



Amanda Schaeffer: [00:00:01] I defined it as community isn't just people. They're people that care and love each other in all kinds of different ways.

Annalies Corbin: [00:00:14] Welcome to Learning Unboxed, a conversation about teaching, learning, and the future of work. This is Annalies Corbin, Chief Goddess of the PAST Foundation and your host. We hear frequently that the global education system is broken. In fact, we spend billions of dollars trying to fix something that's actually not broken at all but rather irrelevant. It's obsolete. A hundred years ago it functioned fine. So, let's talk about how we reimagine, rethink, and redesign our educational system.

Annalies Corbin: [00:00:49] Well, good morning and welcome to Learning Unboxed. This is your host, Annalies Corbin. And I'm very excited, as always. You guys always get to hear me talk about how excited I get about my guests. And the good news is, I guess, that I'm always excited about my guests. I love what I get to do on this program. It's a lot of fun.

Annalies Corbin: [00:01:07] But today, I'm truly excited about my guests in the sense that we have a wonderful teacher and a student joining us today who, last week - actually, it's this fresh - I got to watch over the course of the week as these guys created an amazing, beautiful mural learning lots of STEM skills, lots of art skills, lots of interpersonal skills together.

Annalies Corbin: [00:01:30] And so, I'm very, very pleased to introduce everybody to Amanda Schaeffer, who is a wonderful art teacher out of Hilliard City Schools, which is one of the suburbs of Columbus, Ohio. And she teaches both Art and Ecology, very STEAM-focused, in part of Hilliard City Schools Innovation Learning Campus. And we'll talk a little bit about that as we go along. So, welcome, Amanda.

Amanda Schaeffer: [00:01:57] Thanks for having me.

Annalies Corbin: [00:01:57] And joining Amanda is Neel Mawalkar. Neel is 10. He just finished up the 5th grade at Wickliffe Elementary School, which is a school district also in the burbs of Columbus in Upper Arlington. And next year, Neel is going to be celebrating his journey into middle school. And Neel wants to be a scientist one day when he grows up. So, welcome, Neel.

Neel Mawalkar: [00:02:23] Thank you.

Amanda Schaeffer: [00:02:24] So, very excited to have you guys. And I want to just leap right in, and I want to talk about the learning opportunities that are possible when we sort of step outside of the traditional school environment, and we take advantage of learning opportunities that are in the out-of-school space. And I've had a number of guests over our episodes that have come to us from that informal learning opportunity, but this is the first time we've had the opportunity to really talk about a summer camp program. And so, Neel, I actually want to start with you today. So, tell me a little bit about why you want to do summer programs when you're not in school, instead of just hanging out at home. So, why go to summer camp?

Neel Mawalkar: [00:03:12] I would rather go to summer camp because at home, you really just do nothing. You can just go on the screens or whatever. But then, once you go to summer camp, you can enjoy all the stuff that you do there, and you get to do something, instead of just sitting, and relaxing, and maybe even reading a book. But in summer camps, you get to really do something exciting.

Annalies Corbin: [00:03:37] So, summer camp is exciting. And I'm pretty biased because I get to watch summer camp all summer long. So, Neel and Amanda were teacher and participant in our Art in STEM, which is for us mathematics of muraling program that we've been doing. Oh, I think, this is our fourth or fifth year of doing it now in variety of different forms. And so, Amanda, you came to the PAST Foundation as a guest teacher of the summer for this program and, obviously, lots of background in doing a variety different types of art, including muraling at your own school. But how did you get to be in this program? So, talk to us just a little bit about, sort, of the journey that brought you into the doors of the PAST Foundation.

Amanda Schaeffer: [00:04:20] Well, I would think that my journey began, kind of, as one of those weird professional development opportunities, like, "Hey, there's a class

here. Would you be interested in taking this?" And it was more to learn more about design thinking. So, I took the course, and it was something we were already actively kind of involved, in the trenches, so to speak. And I wanted to kind of get some professional feedback from other teachers, and other administrators, and other people in the industry just to see what they were doing and compare what we were doing in our school just to get ideas or just even to kind of further my knowledge about the subject matter. So, that was kind of how I ended up at the PAST Foundation. And I feel like our relationship has just kind of developed and continued from there.

Annalies Corbin: [00:05:05] Yeah. And oftentimes, that's something that we find that we encounter these great teachers, these great practitioners in both formal and informal in our journey and our work around design thinking and STEM along the way. And oftentimes, we get really fortunate. We're able to sort of pull those folks in the fold and say, "Hey, you have this amazing passion." In your case, your passion for art, your passion for teaching. "And can we tap into that a little bit and share that with others in our community?" in ways that are not tied specifically to our own homes schools.

