

Creativity through Collaboration

KATHRYN YORK (PRODUCER): Hello and welcome to the Big and Little Podcast.

[MUSIC PLAYING]

My name is Kathryn York, the Museum's Digital Content Manager, Podcast Producer, and today's host. In today's episode, we're continuing our creativity series with a conversation on the importance of connection, collaboration, and community. Joining me today are three educators across different institutions who connected through the LEGO Playful Learning Museum Network and a shared interest in tinkering inventive playsets. We'll learn more about tinkering inventive playsets shortly. But first, let's meet our guests.

First up is Nick Villagra. Nick is a STEM educator at the Connecticut Science Center with a background in engineering. He's responsible for developing and delivering science experiences, including classroom lab programs, gallery science activities, and stage shows. Next, we have Michael Wong. Michael is an informal educator and tinkerer with a background in fine arts, jewelry manufacturing, and learning design. As a museum educator on the Exploratorium's Tinkering Studio team, he collaboratively designs, facilitates, and reflects on tinkering experiences for kids and adults.

Finally, Brendan Takenaga will be joining us from here at Boston Children's Museum. Brendan is a STEAM educator and has been working at the museum for about four years. He has a background in biology but also loves to learn about different processes and tools for creating things, with a specific interest in woodworking and laser cutting. In this episode, we'll discuss where creativity exists in our work, the power of inspiration, half-baked ideas, and open communication between peers. Without further ado, let's dive in.

Hi, everyone. Thank you for joining me on the Big and Little Podcast. Today, we're welcoming three representatives from the LEGO Playful Learning Museum Network-- Michael from the Exploratorium, Nick from the Connecticut Science Center, and Brendan from here at Boston Children's Museum. Now I'm going to give you all the opportunity to introduce yourself. So Michael, why don't you start?

MICHAEL WONG: Thank you, and thanks for having me. My name is Michael Wong. I'm a museum educator in The Tinkering Studio at the Exploratorium in San Francisco.

NICK VILLAGRA: Hi. Great to be here. My name is Nick Villagra. I'm a STEM educator at the Connecticut Science Center in Hartford.

BRENDAN TAKENAGA: Hi, everyone. My name is Brendan Takenaga. I'm one of the STEAM educators here at the Boston Children's Museum.

KATHRYN: Well, thank you all for being here. So today, we'll be talking about creativity, collaboration, and the benefits of connecting with individuals from other institutions. Nick, I was hoping you could start us off by telling us a bit about how you all first came together and who all is involved in your particular community of practice.

NICK: Absolutely. So, our three institutions are part of something called the LEGO Playful Learning Museum Network. This was an initiative that started by the LEGO Foundation in 2021. LEGO Foundation

is very interested in learning through play, and they recognize that learning through play happens a lot at science centers and children's museums.

And so what they thought was that if we were in the same room together, if we were sharing ideas and best practices, we can elevate our work together. So as part of being in this network, we have representatives from our institutions who attend webinars, and we talk about all kinds of issues that relate to our work. And then, finally, there's this in-person workshop at one of the member institutions where we can get even deeper into our collaboration.

And so it is at this in-person workshop that Brendan and I first met and some other members as well, and we saw a bunch of cool stuff at our wonderful host, the Exploratorium. One of the highlights was this style of programming that we hadn't been familiar with, Tinkering Inventive Playsets, where we got to play around with all kinds of materials and inventive ways. Like for example, there was this one activity where you had all these pencils and spoons on clips, and you could create these intricate sculptures to balance on a post, and it was so fun.

And we had these-- another activity, these motorized pinwheels that played a xylophone and this weird like cuckoo clock bellows mechanism, and it was just tons of fun. And after this in-person workshop, I thought, this is something that we want to do at the Connecticut Science Center. And we figured that a lot of other institutions in the network were interested in this as well. It's not just us three, by the way. It's 17 museums as part of this network. And so we thought--

KATHRYN: Oh, wow.

NICK: Yeah, there's a big group of us. And so we thought there'd be a lot of potential partners who'd be interested in talking about this more.

