

Procedure Ideation

The goal of this assignment is to develop a plan for 3-4 procedures carried out in the same context of work. For example, recall how Bellamy et al. use the running example about the Espresso machine. One could consider how the use of this machine will involve numerous types of user scenarios and goals with their own set of tasks. In sum, your ideation work should consider multiple scenarios with connected goals/technologies.

This document guides you through a series of heuristics, i.e., a set of guiding prompts and questions, to consider the details of the scenarios, goals, and tasks that will inform your writing.

Copy this document to your Google Drive. Then, follow the instructions within each section. When you have completed it, submit a PDF version of it to Moodle.

Analyzing Your Audience

In this section, follow the guiding prompts to gather up a sense about your intended audience. Typically, you should conduct user research to qualify and verify such information. But, for the purposes of this exercise, it is fine if you rely more on your particular subjectivities. The point is to craft a more defined understanding of the audience.

Exigence: What is the occasion for these procedural instructions?

- Why are these procedural instructions necessary at this particular time and place? What issues/problems do these instructions aim to address?
 - These instructions aim to address basic user concerns, such as not knowing how to load paper into the typewriter or not knowing how to set margins or spacing.
 - These instructions may also be necessary when damage/long term degradation occurs to the typewriter and it needs to be repaired to continue use of the machine.
- Why is this issue important right now? What is at stake, and for whom?
 - Use of the typewriter cannot be continued without the knowledge of basic tasks, such as setting margins and spacing, loading paper, having a usable ink ribbon, a usable platen, etc.
 - The user is at stake of not being able to complete their written work on the typewriter.

Who is the audience?

Highlight some of the characteristics that you think might apply to the projected audience:

- Potential user (someone who's exploring the product)
- New user (someone who's getting started with the product)
- Intermediate user (someone who has used the product before)
- Experienced user (someone who's well-versed with the product)
- New professional (someone who is new to the field and probably new to your product)
- Experienced professional (someone who is an expert in the field but might be new to your product)
- Admin/Leadership
- New contributor
- Experienced contributor
- Other: [Consider a more specific actor with a more specific role to the context of your procedure. For example, a software developer, if the procedure concerned some tool/feature for developers.]

What are the audience's goals for these procedures? Develop 4 goals that all share the same context of activity with each other. Here are some examples to follow: 4 goals pertaining to making espresso drinks; 4 goals when playing Zelda: Tears of the Kingdom game; or 4 goals to improve one's basketball skills.

Answer: 4 goals that pertain to using a typewriter; replacing a typewriter ink ribbon, replacing a typewriter platen, removing a loading paper into a typewriter, adjusting margins and spacing in a typewriter.

What situations and reasons might have brought the readers to your document(s)?

Answer: New users might not be familiar with the basics of formatting, such as setting margins. Experienced users may have reached a point that their typewriter needs specific repairs or upkeep, such as a ribbon replacement.

How might they have come to find your document?

Answer: They were likely new to long-term typewriting care and were searching for specific upkeep/care tutorials.

What information do they already have about the product/feature?

Answer: They should know the basics of typewriter anatomy (carriage, paper bail, etc.), whether their typewriter is portable or not, etc.

What are the main questions readers are likely to have?

Answer: Main questions readers might have could be what are specific parts of a typewriter, how they work together, how they impact typing on a typewriter, etc.

Write Your User Scenarios

Based on the above information, write 4 scenarios that include the 4 main parts of information: Who, Motivation(s), Goal, and Important Characteristics.

You may not write a procedure for all of the scenarios in the end, but this will help you gather a sense of how many procedures you will need to write for the major assignment.

IMPORTANT: All of your scenarios should be within the same context of activity or tool use. In other words, don't write up 4 scenarios from 4 completely different contexts of activity. Here are some examples to follow: 4 scenarios pertaining to making espresso drinks; 4 scenarios when playing Zelda: Tears of the Kingdom game; or 4 scenarios to improve one's basketball skills.

Scenario 1: A typewriter user with intermediate experience in typewriter upkeep has written a large amount of text and has noticed that their typewriter is running low on ink. They would like to continue typing on their typewriter, and need to know how to replace the ink ribbon in their typewriter to continue their written works.

Scenario 2: An inexperienced user has just obtained their first typewriter, and are learning the basics of typewriter usage. They would like to start writing on their typewriter regularly, and need to learn how to change the paper in their typewriter.

Scenario 3: To replace a typewriter platen. A novice typewriter user has been using a vintage typewriter to complete a long piece of written work. They have been having difficulty loading and threading paper into the typewriter, and noticed that the platen is no longer rubbery and is making indents in the paper. They need to learn how to replace their typewriter platen, so that they can continue using their writing.

