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# The B.S. in Technical Communication User Test

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Improving the User Experience

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## Introduction

The purpose of the B.S. in Technical Communication website is to inform current and perspective students about the requirements for the major and to persuade those currently not in the major to add technical communication as primary or secondary major or a minor. It is intended for high school and college age students and those related to them.

A usability test is intended to determine the extent an interface facilitates a user's ability to complete routine tasks. Typically, the test is conducted with a group of potential users either in a usability lab, remotely (using e-meeting software and telephone connection), or on-site with portable equipment. Users are asked to complete a series of routine tasks. Sessions are recorded and analyzed to identify potential areas for improvement to the web site.

Hannah Monk, a senior in technical communication, conducted two off-campus usability tests and one on-campus usability test using a live version of the Technical Communication website. All three tests were performed using the personal computer of the participant. Participants were asked a series of questions about what they knew about technical communication and what they looked for in a major. Their answers were written down on a notepad and recorded using the Voice Memos app. Subjects then did five tasks using the Technical Communication website while they talked out loud to explain their thought process. Their screen was recorded while tasks were being performed. After they used the website, subjects were asked another series of questions about their opinions on the information provided, the visual design, and the ease of use of the website. These answers were also written down and recorded using the same app. Each session captured the participant's knowledge about technical communication, navigational choices, task completion rates, comments, questions, and feedback.

## Executive Summary

The first two usability tests were held via video conference. Both subjects did the usability test in their own homes. The first subject used Microsoft Edge on their 21-inch Dell desktop computer on Thursday, March 5, 2020. The second subject used Safari on their 21.5-inch Apple iMac desktop on Saturday, March 7, 2020. The third usability test was held in Parks Library in a study group room on Tuesday, March 10, 2020. The subject used Google Chrome on their 13-in HP laptop. Each secession lasted about 15 minutes.

The three subjects were asked to answer three rounds of questions. The first round of questions was to find more about the participants themselves and their knowledge about technical communication and the Technical Communication website. The purpose of these questions was to find out if any of the participants would skew the results because of prior knowledge about the website or lack of interest in technical communication for the next two rounds of testing.

The second round of questions was to find out more about the usability of the website and the information flow by prompting the participants to interact with the website and do information seeking tasks. These questions helped provide quantitative data about length of time it took to do certain tasks and the number of errors made while completing tasks.

In the third round of questions participants were interviewed about their opinions on the information provided and the visual design of the website. This round of questions was to gather qualitative data through user feedback.

Users were unhappy or neutral about their experience while using this website.

The test helped identify a few problems with the website:

- One link looks too much like a header and there is a lack of indication that it is clickable
- Blocks of texts are difficult to read through
- Lack of relatable images
- Lack of information about what can be done with a technical communication major
- Out of date, incorrect, or confusing information

This document contains the participant feedback, task completion time, errors, and recommendations for improvements.

## Methodology

### Sessions

The test administrator contacted participants they knew had expressed interest in learning more about technical communication. Participants responded with an appropriate time and date they could do the usability study.

Each individual session lasted about fifteen to twenty minutes. During the session, the test administrator explained the test session then began the rounds of questions.

The first round of questions asked:

- If they had heard of technical communication
- How they defined technical communication
- What their current education level and field was
- What skills and ideas they looked for in a major
- If they had ever used a website to find more information about a major or minor
- If they had ever used the B.S. in Technical Communication website

After these questions were answered, participants were asked to navigate to the Technical Communication website and the second round of questions began. The questions were not written down, but the user was allowed to ask for the question to be restated as many times as they needed.

The first task for this round was to read the image on the right side of the page out loud. This allowed for the participants to practice speaking their thoughts while using the website and get them comfortable using the website.

The next four questions were information finding tasks.

- How many credits must a student have in a concentrated study area to graduate?
- Is an internship required to graduate?
- What semester is it recommended to take English 314 according to the 4-year plan?
- Is English 350 required for a technical communication minor?

After the information finding tasks were completed, the participants were asked a final series of questions about their opinion of the website.

- What do you think about the available information?
- Did your definition of technical communication change?
- What do you think about the visual design of the webpage?
- Would this website persuade you to major or minor in technical communication?
- What do you think could be improved about this website?

## Participants

Three participants, having the following characteristics, evaluated the B.S. in Technical Communication website.