KATHRYN: No, it's great to hear about the inception story of your group and how you've all worked together and kind of got inspired by a lot of the same concepts and playful learning. So I'm going to pass it over to Michael now if you want to define what is Tinkering Inventive Playsets for us and also share a bit more about how your community of practice operates.

MICHAEL: Yeah, thank you. So as Nick introduced, we are part of a much larger group of this museum network. Within that network, we have six subgroups that we call theme teams that explore a wide variety of different content and areas of interest for museums and community partners. The one that we're talking about today, Tinkering Inventive Playsets, that we abbreviate to TIPs, is a group of currently 31 members representing over a dozen institutions.

And what we, within Tinkering Inventive Playsets, do is really look at physical hands on experiences that we can share across our museums, our networks, with our community partners. And these Tinker Inventive Playsets are designed to be really durable sets of parts that allow participants to explore different STEAM phenomena. So for example, we've got sets that look at balance. Some that allow people to explore light and shadow explorations.

But the core of a Tinkering Inventive Playset is that they're very hands-on, so you're able to directly engage with a different phenomena. They're open ended so there's no one right way of using them. There's no final end goal of using them. Everyone can approach them from different standpoints and end at different points as well.

They're designed to be really playful, as is in the name of the LEGO Playful Learning Museum Network. Everything we do is ideally playful. And we want these experiences to be something that you, as a

participant and as a facilitator, can return to again and again and the experience will grow as your learners grow and as you want to change that experience.

Finally, I would say that they're really objects to think with for us also as facilitators and as experienced designers. They allow us to create things to test things to see how people use them. And from that, we can iterate and improve on these experiences.

KATHRYN: I love what you were saying there about the experience of both the facilitator and the participant. I think that's something that at least I wouldn't think about as much. I'd be thinking a lot more about what are people getting, what are the people that are using this getting out of it. But I think it's so important to think about the learning that can happen on both sides. So I love your mention of that.

MICHAEL: I would say that is such a big benefit of this network as well is that, yes, it gives us ideas for how we can engage our learners and our participants and visitors. But it also gives us a whole network of people that we can learn from and share ideas with and leverage their ideas for our contexts.

KATHRYN: And we'll definitely be talking about that a bit later as we delve into more of the components of creativity and also what we can learn in creative community. So thank you for introducing those concepts. To go deeper in a little bit about the group dynamics and how your group operates and connects, I want to hear a little bit more from Brendan and Nick to hear about how you communicate within your group. So starting with Brendan, can you talk a bit about what open communication looks like within your group and how is it beneficial?

BRENDAN: Yeah, so I can speak a little bit about how we talk to each other in the main forms of that. So the group or the TIPs group has kind of three main forms of communication. The main one being we have a Slack channel. And pretty much this is just a place where we can all share ideas or programs we're currently doing or working on. And it's just about sending updates to everyone or kind of sharing what you're working on, or asking for feedback or just posting something fun you've been doing at wherever you work.

We also have monthly Zoom meetings for the TIPs group. So Nick was kind enough to, at the start, schedule these kind of monthly meetups where everyone is invited. It's, of course, not mandatory that you come, but these are a way for everyone who's interested to come together, and it's like an open time to share something you've been doing in the past month or something you're looking forward to doing. And the point of this, I think, is for all of us to stay on the same page about what we're working on and for anyone who maybe you're interested in something and you hear in one of these meetings like, oh, that other person is doing the same thing that I was thinking of and you can connect after to talk about it. And we also have, in between the monthly Zoom meetings, we oftentimes people will say, hey does anyone want to just jump on a Zoom call at some point in the next week and just talk about such and such and that kind of just pops up naturally and I think it's important to say that kind of thing is encouraged in our group to have very-- it doesn't have to be like a formal meeting it can just be like, hey you want to talk about it and I think everyone's always on board if you're to share what they've done or their experience or kind of help brainstorm things.