Scenario 4: A beginner typewriter enthusiast has just started to use their new typewriter. They know the basics of loading and removing paper, using the keys, and carriage return, but they are unfamiliar with formatting. They need to learn how to adjust margins and line spacing on their typewriter so that they can effortlessly format their written work as they desire.

Analyzing Your Audience(s) Tasks

Complete one of the following tables to analyze the tasks that you will write for each user scenario. A task analysis will help you develop a better understanding of the following questions:

- How much supporting reference and conceptual information to provide
- What level of “completeness” (low, mid, high) may you need to write the steps

Remember that this is meant to be an ideation exercise—not a finished draft of the actual procedure. Yet, it should help you develop an initial rough draft.

Refer to Bellamy et al.’s discussion and example of a task analysis in Chapter 1 for support, as you move through this analysis work.

Task Analysis for Scenario 1

Guiding Question	Details
What is the user-oriented goal? <ul style="list-style-type: none">• Do not fall into the function/feature-oriented goal.	To replace a typewriter ink ribbon.
What tasks does the user need to perform to accomplish the goal? <ul style="list-style-type: none">• Remember tasks are not the same as goals, and tasks are not synonymous with steps.• Steps are the more specific actions needed to complete a larger “high-level” task.• Don’t worry about sequence or the “completeness” yet.	<ul style="list-style-type: none">• Prepare work surface• Put on personal protection• Remove ribbon cover• Remove existing typewriter ribbon• Place new typewriter ribbon spools on spool shafts• Thread the ribbon• Clean typewriter interior and hands• Replace ribbon cover• Test new ink ribbon
What are the mental and physical steps involved in each task?	Mental: Decide what kind of ink ribbon to purchase Physical: Remove ribbon cover, remove existing ink ribbon, install new ink ribbon, replace ribbon cover, test new ink ribbon
Who performs the task?	Audience: A writer who is familiar with using a typewriter and the anatomy of a typewriter.

	<p>Experience: Intermediate</p> <p>Role: Writer/typewriter owner</p> <p>Authority: Has full authority to purchase and install ink ribbon on their typewriter</p>
When and under what conditions is the task performed?	<p>Requirements: Typewriter must be in useable condition, new ink ribbons must be purchased</p> <p>Limitations: User must be familiar with the anatomy of a typewriter</p> <p>Environment: This is likely performed in the middle of a written work once an existing ink ribbon has dried up</p>
What are the potential distractions to accomplishing the goal?	<p>Alternative path: Writing on a different medium; handwriting, using a digital device such as a tablet or computer.</p> <p>Exception path: Unable to purchase new ink ribbon, purchased incorrect ink ribbon</p> <p>Boundaries: May not have access to ribbons for their model of typewriter, universal ribbons may not fit typewriter spool shaft</p>
What does the user need to know about the task?	<p>Duration: 10 minutes</p> <p>Complexity: Easy for experienced users, medium difficulty for beginners.</p> <p>Frequency: Replace a ribbon every 500-750 pages of writing.</p>

What is the sequence of tasks or steps?

- Prepare work surface
 - Lay out plastic surface protection or paper towels to keep ink from staining surfaces
- Put on personal protection (ie: gloves)
- Remove ribbon cover
 - Gently release ribbon cover prongs from their grommets and lift from the typewriter
- Remove existing typewriter ribbon
 - Release the spring-loaded ribbon arms and lift each ribbon spool from their respective ribbon spool shafts
 - Unthread the ribbon from the ribbon vibrator
- Place new typewriter ribbon spools on spool shafts
 - Pull back one of the spring-loaded ribbon arms and place one of the new ribbon spools onto the ribbon spool shaft
 - Ensure that the ribbon coming off of the spool is directed toward the the back of the typewriter and is not twisted
 - Adjust the ribbon spool so that the spool shaft pin fits into the designated slot on the new ribbon spool
 - Ensure the ribbon is flush with the spool and let go of the spring-loaded ribbon arm
 - Repeat for the other ribbon spool
- Thread the ribbon
 - Locate the set of ribbon guides that are in front of the ribbon vibrator
 - Take the ribbon between each spool and feed it through the small slots on each side of the ribbon guide so that the ribbon between each guide is closest to the typewriter platen
 - Locate the auto-reversing brackets next to each ribbon spool.

	<ul style="list-style-type: none"> ○ For each ribbon spool, thread the excess ribbon through the slot in the auto-reversing bracket ○ Gently roll each ribbon spool so that the ribbon is taught, but not tightened too much ● Clean typewriter interior and hands <ul style="list-style-type: none"> ○ Carefully wipe any excess ink off of the interior of the typewriter and your fingers ● Replace ribbon cover <ul style="list-style-type: none"> ○ Line up the ribbon cover prongs with the typewriter grommets and reattach the ribbon cover ● Test new ink ribbon <ul style="list-style-type: none"> ○ Type out a few words to ensure the ribbon ink is installed and working as desired
What is the expected result?	To have a new ink ribbon perfectly installed.