### Age

Under 18	1
18-20	0
21-23	1
24+	1
<b>Total (participants)</b>	<b>3</b>

### Gender

Male	1
Female	2
<b>Total (participants)</b>	<b>3</b>

### Technical Communication Student Status

Perspective Student	2
Current Student	0
Parent	1
<b>Total (participants)</b>	<b>3</b>

### Computer Literacy

Low	1
Medium	1
High	1
<b>Total (participants)</b>	<b>3</b>

### Knowledge about the Technical Communication Major

Low	1
Medium	2
High	0
<b>Total (participants)</b>	<b>3</b>

### Knowledge about Web Design

Low	1
Medium	1
High	1
<b>Total (participants)</b>	<b>3</b>

The first participant was the parent of a technical communication student. They could define technical communication and they have looked at the B.S. in Technical Communication website a few years prior to the testing but not since then. The next two participants had never used the B.S. in Technical Communication website. One participant was a high school student with interests that aligned with the skills taught in the technical communication major. They had heard of technical communication before but could not define it. Another participant was a computer science major at Iowa State University and was thinking about adding technical communication as a minor. They have taken *English 314: Technical Communication* so they had heard of technical communication and could define it.

## Results

### Task Completion Success, Clicks and Time

Task 1: Find the number of credits need in a concentrated study area

Correct Answer: 6

	Final Answer	Time
Participant 1	Correct	8 seconds
Participant 2	Correct	37 seconds
Participant 3	Correct	12 seconds

Task 2: Find if an internship is required to graduate

Correct Answer: required

	Final Answer	Time
Participant 1	Correct	10 seconds
Participant 2	Incorrect	68 seconds
Participant 3	Correct	6 seconds

*Note: Participant 1 gave the correct answer but they expressed a lot of doubt that they were correct because of the wording of the internship paragraph.*

Task 3: Find the semester it is recommended to take English 314 according to the 4-year plan

Correct Answer: Sophomore year, semester 4

*Note: While sophomore year is the correct answer according to the 4-year plan, currently a prerequisite for English 314 is to be a junior so this information is out of date.*

	Final Answer	Clicks	Time
Participant 1	Correct	1 click	38 seconds
Participant 2	Partially correct	7 clicks	3 minutes, 22 seconds
Participant 3	Correct	1 click	26 seconds

*Note: Participant 2 initially gave an incorrect answer because they got frustrated after they couldn't find what they were looking for. They tried for 1:36 seconds after they gave their first answer until they finally found the 4-year plan.*

Task 4: Find if English 350 is required for a Technical Communication Minor.

Correct Answer: not required

	Final Answer	Clicks	Time
Participant 1	Correct	4 clicks	1 minute and 13 seconds
Participant 2	Incorrect	9 clicks	2 minutes and 46 seconds
Participant 3	Incorrect	2 clicks	33 seconds

Each of the tasks were created to explore how usable different aspects of the Technical Communication website is. The answers to the first two tasks could be found by reading the paragraphs; no clicking and little effort was required to find the answers. Despite this two of the participants searched for the information using Control F. The suspected reason for this is because of how dense and block-like the text is.

The answer to the third task was find out more about the links to the 4-year plan. Two out of three participants complained about how old the 4-year plans were before clicking on them. One of the participants also complained about the look of the subheading and the difficulty to realize that the text in the bulleted list were links.

The most unexpected findings occurred in Task 4. This answer could be found by clicking the Minor in Technical Communication link then clicking on the Technical Communication link once they were on the Minor page. All of the participants struggled to find the Minor in Technical Communication link. It is assumed this is because it looks more like a header than a link and the looks different to the other links on the page. Another unexpected result of this task was that none of the participants correctly used the links at the top of the Minor page. Participant 1 clicked on the English Minor link instead of the Technical Communication Minor link, scrolled back up to the links at the top, then scrolled all the way down to the Technical Communication Minor section of the webpage. The other two participants scrolled about half-way down the page then switched to searching for English 350 by using Control F.

## User Feedback

Question: What is the first thing you eye was drawn to when you opened this website?

Note: This question was asked prior to the tasks given, as soon as the webpage was loaded.

	Answer
Participant 1	The red header and that the major is in the Department of English
Participant 2	The image with the red writing
Participant 3	The donate button

### ***Opinions on the Information Provided***

#### Participant 1

“I think all the paragraphs are pretty wordy. I think that this creates a lack of visual interest and I don’t really want to read it.”