And I think as far as open communication goes, I think the biggest thing we all as a group agree on is sharing the like unpolished, unfinished ideas or projects we're working on, and we all kind of call those half-baked ideas. So the idea is like we aren't all working on things at our own institutions and then over like several months polishing them ourselves and then just going on the Slack channel and saying like

hey guys, check this out. This is like the thing that I've created. It's finished. It's done now I can share it with you.

It's actually the opposite. I think we're all like encouraging each other to share, even if it's just an idea in your head that popped into your mind that day to share that. And I think this can be beneficial because sharing an idea or something you're working on can cause a chain reaction. So oftentimes, someone else might get inspired and take that idea to completion, or they can sometimes take it in an entirely new direction.

And I think we're all interested in the process and how we can all help each other along that process.

KATHRYN: I love what you had to say about the sharing half-baked ideas and also the aspect of being comfortable doing that because I think it is hard, especially like when you're working on something, and you get it's hard to be like this isn't complete and I'm showing this and I am getting feedback even though I know that there are things that need to be improved on. But I think there's a real beauty and power of being able to share those things and either like getting inspired or like getting feedback early so that you can actually start to make changes and maybe even move quicker along the way.

So I wanted to throw it over to Nick now because I know you had some other thoughts on what communication looks like and what, yeah, all of that.

NICK: Absolutely, yes. So I think it's important to try to compare what we're doing with what maybe another educator is doing that is not part of a network. Why is what we're doing maybe better, maybe innovative? Because certainly, we're not the only educators out there that are coming up with hands-on activities. There's plenty of people in our field who are doing it.

But what's really great about having a network of fellow educators that are working in parallel, we call this parallel prototyping, is that we can inspire each other. We can get new perspectives that we wouldn't have had before. And really critical is that we've personalized our relationships. These are not--

We're all friends. We know each other. We get along together. And so it sort of breaks down this barrier of reaching out. There's no reservation about reaching out. We can do it informally as frequently or infrequently as we please. And it just makes a lot more fun and rewarding to develop an activity that way.

So, in contrast, without this network, many educators do what I certainly did when I was first creating programs is that I would just go on the internet and just Google STEM activity and sort of comb through the Google results and try to find something that resonated as sort of a starting point. But you can't talk to the person who created that instructable or whatever it is you found, or maybe you can but you don't know if they're going to reach back out again.

And so you can have this back and forth that just is, like I said, just really fun and leads to some really surprising and rewarding results.

KATHRYN: No, that's really true. I mean, think about whenever I get stuck, and I'm like looking for answers, and the first thing I go to is like Google or just something like that and really all the answers I get are so stagnant. And like they're not really answering the question and like sometimes really what I need is just like a conversation and to move it forward and to be able to talk to people who are in that same field of interest and field of thought it's such a benefit to you all and to one another that you're able to do that.

NICK: Yeah, definitely.

KATHRYN: So talking like-- thinking a little bit more about the collaboration piece, we've talked a bit about what it looks like virtually and the different communication styles. I'd also love to hear a little bit more

about what the in-person collaboration looks like. And I do know that you had the Play Make Learn Conference in Madison this past year, and also there was a meetup right here at Boston Children's Museum.

So I wanted to throw it over to Michael now to share a little bit about your visit to Boston and how you all work together in person. So what is it like to bring this collaboration to life out in the world?

MICHAEL: Nick and Brendan have touched on a lot of the real benefits of the community and I think that meeting in person really just enhances that. So Brendan was kind enough to host us at the Boston Children's Museum back in April, and a bunch of us went. It wasn't just myself and Nick, but some of our colleagues. So Steph from the Exploratorium and Nate and Andrew from Connecticut Science Center were also able to join.

And it was a really great opportunity for us to connect obviously to learn. I think that's where a lot of this the friendship that Nick was talking about earlier was also really founded was because we were able to take a virtual connection and relationship and actually hang out and have a meal together. As we all kind of experience during the pandemic, there's nothing better than hanging out in person.

KATHRYN: Yes, totally.

