

How to create a Process

This is a simple guide outlining the steps needed to develop a well-crafted **process** (a series of actions or steps executed to achieve a particular end). Watch [5 Stages of the Design Thinking Process](#) for an example of how to design a solution.

Note: Before you ever start designing a process, serious thought and discussion should be taken on whether or not an automated solution is even needed. This document does NOT address that critical aspect of design. The assumption here is that thorough discussion has happened, and a solution has been determined to be needed.

Outline

The steps to developing a process are listed below.

1. Understand
 - a. Avoid Assumptions
 - b. Acknowledge your Limitations
 - c. Research
2. Visualize the Goal
 - a. Inspect
 - b. Simplify
 - c. Confirm
 - d. Iterate
3. Build
4. Test and Feedback

Understand

You need to understand the issue you're trying to solve. This requires investigation. Start by interviewing stakeholders.

- What is the need?
- Who will the process serve?
- What are the challenges?

Please realize that you'll need to extract information from process stakeholders. Inevitably, they'll think of the process in general terms and fail to provide all the needed information. You'll need to ask probing questions, reframing questions in various ways, until the stakeholders reveals every specific step and possible exception in the process from their perspective.

Avoid Assumptions

Don't start with the assumption that a process must be done a certain way. Even if a supervisor passively provides directives (e.g., "You just need to have users fill out a PDF and email it to us"), avoid locking yourself into a rigid design path. Also, resist the tendency to simply replicate a paper process into a digital one. An optimal conversion is almost never a one-to-one process. Be flexible and open to creating a solution that fully addresses all process issues.

Acknowledge your limitations

As the lead designer, you may be tempted to rely solely on the tools you already know, regardless of whether they'll lead to the best solution. Sometimes it is far better to commit to investigating other solutions or other tools. Reach out to colleagues and campus offices for guidance on potential tools to consider. If a better tool is identified, consider investing time in learning how to use the tool. There is always a balance to strike between current knowledge and the investment of time and effort in the exploration of new skills. Please consider this investment especially when the current solution is limited.

Research

Standard online research and consultation with human resources from offices like CTS and CCI often yield valuable information on platforms and tools that can aid in developing a solution. Additionally, consider reaching out to sister institutions that may have already developed a solution for a similar process. Sometimes, your thorough research may uncover a low-cost or ready-made solution that you can replicate and deploy without having to build one from scratch. Regardless, once you have identified the system/tool you're using to build your solution, the "builder" (whether you, a campus office, or third-party vendor) will become a key stakeholder in the rest of the design process.

Visualize the Goal

Once you've developed a clear understanding of the process and identified the tools you'll use to create your solution, it's time to draft a detailed mock-up. This mock-up should depict the entire process, including each step and exception, as well as the tools or specific features needed for each part of the solution. Don't hesitate to sketch your mock-up on paper, as this is often faster than doing it digitally.

(1) Inspect

As you create a diagram, you may encounter pain points or design limitations that require redesign. Try to work out all the kinks on paper. Carefully walk through every step of the process, looking for flaws or missing steps. When possible, have an outside collaborator review the solution for feedback. Sometimes, a user who is completely unfamiliar with the process can identify confusing or unclear parts of the solution.

(2) Simplify

Whenever possible, aim to simplify your solution. As you iterate through the development process, look for efficiencies. Even at this stage, some steps may fall into the "we've always done it this way" category. Ensure each step is necessary and truly valuable. Focus on core processes and try to limit exceptions. For automated processes, it is often better to have a solution that is easy to build and deploy, handling 95% of the process, while leaving some exceptions to be managed manually. In an ideal design, everything would be handled by the system, but the effort required to account for every exception can be cost- and time-prohibitive.

Note: Your solution should communicate to users when the system will not work for their issue and provide guidance on how to resolve the issue manually.

(3) Confirm

Once you have a defined process, confirm with stakeholders that it meets their needs. Create a digital version of your mock-up and consider making a short screen-capture video to review the solution. Share this with your stakeholders and design team, providing clear instructions on how to give feedback. If

possible, schedule follow-up interviews. Even at this stage, you may need to prompt them to carefully consider each step. Inevitably, they may have overlooked important details, often exceptions that need to be addressed in the solution.

(4) Iterate

Once you have finished reviewing stakeholder feedback, revisit the entire process. Go through the Inspect, Simplify, and Confirm steps as many times as necessary to ensure your proposed solution meets every identified need. It is crucial that your “blueprint” is as flawless as possible to ensure the building process succeeds on time and within budget.

Build

Once you’ve crafted your solution, it’s time to build it. Meet with the builder and carefully review every step of the proposed solution. Ensure that you and the builder are in complete agreement about what the finished solution will deliver. When working with a third-party vendor, there are additional factors to consider, such as contracts, but those steps are beyond the scope of this guide.

Test and Feedback

Before fully deploying your solution, run live tests and gather feedback from end-users. Make adjustments to the design based on this feedback whenever possible. Ensure you test every feature of the design thoroughly (try to break it). Inevitably, there will be some flaws, and it is far better to address them immediately while your focus on the process is sharpest. Do your best to resolve each issue you can and tag those you can’t for future updates. Remember, no solution is perfect, and your efforts to deploy this new solution will be valued by stakeholders and users alike.