Task Analysis for Scenario 2

Guiding Question	Details
What is the user-oriented goal?	To change a piece of paper in a typewriter.
What tasks does the user need to perform to accomplish the goal? (<i>Don't worry about sequence or the "completeness" yet.</i>)	<ul style="list-style-type: none">• Remove the existing paper, if applicable• Insert the new paper• Roll and adjust the new sheet of paper• Readjust the paper bail• Set the paper as needed to begin typing
What are the mental and physical steps involved in each task?	Mental: Decide what kind of paper to use Physical: Remove existing paper, load new paper, type to test the installation
Who performs the task?	Audience: A user who is new to using a typewriter, but familiar with basic components of a typewriter. Experience: Beginner Role: Writer/typewriter owner Authority: Full authority to choose desired paper and load into the typewriter
When and under what conditions is the task performed?	Requirements: Typewriter must be in useable condition, must have new and unused paper

	<p>Limitations: User must be familiar with the basic components of a typewriter, such as a paper bail and platen</p> <p>Environment: Users typically write when they have free time, replacing paper in the middle of written projects.</p>
What are the potential distractions to accomplishing the goal?	<p>Alternative path: Handwrite or use another device to type written work</p> <p>Exception path: Ran out of paper</p> <p>Boundaries: Accessible paper may not fit the typewriter margins, margin stops may not be able to work with a much smaller paper size</p>
What does the user need to know about the task?	<p>Duration: Less than 5 minutes</p> <p>Complexity: Easy for most users, medium for users unfamiliar with typewriter terminology</p> <p>Frequency: Load paper after every fully typed page</p>
What is the sequence of tasks or steps?	<ul style="list-style-type: none"> ● Remove the existing paper, if applicable <ul style="list-style-type: none"> ○ Pull back the paper bail to release its hold on the paper ○ Roll the platen knob forward until the existing sheet of paper is fully removed ● Insert the new paper <ul style="list-style-type: none"> ○ Thread the new sheet of paper downwards behind the platen roller ● Roll and adjust the new sheet of paper <ul style="list-style-type: none"> ○ Ensure the paper release lever is not activated ○ Roll the platen knob forwards, towards the back of the typewriter until the paper begins to come out from under the

	<ul style="list-style-type: none">o platen rollero Curve the paper backwards so that it is behind the paper bail● Readjust the paper bail<ul style="list-style-type: none">o Move the paper bail so that it is resting in front of the paper, and let it down● Set the paper as needed to begin typing<ul style="list-style-type: none">o Use the return lever to move the carriage to the left margin and begin typing
What is the expected result?	To have a new, clean sheet of paper loaded into the typewriter and ready for use.

Task Analysis for Scenario 3

Guiding Question	Details
What is the user-oriented goal?	To replace a typewriter platen.
What tasks does the user need to perform to accomplish the goal? (<i>Don't worry about sequence or the "completeness" yet.</i>)	<ul style="list-style-type: none"> • Prepare Work Surface • Remove typewriter accessories • Remove platen • Clean interior of typewriter • Transfer inner platen components to new platen • Install new platen • Install typewriter accessories • Test new platen
What are the mental and physical steps involved in each task?	<p>Mental: Determine if replacing the platen is more beneficial than having it serviced, determining what replacement platen to purchase.</p> <p>Physical: Remove existing platen and typewriter accessories, clean typewriter, install new platen, test new platen, reinstall typewriter accessories.</p>
Who performs the task?	<p>Audience: A vintage typewriter user/collector, or potentially a typewriter repair servicer.</p> <p>Experience: Novice in typewriter usage and/or intermediate in typewriter repair.</p> <p>Role: Writer/typewriter owner</p>

	Authority: Full authority to purchase and install a new platen
When and under what conditions is the task performed?	<p>Requirements: A replacement platen must be accessible. Users must also have access to tools such as a flat head screwdriver, phillips head screwdriver, needle-nose pliers, tweezers, a cleaning cloth, and lubricant.</p> <p>Limitations: Users must be very familiar with typewriter anatomy and ideally have experience repairing typewriters before.</p> <p>Environment: This task is likely performed during a dedicated hobby-time, free time, or during the work day for someone who often repairs damaged typewriters</p>
What are the potential distractions to accomplishing the goal?	<p>Alternative path: Ship to a typewriter repair servicer; complete work using another medium, such as handwriting or another typing device</p> <p>Exception path: User cannot purchase a platen for their model of typewriter, they are unable to access or use the tools necessary to complete the task</p> <p>Boundaries: May have limited workspace to fully disassemble the typewriter</p>
What does the user need to know about the task?	<p>Duration: 1 hour</p> <p>Complexity: Difficult for beginners, easy to medium for typewriter repairers</p> <p>Frequency: Rarely, only if repairing a vintage or damaged typewriter</p>
What is the sequence of tasks or steps?	<ul style="list-style-type: none"> ● Prepare Work Surface <ul style="list-style-type: none"> ○ Lay down a cloth to catch any screws or washers that may fall ● Remove typewriter accessories <ul style="list-style-type: none"> ○ Remove any accessories blocking access to the platen, such as