MICHAEL: But as was also touched on earlier, it gave us a window into each other's worlds, into each other's work, into each other's materials, and how we work with our different audiences because we all have really different audiences. So being able to be together, we also were able to physically explore different ideas together. And one thing that we really focused on were this different ideas around light and shadow and how we all of our museums explore light and shadow in different ways.

So light and shadow for us is an activity that explores, well, just that light and shadow. But it's through playing with different materials and materials that have different properties. So for us at the Exploratorium, we like to think about materials that bend, block, and bounce light as really interesting areas of exploration. And for us, being physically there in Boston allowed us to set up actual stations where we brought materials and we were able to play with them together as three different institutions with this shared interest in this one exploration space.

And I think it was really fascinating to see how we work because of our different audiences. So obviously, being at Boston Children's Museum, we're focused on a younger age group than what the Exploratorium naturally focuses on normally in day-to-day. And we learned so much through that playtime around the materials that we're using, but also around like the age groups that we're focusing on and what do we want our learners to engage with in any of these experiences.

So that was really, really valuable for us. And it was so interesting to have an insight into how each other works with the same phenomena and often with the same materials but we are able to achieve very different outcomes depending on our target audiences. Ultimately, it was just a great moment for us to be able to see each other's points of view to engage with them because as much as I love working with the team at the Exploratorium, we also come from a specific point of view with a specific focus. So it's great to be able to break out of that a bit.

KATHRYN: I love what you're saying there. I think the piece about being able to build a friendship is way more important than we give it credit to. I think when you enjoy working with the people and when you have that match of passion, you can create so much better things than if you're all kind of like begrudgingly must do this must get it done. I think it does so much when you actually are like care about the people that you're working with.

And then the other pieces that you touched on with being able to play test together and the aspect that while you all work in STEM and like museum roles, it's also your institutions-- we each cover different age range, we each have access to different materials, and also just bring different perspectives. So I think it's really great that you were able to see what that looks like and also really see how people work in person. So thanks for sharing about that.

As you know, the museum is producing a series on the topic of creativity, and we're curious to hear different individuals thoughts on where creativity exists in their work and how we can bring creativity out, whether that's through ourselves or even with people we're working with or with kids. This question is going to be to all our guests. But I'm going to ask you to speak to where the creativity exists in your work and how are you creative through collaboration.

So, to start, I'm going to give this to Brendan and then we can take turns and just start sharing. So go for it, Brendan.

BRENDAN: This is an interesting question because I think for the three of us we think this question got us all to think about to really think about where the creativity lies in the work because I think obviously at face value, yes, I think we're being creative in some way, but it's like really pinpointing where that happens or how it happens takes some thought.

I will say, speaking for myself, and I know all the three of us come from different backgrounds and have been doing this kind of work for different amounts of time, but I think, me personally, I feel like I often hear what other people are working on in this group and it kind of gives me like a list of possible options to consider doing at the institution I work in, which is the Boston Children's Museum.

So sometimes I'll take someone else's idea and consider that's really cool. Does that work for us and for what I'm doing? So the audience I'm aiming to hit, does that kind of concept fit for me? And then maybe it does, and maybe it doesn't, and that's OK. But I think that's one of the benefits.

I also think that a key part of being creative in how that comes about in this work is meeting with the group often kind of inspires me. So maybe in the moment, we're all talking and sharing what we're doing and like a Zoom meeting, and I'll be pretty excited to hear everyone's work, and I'll be like, that's cool. That's cool.

And what happens then is maybe when I leave that Zoom meeting, I'm like, inspired to continue doing the work I'm doing or it'll just like put me in a place where I'm more likely to be creative. So I think that's a really big factor of how that creativity kind of comes about for me.

KATHRYN: I love that inspiration component. I think that's pretty big.

NICK: Just to build on that, yeah, I agree completely, Brendan, that being inspired is so important that a big part of this community is riffing on each other. It's like jazz. You know, someone will try some sort of a style and activity, get inspired, and make some slight variation that personalizes it or makes it fit in the context better for that specific audience.

