



Minnesota State University, Mankato Website Usability Test Report

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USABILITY RESEARCH & TESTING

Minnesota State University, Mankato Website

Portfolio Edition Note

This portfolio edition preserves the original research methodology, participant data, findings, and recommendations while refining the report's writing, organization, and visual presentation for professional portfolio use.

The original report was developed using a usability.gov report template as a starting point, with modifications to its content, structure, formatting, and visual style.

Original research and report: Dustin Smith

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Executive Summary

This usability study evaluated the Minnesota State University, Mankato website to identify opportunities to improve navigation, information discovery, and the overall user experience. Testing focused on three core measures of usability: effectiveness, efficiency, and user satisfaction.

Thirty participants representing a range of university affiliations and user personas completed remote, unmoderated usability testing. Each participant was assigned one of nine task-based scenarios reflecting common interactions with the university website, followed by a post-test survey. The study collected both quantitative measures, including task completion, time on task, errors, and satisfaction ratings, and qualitative feedback describing participants' experiences.

Overall, participants successfully completed all assigned tasks, resulting in a 100% task-completion rate. The mean ease-of-use rating was 4.3 out of 5, and the website received an overall Usability Score of 80 out of 100. Participants responded especially well to the website's search functionality and homepage, while lower-performing scenarios revealed opportunities to improve information discovery, search results, and sidebar navigation.

Based on the findings, three primary improvements were recommended:

- Increase search visibility by making the search interface more prominent and recognizable.
- Streamline search results to reduce information overload and make relevant pages easier to identify.
- Reorganize sidebar navigation to improve information hierarchy and make complex sections easier to navigate.

The findings demonstrate that the Minnesota State University, Mankato website provided a generally positive user experience while identifying targeted opportunities to make information easier to find and navigation more efficient.

Metrics & Findings:

30	100%	4.3 / 5	80 / 100
Participants	Task Completion	Mean Ease Rating	Usability Score

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Introduction

This usability study evaluates how users interact with the [Minnesota State University, Mankato website](#) and identifies opportunities to improve the overall user experience. Participants completed task-based scenarios involving different areas of the website, allowing the study to evaluate three core dimensions of usability: effectiveness, efficiency, and satisfaction.

Each participant was assigned a scenario representing a common website interaction, such as locating tuition information, finding university resources, or navigating application and academic information. A complete list of scenarios, tasks, and corresponding website pages is provided in Appendix C: Scenarios and Promptss.

Because the study was conducted within a limited budget and project timeline, testing used a remote, unmoderated methodology based on guidance from Schade (2013). This approach reduced direct facilitator influence during task completion and enabled participation from a broader range of users.

Thirty participants were recruited through email, the Mav Life mobile app, social media, and on-campus bulletin boards. Participants represented user personas adapted from prior UX reports by Chau, DiBono, and Newbauer and reflected a range of relationships with the university. Participants were expected to have basic computer, internet, and website-navigation skills.

The study combined quantitative measures, including task completion, time on task, errors, and satisfaction ratings, with qualitative participant feedback. Together, these measures were used to identify usability patterns and calculate an overall Usability Score for the website.

Methodology

The usability study used remote, unmoderated testing to evaluate how participants completed realistic tasks on the Minnesota State University, Mankato website. Quantitative and qualitative data were collected to evaluate patterns in task performance and participant experience.

Tasks & Scenarios

Testing consisted of nine task-based scenarios adapted from UX research materials developed by Chau, DiBono, and Newbauer. The corresponding user personas were also adapted from these reports. Each participant completed one scenario associated with a relevant user persona.

The scenarios represented common interactions with the university website, including locating tuition information, registering for a course, finding mental health resources, reviewing admissions requirements, and locating faculty information. A complete list of the nine scenarios and task prompts is provided in Appendix C: Scenarios and Prompts.

Participants

A total of 30 participants were recruited through direct email, the Mav Life mobile app, social media, and on-campus bulletin boards. Testing took place between March 15 and April 5, 2024.

Table 1.

