
Rapid Prototyping: Make a Tool or Resource

Purpose of the Tool

PILOT-TESTING

Often it is helpful to use a pedagogical tool or resource to support the innovation work you are developing for your school or classroom. Such tools or resources may include rubrics, surveys, lesson planning templates, interview templates, protocols, slow looking guides, feedback guidelines, or even physical objects. While the Creating Communities of Innovation research team has developed many such tools, inevitably you will find yourself in a position where you need a particular tool to do a particular job—and none of the tools in the CCI suite of tools seem to fit. The purpose of this tool is to provide a structure for prototyping your own tools for just those occasions.

Suggested Time Commitment



You will probably need at least an hour to engage in this activity, and you will likely return to this activity throughout your innovation process.

When & How

This tool may be used at any time throughout the development of your innovation project, but may be particularly useful during the initial phases of developing your innovation. In some cases, you might use this exercise to help you rapidly prototype tools to meet a variety of needs. In other cases, you might have been thinking for a long time about a specific tool that you want to develop, and have some ideas about what elements will be important to include in your prototype. You may use this exercise to create entirely new tools, but you may also use this exercise to refine, hack, or tweak existing tools to suit your needs. This exercise is best used with your study group—so that you can bounce ideas off one another and consider how your prototype tools may function in various settings.

Steps

1. Brainstorm

Working with your study group, think of an aspect of your innovation project work that might require a new tool or resource. Articulate what you might need this new tool to do, then brainstorm some tools that could serve this purpose (e.g., a documentation tool, an observation protocol, a conversation starter tool, etc.). If you have already had this conversation and you know what type of tool you want to prototype, move on to the next step.

2. See what's out there

Once you have considered what type of tool you need, do a quick Internet search to see if such a tool may already exist. Consider some key terms you might use to conduct your search, and then see if what you find fits your purposes. If you find a perfect match, you're in luck! More likely, you'll find something close that is not a

perfect fit, but has potential as a starting place. Your search may also turn up no results, which will lead you to create a new tool from scratch.

3. Draft

Have pairs, small groups, or individual members of your study group spend a short amount of time making their own rough drafts of the tool you are trying to develop— either based on an extant tool you found online, or starting from scratch.

Example: Imagine you are working on an inquiry project in pursuit of the following question: How can the introduction of maker-centered learning opportunities help 8th grade students develop a greater sense of empowerment within the context of their everyday lives? As you engage in this work, you may determine that you need a self- assessment tool for your students. When you do an Internet search, you may come across the Agency by Design Inquiry Cycle, but find that it is mostly developed for teachers, and needs tweaking for self-assessment at the 8th grade level. Your work at this step of this exercise may involve tweaking the extant Inquiry Cycle tool to make it better work as a self-assessment tool for 8th graders. But perhaps what you are looking for is a co-planning tool that will help you coordinate your maker-centered learning exercises amongst your colleagues who teach in different content areas and are also engaged in this work. If your Internet search comes up blank when you look for such tools, then during this step you will make your own first rough drafts of a co-planning tool that suits your particular needs.

4. Share ideas

After your study group members have come up with either refinements, tweaks, or hacks of extant tools—or first rough drafts of new tools made from scratch—have each person articulate the different parts of his/her tool, and the purposes of each of those parts.

5. Compare

Compare the different rough drafts developed by each of your colleagues and discuss the strengths and weaknesses of each.

6. Select

Choose one tool you want to continue working on in the coming week. You could even take the most promising elements of each rough draft and combine them into a hybrid tool that you'll try out or further refine.

7. Try it out!

Try your tool in various settings—and report back to your study group members to let them know how well it worked.