Just take an example back to light and shadow. We were really interested in all of the explorations that we saw at Boston Children's Museum. And earlier, we had been inspired to take this concept in and turn it into a space-themed activity and we ended up making a motorized turntable with a sun casting a shadow and exploring eclipses in this way. And so this all started from just a single concept of just light and shadow. But it can go in a ton of different directions.

So that's the thing that's really cool is that from one little concept, there's so many possibilities and that's what creativity is all about.

KATHRYN: Totally. Michael, did you want to add on?

MICHAEL: Yeah. Just to pick up on Nick's jazz kind of analogy, which I really love. I do think that it's very true. We have to be very creative in how we adapt ideas to different contexts. I mentioned earlier different age groups but also just different environments.

Sometimes, the people that we're working with don't necessarily have a museum floor that they're always manning or their programming has different lengths or different focuses. And so there's real creativity in adapting not just the phenomena for different investigations, but also adapting that phenomena for different environmental situations. And I think creativity really comes out there even if it isn't always like the focus of when we're trying to be creative. So I think that's one element of creativity that I've really valued in seeing how other people are working.

KATHRYN: Oh, my gosh, I do love that analogy to jazz and riffing off one another, and maybe it's combining or adapting and kind of being, like, let me actually take this a little bit of a different direction because I'm working with the 0 to 3 crowd and not with an older age range. So I love that. Thank you for mentioning.

This is a great transition as we are kind of thinking about one of the things that you're mentioning is the ability to adapt. And so part of that is adapting to context, adapting to age, adapting to environment. So I want to talk a little bit more because our listeners here aren't all museum educators. Some of them may work in the classroom. Some of them may be parents and they may be curious how to get their kids inspired when they're at home.

I want to hear from you, Nick. What are your recommendations for how listeners can scale this type of work to their classroom, at home, smaller organizations, et cetera? What are your thoughts on this?

NICK: Sure. So we were fortunate enough to be part of this network. But this concept of being a network doesn't have to apply to museum educators. This field it can apply to formal education. Really, what's fundamentally important is that you have a thought partner. And it doesn't have to be that many people. Maybe it's just one other person.

But just getting your ideas out of your head and sharing them, speaking them, elaborating on them with someone else, it goes a long way towards building sort of confidence behind the creativity, getting a sense of direction and, again, a sense of inspiration. And so I would just encourage anyone who's developing an activity, in whatever context it happens to be in, to find a buddy to reach out and talk about that idea with someone else who is in a similar mindset as you.

And you can do it in small ways. It doesn't have to be big, fully formed activities like we talked about. The important thing here is half-baked ideas just tentative steps, just to feel out whether this is resonating with someone else. And then it's surprising how much this can build.

If two people are getting inspired about something, that's probably a good sign that someone else is being inspired by that as well. It's contagious, and let it spread, let other people into that community and be proactive about seeking out people who may be interested in a similar topic.

KATHRYN: Totally. And I think like your point about reaching out, finding a thought partner, and even a community of two is you've doubled one, and you're like you're already growing and finding people that are interested and to share ideas and grow together. So I think that's great.

Speaking to the components of creativity a little bit more, I want to circle back to some of the concepts that we talked about before. And we talked about some inspiration. We talked about the ability to connect

and share ideas, half-baked ideas. So beyond the final product, what are some of the types of things that you can learn in creative community? And I'm going to start with Brendan here.

BRENDAN: I think one of the biggest things that I feel like I've learned is to spend less time thinking and more time just doing. I'll share a more concrete example. I did try the light and shadow exploration that Michael was mentioning earlier, and I remember thinking a lot about the materials and the setup and if it would go a certain way with our audience, what would be different.

And I think at some point, I realized you just have to try things out to push past that. And I think with this group being so encouraging about just putting your thoughts and ideas out there and sharing, I think that's helped me kind of get to that point or to do more to get out on the museum floor and just try things and see how it goes because I don't think things ever go as poorly as I think they could go because I think the worst case scenario in my head is always nowhere. It's always way worse than like what actually happens.