Participant University Affiliation	Share
1. Faculty	15%
2. Graduate Student	15%
3. International Student	10%
4. No Affiliation	15%
5. Parent	15%
6. Staff	10%
7. Undergraduate Student	20%

Data Collection & Feedback

After completing the assigned task, participants completed a post-test survey. Participants first identified their relationship with Minnesota State Mankato and then responded to three questions using a 5-point Likert scale:

- **Ease of use:** How easy was the task?
- **User satisfaction:** How satisfied are you with the overall usability of the website?
- **Recommendation Likelihood:** How likely are you to recommend the website to others?

The survey also included open-ended questions to collect qualitative feedback about navigation challenges, easy-to-use features, and opportunities for improvement.

The post-test survey included three open-ended questions designed to collect qualitative feedback:

- What was the most challenging aspect of navigating the mnsu.edu website?
- What was the most straightforward or easy-to-use aspect of the website?
- What additional comments or suggestions do you have for improving the usability of the mnsu.edu website?

Test Sessions

Participants completed individual **remote, unmoderated test sessions**. Each participant received one task-based scenario and navigated the Minnesota State University, Mankato website independently to locate the requested information or complete the assigned task.

Each session was designed to take approximately **10 minutes**:

- Up to **5 minutes** to complete the assigned task
- Up to **5 minutes** to complete the post-test survey

Participants completed the survey after either completing the task or reaching the end of the allotted task period. When session recordings were available, they provided an additional record of how participants navigated the website while attempting their assigned scenarios.

Time on task (ToT) was estimated by the participants using a mobile device stopwatch timer. These measurements were later compared with task completion, errors, and participant satisfaction data during analysis.

Results

Quantitative and qualitative data were analyzed to evaluate participant performance and identify patterns in the usability of the Minnesota State University, Mankato website. The study's key metrics, task completion, time on task, errors, and participant ratings were each assigned a variable and later combined as part of the study's overall Usability Score.

Task Completion Success Rate

Variable C: (Task Completion = success rate / 4)

Task completion was used to measure whether participants could successfully complete their assigned scenarios without prompting. The success rate is the number of successes divided by the number of participants completing the task.

Across all 30 participants, assigned tasks were successfully completed, resulting in an **overall task-completion rate of 100%**. Qualitative feedback also indicated a positive response to the website's homepage. Approximately **18% of respondents** identified the homepage layout as the most straightforward aspect of the website.

Time on Task

Variable T: (Time Efficiency = $25 * \text{ToT} / 300$)

Time on task (ToT) measured how long participants required to complete their assigned scenarios. Average completion time varied according to the type and complexity of the task. Time-on-task data were unavailable for Tasks 7 and 8 because 10 participants did not record their completion times.

Table 2.

Scenario/Task	Average Time on Task (Seconds)
1. Locate tuition information.	188
2. Add/register for a course.	164
3. Locate mental health resources.	102
4. Apply for the master's program.	150
5. International admissions requirements.	180
6. Accessibility accommodations.	60
7. Faculty Handbook.	Not available
8. Locate events page.	Not available
9. Teaching & Learning FAQs	180

Tasks Rating

Variable S: (User Satisfaction = (Satisfaction-1)/4)

After completing their assigned tasks, participants rated their experience using 5-point Likert scales for **ease of use, user satisfaction, and recommendation likelihood**. The mean ease-of-use rating across the study was 4.3 out of 5, indicating that participants generally found the assigned tasks easy to complete.

The 5-point rating scale was also used to calculate user satisfaction. This scale ranged from 1 (Very Unsatisfied) to 5 (Very Satisfied). Satisfaction ratings combined with the mean agreement rating of 4.3 indicate that the users agree that scenario information is easy to find and that they can navigate the web pages to find where the information is located.

- **Ease of use:** Scenario 3, locating mental health resources, received the highest rating, with a mean of **5 out of 5**. Scenario 1, locating and calculating tuition information, received the lowest mean ease rating of **3 out of 5**. Participant feedback indicated difficulty with the degree-cost calculation process.
- **User satisfaction:** Scenarios 3, 8, and 9 received the highest satisfaction ratings, with a mean of **4.5 out of 5**. Scenarios 1 and 5 received the lowest ratings, with a mean of **3 out of 5**. Qualitative feedback associated some of this difficulty with sidebar navigation.
- **Recommendation likelihood:** Scenario 3 again received the highest rating, with a mean of **5 out of 5**. Scenario 5 received the lowest mean rating of **3 out of 5**.

