website performed compared to those other learning management websites.

6. Tasks & scenarios

Write tasks as realistic scenarios and include exact success criteria.

Example tasks for an LMS:

- Task 1 — "Create new account and enroll in the English 101 course."

- Success = student created account, enrolled in English 101 and saw the English 101 course from the course dashboard

- Partial success= Student created account but could not enroll in the English 101 course or did not see the enrolled course on the course dashboard

- Task 2 — "Perform first English 101 module."
  Success = module and submodules for English 101 were completed successfully.

- Task 3 — "Participate in a community forum by creating a post and replying to a classmate's post."

Success = Student creates their own post; it is displayed in the forum, and they reply to a classmate's post and see their response in the forum as well.

7. Metrics collected

o   Quantitative measurements

o   Completion rate

o   Time spent

o   Failure rate

o   Usability test result

o   User satisfaction test

8. Results — Quantitative/Qualitative / findings

o   Completion rate - % of students who were able to perform the requested task

o   Last test results demonstrated 100% of students were able to create an account

o   Time spent – the time spent (in minutes) per beginning the task and completing it or stopping the attempt to complete the task.

o   Time spent averaged 2 minutes to create an account without extraneous variables

o   Failure rate – Number of errors generated when attempting to complete a task

o   Usability test result – 1-5 scale (5 being best) for ease of use for website with 10 questions. Total score is out of 50.

o   Current results showed an average score of 40/50. Students noted that pages such

as the enrolled courses page did not display properly when showing enrolled

courses. Received reports that the account creation page was confusing and did

not have the ability to reset password or update account details.

o   User satisfaction test – Net promoter score out of 5 (5 being best) for user

satisfaction with the site performance.

o   Current results showed 4/5 the website still needs improvement to meet the

student's expectations for what the site should look like and how it should

perform.

o   Demonstration of results using tables/charts. These can include a bar chart or pie

graph comparing students across quantitative measurements. Such as success rate

demonstrated with a bar chart where task is the x axis and success rate is % on the

y axis.

Produce tables or visual data representations to demonstrate results clearly and

effectively. The goal being to demonstrate the severity of the issue, frequency of

occurrence, the priority relative to other tasks, whether the fix is quick and how

long efforts are estimated to fix the problem.

o   Severity scale (1-10) 10 is most urgent

o   Frequency is the likelihood that the issue occurs with a % out of 100 per attempt

o   Priority (1-3) 3 is most urgent

- ○ Current issues were priority level 2 because these prevented or caused confusion when users were performing the user task list as demonstrated in the design documents.

- ○ Quick fix means that the problem can be solved in 1 day or less

- ○ Effort estimate is the number of days to fix the problem

- ○ Findings from surveys or outlier data through quantitative measurements such as low success rate, high time to complete tasks or high number of errors produced.

- ○ List of usability issues with demonstrated examples from user input

- ○ These included a confusing account login successful page which did not allow customization of user account. There is not a reset password button as would be expected, and the form fills were confusing to users on what is a static box or meant to be a button clicked by a user. This led to confusion when students tried to reset their password and did not have a button to send the code and a box for them to enter the received code.

- ○ High level findings include general website flow, verified fully routable path to all webpages interlinked to one another throughout the site; usability score 100/100, quiz path to determine outcomes of learning style; usability score 80/100, desire for more simplistic design and scope creep with goal to add too many features to prototype, usability score 70/100.

9. Recommendations & prioritized roadmap

o   This contains recommendations produced from quality assurance testing and end

users. The recommendations are then graded based on severity and effort estimate

along with their impact to usability of the site.

o   Suggestions included correcting account login successful pages to include the

ability to edit account information, username, profile picture and a biography for

each student. The reset password page needs a clearly defined send code button

and enter code here text boxes to receive typed text. This needs to be discernable

as text entry fields as opposed to the currently confusing static non-interactive

boxes they currently are. Minor issues included issues of displaying course

listings which did not display in the expected location but did not interrupt

usability of the site but prevented it from looking like a finished product. The

account creation page needs to have a password confirmation as well to verify the

password is entered correctly as well. The demonstration for the course sections

did not have mathematics display properly within its text box. The demonstration

course schedule had Geometry not represented within its expected text box as

well.

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Works Cited

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