Things can be unexpected, or things might be-- they might go in a different direction than I thought they would, but it's never as bad. So I think this group has been pushing me to do more rather than think about it too much. And I think I always come away from that process learning a lot more than if I had just sat there and continued to think about things in my brain.

KATHRYN: I think that's really important there. I think it's easy to get stuck in your head and not take action and get just like caught up in what is the worst-case scenario here. And most times, the worst case scenario is not what's going to happen, like maybe things won't go quite as planned as you were saying, but there also might be some good things that come out of it, and I think getting the confidence to talk with other people and be able to empower yourself to try things even when you don't know is a really great skill.

Michael, did you want to add on at all?

MICHAEL: Yeah, I was thinking I would love to also just share a little bit of something that I think I've learned from being part of this creative community now for over a year. And it really relates to what Brendan was just talking about. But I do think that creativity, at least for me, really stems from being in an environment where creativity is valued and fostered. And some of the core components of that we've really touched on this idea of being able to share half baked ideas and not having this really refined finished thing and showing up as yourself.

But I think that comes from an environment where we can be vulnerable, where we can show up as ourselves and know that what we're putting in front of people is not something that we're going to be judged on, and we know that within this community people can see beyond or just see the good things in an idea that maybe isn't fully formed yet. And I think that stems from a place of openness with each other, openness with ourselves, and also just a desire to connect and share ideas with each other.

And that's one thing that I would definitely say is a highlight of my experience within this community within the wider LEGO Playful Learning Museum network, but really, within this TIPs group is just friendship and that feeling that I can share what I want to share and it's going to move forwards and not be shut down in any way.

KATHRYN: Yeah, absolutely. I think that piece that you shared there really summed up like pretty much everything we talked about today in terms of what is the environment fostering a community of creativity and how can we be vulnerable and be open. And also that willingness and desire to connect, I think that's huge. If you are working with people and you actively want to learn and grow and connect with one

another, then that's, I think, where you're going to find the most creative ideas and the most like innovative solutions.

And thank you, all. We have reached the end of our podcast. But before we close out for today, I'd love to hear you all share how our listeners can learn more about the work you're doing or even some of the concepts that we've talked about today in terms of activities or light and shadow or anything else that may be relevant for our listeners.

MICHAEL: Yeah. So one resource that The Tinkering Studio has is our Tinkering Studio blog, and I'd highly recommend that if you're interested in any of the explorations we've talked about, feel free to Google them or look them up on the Tinkering Studio blog. We'll also have a blog post focused specifically around some of the stuff that we talked about today. So that might be a fun one to start with.

KATHRYN: That's great. I'll pass it over to Nick, if you want to share about your institution.

NICK: Yes. So there's another member of the TIPs group, Ryan Jenkins, who has an organization called Wonderful Idea Company, and he writes these fantastic blogs about. Some of the tinkering experiences that he's had, one of which was a residency that happened this May. He came for a few days to the Connecticut Science Center and it was just an absolutely amazing experience.

We tested things together and we hung out and learned so much from each other. And he wrote about it all very eloquently. So I encourage everyone to check that out.

KATHRYN: That's awesome. I'll definitely make sure to share a link to Ryan Jenkins' blog as well. And then Brendan, I know we work together, but how might listeners find out more about Boston Children's Museum?

BRENDAN: We obviously have our website and the website has a calendar for museum programs. So if you are ever interested in what's happening on a certain day, you can check that out before you visit. We also have several social media pages, Facebook, and Instagram, et cetera. So if you would like to follow us, that is another way to get the updates on what's happening.

KATHRYN: Well, thank you all so much, and I appreciate you taking time to talk to me today about tips about museum, network, and all those things.

BRENDAN: Thank you so much for having me.

NICK: Thank you.

MICHAEL: Thank you.

KATHRYN: Thanks for listening to today's episode of the Big and Little Podcast, and thanks to PNC Bank for supporting this podcast. If you like this episode, comment, like, or subscribe and stay tuned for more in our creativity series.