Ratings Summary:

Table 3.

4.3 / 5	5 / 5	4.5 / 5
Mean Ease of Use	Highest Ease Rating	Highest Satisfaction
	<i>Scenario 3</i>	<i>Scenarios 3, 8 & 9</i>

Errors

Variable E: (Navigation Efficiency= 25 * Errors/5)

The original study classified task errors using three values:

- **0 — Direct success:** The participant completed the task using the expected path.
- **1 — Indirect success:** The participant completed the task using an unexpected path.
- **5 — Critical error:** The participant encountered a severe navigation error.

Recorded error data showed that **Scenario 5 had the highest average error score at 4**, while **Scenario 3 had the lowest average error score at 0.25**. These results indicate that Scenario 3 generally required fewer navigation deviations, while Scenario 5 presented greater difficulty during task completion.

Summary of Data

To summarize overall website performance, the study used a custom Usability Score ranging from 0 to 100. Four metrics were quantified Task Completion, ToT, Errors, and User Satisfaction, each representing 25% of the possible perfect 100% website usability score. The following formula was used in Microsoft Excel to calculate the Usability Score (US):

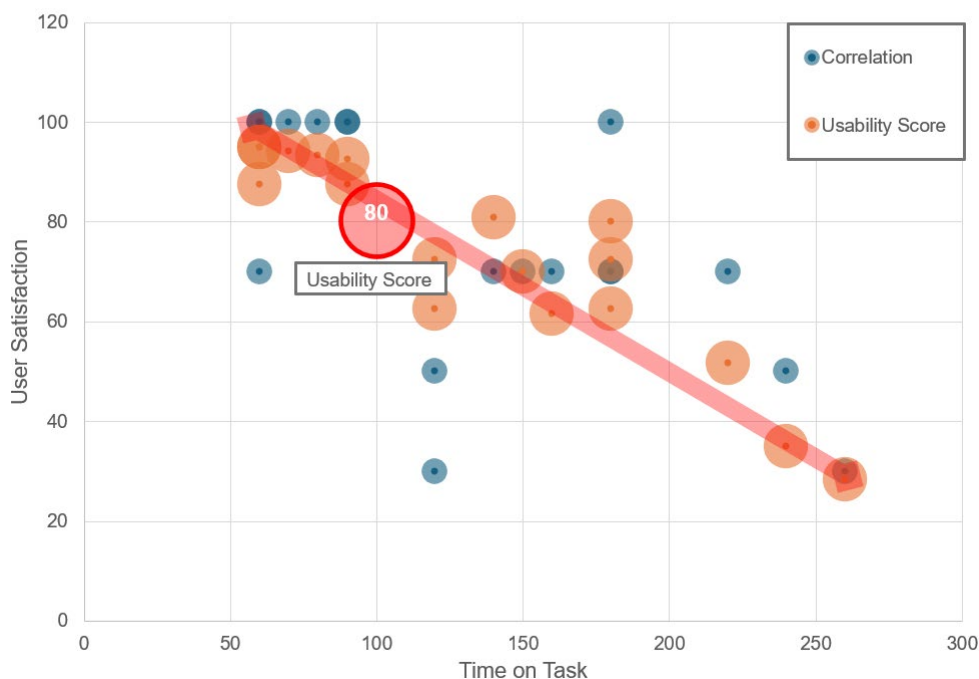
- $US = \text{Task Completion} + \text{Time Efficiency} + \text{Navigation Efficiency} + \text{User Satisfaction}$
- $US = (C/4) + 25(1 - T/300) + 25(1 - E/5) + 25((S - 1)/4)$

Overall Metrics

The task-completion metric was quantified using three outcome values: 100 for direct completion, 50 for indirect completion, and 0 for an unsuccessful or abandoned task. Time on task was measured in seconds against a maximum benchmark of 300 seconds, with shorter completion times receiving higher scores. Navigation errors were recorded as participants deviated from the expected path, with each deviation increasing the error score and a maximum value of 5 representing a severe navigation error. User satisfaction was measured using a 5-point Likert scale, with higher ratings representing greater satisfaction. Each metric was normalized to contribute a maximum of 25 points to the overall Usability Score.

