

Project #3 - v3
New additions are in purple
Build a Prototype

The point of this project is for students to build a working prototype that supports a user's task in a substantial way, with a focus on visibility, feedback, constraints, consistency, and affordance, and without focusing on perfect screen layouts or fancy interface widgets.

The task we will support is exactly the same as in Project 2, the use of SQ3R to read a textbook. This project should build directly on your work from Project 2. You are welcome to use other students' Project 2 work or ideas provided that you provide attribution.

Deadlines:

Friday, Nov 3, 10PM:

The initial Project 3 "Software Confirmation" assignment at:

<https://canvas.uoregon.edu/courses/230817/assignments/1539852>

Wednesday, Nov 8, 10PM:

An initial working prototype using your hand-drawn screenshots, showing some button and text field functionality.

Monday, November 13, 10PM:

A complete working prototype, and two PDFs that provide instructions:

(a) Designer's Instructions: How to set up and run the prototype, and save the user's data.

(b) User's instructions: How to use the prototype to do the task.

Please compress the one Azure file and the two PDFs into a single zip file.

I am asking students to use the Axure prototyping software.

I have tried numerous packages. Axure seems best for the project because it:

- Is free to students.
- Is available for both Mac and Windows.
- Can hold user-entered data on screens (if you set global variables).
- Is relatively easy to get started using, such as to just add a button and transition.

The first part of the project is for students to download Axure, make sure it works. You should probably start working on getting a student version (it seems to take a while to get it) because your use of Axure could easily go longer than thirty days.

The initial Project 3 "Software Confirmation" assignment at:

<https://canvas.uoregon.edu/courses/230817/assignments/1539852>

and is due Nov. 3rd. The assignment should be quick and easy.

The main part of the project is to build a working and user-testable prototype of a system to support SQ3R for reading a textbook. You should start with ideas you (or other students, if you provide attribution) generated from Project 2. You can use your paper prototypes from Project 2, but this will probably require you to first improve those prototypes, to make them more complete, such as in their content (actual text) or how completely the prototypes specify the interactions.

All Screen Images Should be Hand Drawn

The viewable content of the prototypes should be drawn by hand, scanned in, and imported into Axure. The main exceptions to this are text-entry fields, and button-edges to show where the buttons are. The main reasons for this include:

- To help you learn the classic design process in which ideas are first explored in an open-ended manner, and later nailed in specifics.
- To convey to all stakeholders, including yourselves, that these are initial ideas, not finished products.
- To keep the emphasis on the major decisions of how the system will display information, and provide opportunities for user input, rather than small details such as the exact size and placement of buttons.

Some guidance on drawing your screens by hand:

- All screens should be hand-drawn. Your handwriting should be neat and readable.
- Please figure out how to make compact scans. I have had good luck with: iPhone / Notes / Scan / send via email. Each hand-drawn screenshot should be < 500 KB before importing it into Axure. Try to keep your scans compact.
- Note that you will likely be editing your paper drawings (by hand, with tape and paper bits) and re-scanning, so work on streamlining your workflow to support this cycle.
- The SQ3R materials and textbook can be printed out, and taped into your hand drawings.
- For adding scans to Axure, Axure seems to permit JPEGs but not PDFs.

The chapter text that your system displays can be loaded in PDF or other digital format.

Two PDF Documents to Assist in Running the Prototype.

For the participant, on how to do the task, including any training materials necessary to learn SQ3R.

- Designer's Instructions: How to set up and run the prototype, and save the user's data. These are the instructions that the designer would follow, such as to:
 - Give a user the User's Instructions (described below).
 - Start the prototype: Open Axure (specifying the version number being used, and possibly the platform it was tested on), open <filename.rp>, select <Page x>, click on "Preview", and resize the browser.
 - Possibly the to-be-SQ3Red document in a PDF reader. (You should specify the PDF file and reader that is being used. Specify how to arrange the Axure prototype and PDF reader on the screen.
 - Save the user's data (so it is saved after the browser is closed). This would include the specific steps such as for taking screenshots. And perhaps even how you would save those screenshots in a date-and-time-stamped folder.
- User's Instructions: How to use the prototype to do the task. Such as:
 - Whatever training material that the user may need, and whatever tests will be used to confirm that the user has mastered SQ3R before doing the task (if you are assuming they know SQ3R in advance).
 - The specific tasks that the user is supposed to do. If there is a base level of knowledge that you expect them to truly get from the reading, you might give them some of these questions in advance. How they will know when they are done with the task.
 - A clarification that you are them to really do the task, not just form an opinion about the user interface.
 - An explanation of what parts of the interface they should use and look at, and what parts they should ignore.
 - A clear description of what to do when they are done, which could include *not quitting the browser*. Of course, a good prototype might make provide a clear ending point with a clear reminder to *please do not close the browser*.
 - Nothing that is not part of actually doing the task. For example, your user should not be taking screenshots for you. (Note: You should not be planning on collecting data remotely, such as over Zoom.)

Project Suggestions

- For the person running the prototype, on how to set it up and run it, and save the user data.

Think about who your target users will be. If they will be other college students, try to find material that would be somewhat interesting or useful to them. Perhaps an introductory science textbook that they would enjoy reading. The Huckin & Olsen chapter would be fine, but it might be a little dry for some students. **Chapter 1 of this free biology textbook would work well: <https://openstax.org/details/books/biology-2e>. You could have participants focus on Section 1.1, but provide the entire chapter so they can use the material at the end of the chapter as well.**

- You might end up doing some of your user observation studies over Thanksgiving break, so perhaps think about that audience and what they might like to read.
- Think ahead to how you will *teach* SQ3R to your users within the system, or before using the system. If you plan on having them learn it before using the system, this pre-training should perhaps not be an interactive process with you explaining it because this could create a social dynamic in which they will expect you to continue explaining it while they use your system. Pre-training should be done by having your user read a handout that describes SQ3R.
- Think ahead to how the system will present the user with reading material at the same time as presenting the user with the SQ3R training and assistance. It might be that you have two prototypes running side-by-side (with no communication between the two), or that you have a PDF viewer running alongside your prototype (again, with no communication between the two applications). “Pop up” windows in Axure might help with this.

Project Requirements

- The reading material should be something technical, such as an academic textbook.
- Please use a very limited set of “widgets” in your prototype, primarily buttons and text fields (optionally scrolling text fields). Screens that require scrolling is fine. Your toolkit should be limited to (a) focus on the basic presentation of information, control, and interactions and (b) to prevent you from spending a lot of time figuring out how to use the prototyping software, because this is not the point of the project.
- Please note that I (Anthony) am not an expert on Axure. Feel free to ask me questions about it, but I probably will not know the answer. You are somewhat on your own to learn enough Axure to do the assignment. This is one reason to keep to a small part of its toolkit.