“I would like to know how marketable the major is. I want to know the job outlook and what kinds of fields you could go into and where you could work. There is nothing about that on this website.”

#### Participant 2

“The largest title on the page has the word requirement but there are no requirements listed.”

“I would like to see more information about why technical communication would interest you and what type of qualities you should have if you want to major in technical communication. There should also be something about the skills that you can learn. I don’t really understand what the theory and history would be about or what practical skills you would learn”

#### Participant 3

“There is no organization or grouping. Order of the information does not matter according to this website.”

“The paragraphs trying to explain rhetoric need to be rewriting. The information in the Theory and History paragraph doesn’t help explain what the theory of technical communication is.”

### ***Opinions on the Visual Design***

#### Participant 1

“It needs to a few more visuals to be eye-catching. If this is going to be a major where you do visual design or visual rhetoric, it would be nice to see examples of that.”

#### Participant 2

“I like the tiny boxes with the images in them. It is just a lot of black and white so I like the red text with the boxes.”

“I like that everything is bolded. If you don’t want to read, you can easily see if you want to read it.”

#### Participant 3

“It’s horrible Horrible headings. They look like headers. Color scheme is horrible. It doesn’t bring you eyes toward anything. There’s no indentation between headings.”

“The lack of bullet points and subheadings is horrible. I don’t want to read that much boring text.”

“It looks like a block of text. It’s horrible. Change the entire design.”



## Opinions on What Could Be Improved

### Participant 1

“It should show visual imagery and show students in jobs or workplace.”

### Participant 2

“Iowa State colors are red and yellow. You could add a little more yellow to the page to add a little more flair and increase interest.”

“Add what type of person would want to major in technical communication.”

“Have more personal information. Maybe add information about students.”

### Participant 3

“There should be a better separations of concerns and ideas.”

“Maybe you could add a side navigation bar show the information that is on the website and would jump to that section when you clicked on it”

Question: Would this website persuade you to add a technical communication major or minor?

	Answer
Participant 1	I think it needs to be updated
Participant 2	I think that part that could help would be the first paragraph where it explains what technical communication is, but no, I would add a technical communication major.
Participant 3	No

## Recommendations

Change	Justification	Severity
Change the design of the hyperlinks so they are consistent and look like they are clickable	It took all three participants time to realize that Minor in Technical Communication link was actually a link. It also took two out of three participants time to realize that the 4-year plans were also clickable.  Making the link style consistent will help lower the confusion on what is clickable and what is not.	High
Link to the technical communication section on the Minor page with the Minor in Technical Communication link	Linking directly to this section will cut down on the time that it takes students who want to add a technical communication minor to find the information they need.	Low

Change	Justification	Severity
Add a section showing recently graduated, employed alumni at their jobs or current students at their internships	<p>Two of the three participants expressed an interest in knowing the types of skills or careers that can be gained by have a degree in technical communication.</p> <p>All three of the participants expressed that the visual design should improve and adding images of current or past students would add more visual elements.</p> <p>One participant expressed wanting to learn more personal information about technical communication students.</p>	Medium
Format the paragraphs so there are more lists that people can scan instead of read	<p>The way people use websites is different than they way they read print media. People like to scan websites to find information quickly. This website is not very scannable.</p> <p>Two of the participants expressed a dislike for the blocks of text. Reformatting it to be more like a list would help fix that.</p>	Medium
Format the paragraphs so there are more lists that people can scan instead of read	<p>One participant noted that the title of the webpage is “Technical Communication Requirements”, yet there is no listed requirements. Adding the course requirements would change this.</p> <p>This would also help the internship requirement be directly stated that it is required.</p> <p>It would also create a way help reformat the information so it is scannable.</p>	Low
Update the 4-year plans	<p>One 4-year plan is 4 years old and the other is 6 years old. It seems like some of the information is out-of-data and course catalog does not match the information on this website.</p> <p>Two of the participants expressed concern at how old the 4-year plans are.</p>	Medium

## **Conclusion**

The overall opinion of the B.S. in Technical Communication website is that it does not have a great visual design and that the information is not formatted well. Participants had difficulty finding links because they were not obviously clickable and they did not want to read the paragraphs of text. Implementing the recommendations and continuing to work with users will ensure a continued user-centered website with more visual appeal and better information.