- the paper bail or paper support, if applicable
- Locate screws attaching the platen knobs
- Remove screws and pull the knobs off
- Remove platen
 - Locate the platen spring clip → this is a cylindrical metal piece coming out of the platen
 - Inspect the underside of the platen to determine if there are additional locking mechanisms holding the platen in the typewriter
 - If so, remove any clips or screws necessary to release those locking mechanisms
 - Press the spring clip and lift the platen to remove it from the typewriter
 - Be gentle while doing this → there may be springs under the platen that need to maintain their stiffness, so don't pull too aggressively if there is some resistance
- Clean interior of typewriter
 - Use a cleaning cloth to wipe down the surface of the typewriter interior of any dust or debris
- Transfer inner platen components to new platen
 - Some platens may have internal mechanisms or hardware. If that is the case, transfer these mechanisms/hardware to the new platen.
- Install new platen
 - Carefully insert the new platen and align it with the carriage/paper guides
 - Ensure the new platen is correctly seated in the typewriter and the spring clip is on the same side as the previous platen
- Install typewriter accessories
 - Reattach each platen knob by screwing the old screws back into

	<p>place</p> <ul style="list-style-type: none">• Test new platen<ul style="list-style-type: none">○ Insert a new piece of paper and check that the carriage return, paper feeding, spacing lever, margin stops, and line return are working properly.
What is the expected result?	A usable typewriter with a newly repaired platen.

Task Analysis for Scenario 4

Guiding Question	Details
What is the user-oriented goal?	To adjust margins and line spacing on a typewriter.
What tasks does the user need to perform to accomplish the goal? (<i>Don't worry about sequence or the "completeness" yet.</i>)	<ul style="list-style-type: none">• Locate and set the line spacer as desired• Locate and set the margin stops as desired.
What are the mental and physical steps involved in each task?	Mental: Decide what spacing and margin size is desired. Physical: Move the spacing lever and margin stops.
Who performs the task?	Audience: A new typewriter user with little to no typewriting experience. Experience: Beginner Role: Writer/typewriter owner Authority: Has varied authority to determine what spacing and margin size is desired; full authority for personal projects, limited authority for published papers with specific formatting requirements
When and under what conditions is the task performed?	Requirements: Typewriter must be in usable condition and paper must be loaded into the typewriter correctly.

	<p>Limitations: Users must have a typewriter.</p> <p>Environment: User is beginning a new written work.</p>
What are the potential distractions to accomplishing the goal?	<p>Alternative path: Use a different medium to write, such as handwriting or a computer/tablet/other typing device</p> <p>Exception path: Line spacer is missing/jammed, margin stops are missing/damaged</p> <p>Boundaries: margin stops may not be able to expand/retract to extreme paper sizes</p>
What does the user need to know about the task?	<p>Duration: Less than 5 minutes</p> <p>Complexity: Easy for beginners and novice users</p> <p>Frequency: Every time the spacing/margin size is changed or paper is reloaded</p>
What is the sequence of tasks or steps?	<ul style="list-style-type: none"> ● Locate and set the line spacer as desired <ul style="list-style-type: none"> ○ Locate the line spacer on the left side of the typewriter <ul style="list-style-type: none"> ■ The line spacer is a lever, accompanied by a series of numbers (typically, spacing 1, 2, and 3), located next to the carriage arm ○ Shift the lever to the spacing you prefer ● Locate and set the margin stops as desired. <ul style="list-style-type: none"> ○ To adjust the margins on a paper, or limit the text to a smaller page size ○ Locate the platen scale, also known as the margin scale. It will look similar to a ruler.

	<ul style="list-style-type: none">○ Locate the margin stops. These are metal tabs or brackets located near the margin scale.○ Slide the margin stops to the line associated with the margin size you desire.<ul style="list-style-type: none">■ To test the success of this margin setting, slide the carriage between each margin stop. The carriage should halt in movement at each stop.○ If you want to release the margin for a particular point of text, simply press the “margin release” button on the typewriter.<ul style="list-style-type: none">■ The “margin release” button is different for each typewriter model, and may be denoted by arrows, the letters “M-R,” or something similar.
What is the expected result?	To set spacing and margins on a typewriter perfectly.