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Open Exploration in a Makerspace: Best Practices - Renovated Learning

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8–10 minutes



OPEN EXPLORATION IN A MAKERSPACE *Best Practices*



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In *Open Exploration in a Makerspace: What it is and Why We*

Need it, I explored why having open exploration time in your makerspace is an important part of the learning ecosystem. In this post, I dig more into the practical stuff – how to actually make this work in your space.

Open-exploration in a makerspace is a time when students can freely explore different tools and materials with little to no structure and minimal supervision. In a library makerspace, this often coincides with walk-ins, where students freely come in during the day to work in the makerspace. Of course, this doesn't mean that the makerspace is available for open-exploration 24/7. Setting procedures and logistics will help students to know when it is available. You could allow for drop-ins only during certain time periods (before school and during lunch). You could incorporate open-exploration into what would usually be a more structured time, like an [afterschool Makers Club](#). Like most things with makerspaces, there isn't necessarily a right and a wrong way to do things. It's about trying stuff out, experimenting, iterating and figuring out what will work best for your school and your students.

That being said, there are best practices you can put in place that will help things to run more smoothly.

Tools and Materials

Look for tools and activities that can support multiple students at once without a lot of guidance. LEGOs, K'nex and other construction type tools are fantastic for this. Keva planks can also work well and are great because they are impermanent. This means students won't become too attached to their creations. A [LEGO wall](#) supports a creative space that needs no instruction. A

[whiteboard wall](#) and tables provide spaces for doodling, drawing and brainstorming.

[Perler beads](#) can be good, but they can also be messy and need a bit of supervision. Plus, you have to iron them once they're done. You can create a system for this where students leave their creations and come back and pick them up once they're ironed.

Robots can be good if you have student helpers who can assist students – otherwise you'll have to spend time showing students how to use them. The disadvantage with robots is that they mostly have a one-to-one ratio – generally, only one student can control them at a time. *For the purposes of open exploration, it's best to avoid tools that can only be used by one student at a time.* This isn't to say that you couldn't have a 3D printer running during open exploration time. But watching it slowly print something out is only interesting for so long.

Storage and Organization

If you want students to explore your makerspace in an open, unstructured way, you need to have the tools and materials *easily accessible* and *out in the open*. There's lots of fantastic [makerspace cart](#) options out there. Carts with open bins that let you see the tools, such as [Copernicus carts](#), can work great for this. While carts with closed bins are good for overall makerspace storage, they don't generally invite students to go digging into them. If you're thinking about an item that you need to secure, it might not be the best option for an open exploration time. You want everything to be accessible without having to worry about damage or theft.

Another good idea is to create [an intuitive organization system](#) so that students know where to put things back when they're done. Labels and signage are crucial for this – try to use words and pictures when you can to help your ELL or early literacy students feel included. Organizing by color works especially well with tools that are already solid colors like LEGOs or K'nex.

Maker Culture

A big part of the success of any open-exploration program in a makerspace is creating and having a [Maker Culture](#) in your space. It's important that students respect each other, the space and the tools. This is something that is a constant mission in the space. It starts with setting the tone at the beginning of the school year and it requires maintaining that tone throughout the year.

Slightly structured open exploration

Completely wide-open and unstructured open exploration might not work for every school. It's okay to add in a bit of structure if your school needs it. The main thing is to make sure that within that structure there's still student voice and choice.

Passive design challenges

Design challenges are generally activities done with a group of students all working on a common challenge or goal. A passive design challenge on the other hand, is asynchronous. By posting the challenge in the space for a set amount of time, students can come and work on the design challenge in their own timeline. For instance, you could post a passive challenge in your LEGO area to

build a model of a rocket ship that could take a LEGO minifigure to Mars. One advantage of passive challenges is that they can be optional – if a student would rather build a forest of LEGOs, they can do that. But if they're struggling for ideas or inspiration about what to build, the design challenge will help them get started.

Center-style stations that connect to curriculum or standards

Many school librarians, especially those who have worked in elementary schools, will be familiar with the concept of centers. Creating center-style stations, where students rotate through different guided activities, can be a great way to bring some structure into your makerspace. It can be tricky to design these stations in a way that still allows for student choice, but it can be done. The key is to make sure that the activity isn't so regimented that there's only one solution. While this wouldn't necessarily fit the exact definition of open-exploration, it can work well for many schools. This is especially useful if your school places a heavy emphasis on curriculum and standards

Logistics and Procedures

You want to make sure that you setup your logistics and procedures for your space early on. This includes deciding on logistics for open exploration time. Many of these logistics are also things you should decide for your makerspace as a whole.

[When is the space open?](#) ***How will students know when it's closed? –***

More than likely, your makerspace won't be available for open exploration all day every day. Some days you might have a class

in the space. Other days you may have to close for special events. Create a signal – maybe some signage, or having colorful lights turned on, that lets your students know when the space is and isn't available.

How much supervision do you plan to offer? Are there student helpers or even a secretary who can oversee the space when you're teaching classes/working with a student/checking out books, etc?

The answers to these questions will vary greatly from one school to the next. You want to make sure you have a plan. Some schools are fine with very little supervision, while others prefer to be more hands-on. Some librarians have lots of help to run the library space while others are solo. Find what works for you.

Will students need a pass that specifically states what they're doing?

If you want to make sure that your teachers continue to support the makerspace, you want to know that students using were actually intended to be there. It's tempting for students who were only sent to check out books or use a computer to drift over to the makerspace and lose track of time. So find a system that works for you. It could be laminated passes on a lanyard (like bathroom passes), or a specific box that teachers can check off on paper passes

Can students save their projects to work on later, or will they be taken apart?

Can they take projects home (i.e. Perler beads or origami)? This

might depend on the activity, but it's important to make sure it's clear early on. Some projects might always come apart afterwards (like Keva planks), while others might be saved (K'nex or LEGOs). Some craft projects could be make-and-takes while others might be things you want to keep and display in the library. Whatever it is, add some signage to make things clear. Mention it to students when they first start the activity.

Do you have Open Exploration time in your makerspace? What are some strategies you've found to help it run smoothly?