The strongest results were associated with tasks involving the website's search functionality, while lower-performing scenarios revealed greater difficulty with navigation paths, search-result density, and information organization. The resulting composite Usability Score was 80 out of 100, indicating generally strong usability while also revealing opportunities to improve information discovery and navigation.

Figure 1. User Satisfaction and ToT Correlation



Participant Feedback

Open-ended survey responses provided additional context for the quantitative results and highlighted both strengths and areas of friction within the Minnesota State University, Mankato website.

What Participants Found Easy

- **Search functionality:** 60% of participants identified the search feature as an easy way to navigate the website.
- **Homepage layout:** 30% of participants identified the homepage as one of the easiest parts of the website to use and described it positively.

What Participants Found Challenging

- **Search visibility:** Although search was one of the website's most positively rated features, 20% of participants reported difficulty locating it.
- **Search-result density:** 15% of participants described search-result pages as overcrowded, making relevant information more difficult to identify.
- **Navigation density:** Participant feedback also indicated that some sidebar navigation menus contained too many subsections, contributing to information overload.

Participant Recommendations

Providing recommendations was optional. Among participants who submitted recommendations, **40% suggested adding a visible text field near the magnifying-glass search icon**, with wording such as “Search Keyword,” to make the search function easier to identify.

My Recommendations

Based on the qualitative and quantitative findings, the study identified three primary opportunities for improvement:

1. **Increase the visibility of search:** Add a clearly recognizable search field near the existing search icon. Because participants generally responded positively to search once they located it, making the feature more prominent could improve its discoverability.
2. **Streamline search results:** Reduce the amount of information displayed on search-result pages and prioritize the most relevant results. In Scenarios 3, 4, and 8, *40% of participants reported that the search experience returned too many results.*
3. **Simplify sidebar navigation:** Reorganize dense sidebar menus to create a clearer information hierarchy. *20% of participants reported overcrowded navigation subsections*, and scenarios requiring sidebar navigation received lower satisfaction ratings.

Together, these recommendations focus on making useful website features easier to discover while reducing information overload during navigation.

Conclusion

This usability study evaluated how users navigated and interacted with the Minnesota State University, Mankato website across nine task-based scenarios. The findings indicate a generally positive user experience, supported by a **100% task-completion rate**, a mean ease-of-use rating of **4.3 out of 5**, and an overall **Usability Score of 80 out of 100**.

Participants responded especially well to the website's search functionality and homepage. Scenario 3, which required users to locate mental health resources, produced some of the strongest ease-of-use and satisfaction results. Lower-performing scenarios revealed greater difficulty with degree-cost information, international admissions content, and sidebar navigation.

Qualitative feedback further identified three recurring areas of friction: difficulty locating the search feature, overcrowded search-result pages, and dense sidebar navigation. These findings informed recommendations to make search more visible, reduce information overload in search results, and reorganize navigation structures.

Overall, the study demonstrates that the Minnesota State Mankato website supported successful task completion while also revealing specific opportunities to improve information discovery and navigation efficiency. The findings provide a research-based foundation for future usability improvements and additional testing.

References

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Appendix A: Ethics Agreement

Participants are encouraged to review the ethics statement before participating and to contact the test facilitator with any questions.

By agreeing to participate in usability testing for the Minnesota State University, Mankato website, you acknowledge the following:

Respect for Participants

Participants will receive information about the usability testing procedure and data collection methods before taking part in the study. Participation is voluntary, and participants can withdraw from the study at any time.

Privacy and Confidentiality

Personal information and data collected during recruitment and testing are stored in a secure document accessible only to the usability test facilitator.

Participant Welfare

The usability test was designed as a low-risk activity. Because testing is conducted remotely and without direct moderation, participants can complete their assigned tasks in familiar settings and at their convenience.

Data Use and Sharing

Data collected through the usability test is used to evaluate and improve the usability of the Minnesota State University, Mankato website. If study data is shared for academic purposes, participant confidentiality is to be maintained.

Compliance

This study identifies the research as exempt from IRB review under section 45 CFR 46.104(d), based on its use of survey procedures, testing activities, and observation of participant behavior.

