

The Big List of Ideas of How to Work With Failure in Making

Or, strategies suggested by kids and educators to try out!

Strategies in activity design or preparation:

- Consider where you want students to struggle in their project. As the instructor/activity designer, think about where you want the “figuring out” to occur. What do you want the student to persist with? Where are they likely to struggle? How might you minimize minor struggles (or failures) to get students to a productive space?
- Decide for yourself when you’re okay with giving direct instruction and when you’re not. Think about sharing those “rules” for yourself with kids.
- Minimize constraints that add stress to projects as much as possible. (e.g., time, sense of finality).

Strategies for setting the stage:

- Focus on failing: Spend time at the beginning talking about how failures will happen during the making process and how it’s just part of the process. Talk about what you can do when something goes wrong. Record these strategies and post them where kids can refer back to them.
- Support kids in planning for their project: Guide them to identify a challenge that’s “not too easy but not too hard” for them (or, a “desirable difficulty” or “productive struggle”). Encourage the student to reach to that challenge point instead of taking the easy road.
- Use a troubleshooting protocol. Demonstrate a simple activity with four or five failure points and have students suggest ideas for how to work through the challenge. Document their ideas and post the list in a central location for kids to see.
- Incorporate reflection into the making process. Document failures and successes for self-reflection either in writing or drawings. Use the final journal as a form of accomplishment of where you have taken your project from start to finish.
 - Have students make their own journals instead of giving them out.

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How do you handle grand ideas that are just not feasible for various reasons?

- Brainstorm ideas and have consultation meetings with three or four students at a time. Include the available materials and time in your conversations, create a spec sheet, and prepare them for when things may not work out the way you think (using yourself as an example). Break down the feasibility for them, and if it does not match up, have them think about what else in their list is more realistic.
- Make a plan for what they can do after class to finish or add to their project. Include resources they might not know about (e.g., online resources or local workspaces).

Strategies in the moment:

- Model troubleshooting behavior. Refer back to a similar experience you've had and how you approached solving that problem. Or work on your own project in parallel and share with kids your own process.
- Resist the urge to fix it yourself.
 - Suggest that they seek out assistance from peers or online before providing direct assistance.
 - When approaching a youth working on a project, keep your hands in pockets or behind back to minimize likelihood of handling their projects.
- Meet a request for help with questions that can guide youth to find their own set of possible solutions. "What have you tried already? What did you do first?"
- Mix in words other than failure: iteration, drafts, fixable mistakes, not working how you wanted it to, a moment to learn from/discovery, hurdles ...

Troubleshooting strategies:

- Change your plans (How you're making it)
- Change your goal (What you're making)
- Change your materials (What you're using)
- Ask for help from the instructor
- Ask for help from a classmate
- Take a break and walk around
- Take time to learn a new skill
- Use a different tool
- Play with the material
- Play with a sample project or something else