Dustin Smith

Test Facilitator

Appendix B: Post-Test Survey

After completing their assigned task, participants completed the following post-test survey designed to capture both quantitative ratings and qualitative feedback about their experience.

Figure 2.

How would you describe your affiliation with Minnesota State Mankato? *							
	Undergrad Student	Graduate Student	International Student	Faculty	Staff	Parent	None
Affiliation	☐	☐	☐	☐	☐	☐	☐
On a scale from 1 to 5, how easy was it to complete the task? *							
	1 (Difficult)	2	3	4	5 (Easy)		
Task Ease	☐	☐	☐	☐	☐		
Did you complete the task *							
	Yes	Partially				No	
Task Completion	☐	☐				☐	
If you did not complete the task, please explain what prevented you from doing so?							
Enter your answer							

What was the most challenging aspect of navigating the MNSU website? *

Enter your answer

What did you find most straightforward or easy to use about the website? *

Enter your answer

How satisfied are you with the overall usability of the MNSU website? *

Very satisfied

Somewhat
satisfied

Neither satisfied
nor dissatisfied

Somewhat
dissatisfied

Very dissatisfied

Overall Satisfaction

☐☐☐☐☐

Based on your experience, how likely are you to recommend the website to others? *

Very likely

Somewhat likely

Neither likely
nor unlikely

Somewhat
unlikely

Very unlikely

Recommendation Likelihood

☐☐☐☐☐

Please provide any additional comments or suggestions related to improving the usability of the MNSU website.

Enter your answer

Appendix C: Scenarios and Prompts

Participants completed task-based scenarios tailored to specific user personas. Each participant completed one assigned task and then provided feedback through the Post-Test Survey.

Scenario 1: Prospective Graduate Student

Prospective graduate students were asked to determine the total cost of a graduate degree program. This scenario evaluated how easily users could locate tuition and cost information.

- **Task prompt:** Open the MNSU website in a web browser on your desktop computer. Determine the total cost of your degree program.

Scenario 2: Current Student

Current students were asked to add a course to their schedule. This scenario evaluated the ease and efficiency of locating and using the university's course-registration resources.

- **Task prompt:** Open the MNSU website in a web browser on your computer. Add a 500-level course to your schedule.

Scenario 3: Staff

Staff participants were asked to locate university mental health resources. This scenario evaluated how easily users could discover and navigate to information about available mental health support.

- **Task prompt:** Open the MNSU website in a web browser on your computer. Find the university's mental health resources section.

Scenario 4: Graduate Student

Graduate students were asked to identify the application process for a master's degree program. This scenario evaluated the accessibility and clarity of application instructions.

- **Task prompt:** Identify the application process for the master's degree program and evaluate the clarity of the instructions. Determine whether the necessary steps are immediately available or require additional navigation.

Scenario 5: Prospective International Student

Prospective international students were asked to locate graduate admission requirements. This scenario evaluated how easily users could find information about the international graduate application process.

- **Task prompt:** Find the admission requirements for international students enrolling in graduate programs.

Scenario 6: Student Seeking Accommodations

Students seeking accommodations were asked to locate the university's accessibility resources portal. This scenario evaluated how easily users could discover and navigate to information about accommodation services.

- **Task prompt:** Locate the accessibility resources portal for students seeking accommodations. Identify how you accessed the portal.

Scenario 7: Longtime Adjunct Faculty Member

Adjunct faculty members were asked to locate the Adjunct Faculty Handbook on the Minnesota State University, Mankato website. This scenario evaluated how easily faculty could find employment-related information relevant to their role.

- **Task prompt:** Use your web browser to find the Adjunct Faculty Handbook provided by the Human Resources department.

Scenario 8: Campus Secretary

Campus staff were asked to locate the events page for the College of Humanities and Social Sciences (HSS). This scenario evaluated how easily users could find college-specific event information.

- **Task prompt:** Use your web browser to locate the College of Humanities and Social Sciences (HSS) events page.

Scenario 9: Faculty Member

Faculty members were asked to locate the Frequently Asked Questions page provided by the Center for Excellence in Teaching and Learning (CETL). This scenario evaluated how easily faculty could find answers to common teaching and learning questions.

- **Task prompt:** Find the Frequently Asked Questions (FAQ) page regarding teaching and learning at the university.