Annalies Corbin: [00:05:37] And so, just like having students step out of their comfort zone at home or schools and communities that they're very, very familiar with, engaging in these types of summer programs really help us grow and build. So, that's pretty darn exciting.

Annalies Corbin: [00:05:50] So, Amanda, let's sort of dig into the program itself because, oftentimes, with this program, what teachers and other folks in community who are listening the program are really trying to get at is, what are the nuts and bolts of this really great, amazing program that we're talking about? And how could we take pieces of that, not necessarily to replicate it, but take the essence of some of the things that we hear and learn about and bring them back into our community.

Annalies Corbin: [00:06:13] So, let's start with the foundational piece of the way you approached the program because you did Art in STEM at the PAST foundation very different than we've ever done it before because you did it with tile and mural. So, talk a little bit about the choice that you made, whether it'd be a big giant wall mural out of paint, versus one out of tiles, versus one out of something else.

Amanda Schaeffer: [00:06:34] Well, I would say, for me, usually, the journey begins with materials. What do I have on hand? What am I interested in kind of working with? And the idea muraling, especially the mosaic mural, one of my favorite things about it is all the materials are recycled materials that would, otherwise, be heading for the landfill. So, I love this idea of giving old things new purpose and doing so in a beautiful way that brings people together.

Amanda Schaeffer: [00:07:00] So, that was kind of the starting point of the idea for the class. But I think the other connected piece for me, like the way that my thought process kind of went with it was thinking about, "Okay, how can I connect these thinking processes together of using technology, of using design thinking, of using those ways of approaching a problem?" that I think are really what kind of unify art and science together. I mean, it's the same process.

Annalies Corbin: [00:07:28] Right.

Amanda Schaeffer: [00:07:28] So, I really wanted to kind of approach it from that standpoint. And I think that mosaic murals are wonderful because there is a mathematical approach to it, and there is quite a bit of that technology piece that, I don't know if you remember, Neel, but we brought in my iPad, and we were able to kind of tweak and to almost plan things out before we did them. We looked at what it could look like. And I think that that additional piece in the process is really nice. It's really wonderful to be able to use technology in that way. So, that was kind of where we started it in kind of part of the journey.

Annalies Corbin: [00:08:01] So, Neel, when Ms. Amanda, the first day that you met her, and you met all the kids that were in the program, and you guys started talking about this idea of creating a mural, right. So, what's the first thing that you're thinking about? I mean, as you hear Ms. Amanda talking about all this stuff you're going to do, what's going on in your head in that moment?

Neel Mawalkar: [00:08:21] I really thought about, "Wow! Can we really do this?" I was like overwhelmed. I didn't think that we could do this.

Annalies Corbin: [00:08:31] Such confidence. **Neel Mawalkar:** [00:08:33] Yeah, yeah.

Amanda Schaeffer: [00:08:33] But very quickly -- because I was watching, right. So, very quickly, all of you guys just kind of rolled up your sleeves, tucked your head down, and dug in. So, as you started the process -- so, let's talk a little bit about the process of how you, together, came up with what the design of the mural was going to be. How did you guys decide?

Neel Mawalkar: [00:08:59] We started out with drawing a few ideas on a piece of paper. But then, after, we thought that instead of just doing one, we could connect two of them to create one big piece of a mural. And we came up with flowers and, also, a landscape of a city.

Annalies Corbin: [00:09:22] Of our city, of Columbus. **Neel Mawalkar:** [00:09:23] Yeah.

Annalies Corbin: [00:09:23] So, you were creating a mural that was representing an aspect of-

Neel Mawalkar: [00:09:27] Community.

Annalies Corbin: [00:09:28] Community, as in how you define community. How did you guys define it?

Neel Mawalkar: [00:09:34] I defined it as community isn't just people. They're people that care and love each other in all kinds of different ways.

Annalies Corbin: [00:09:44] Well, that's pretty profound. If we could get the rest of the world to get on board with that, we would be in great shape. I love the idea of that. So, Amanda, how do you help the kids? That early design process - white, big, giant, white, empty space is tough. It's hard for seasoned adults. How do you work that space with kids and get them to the point where they have the opportunity to, now, tweak a designed, to pull your iPads out? We're going to circle back around on that in just a minute. But how do you get them to not be afraid of the giant unknown?

Amanda Schaeffer: [00:10:18] Well, I think it's starting with empathy, right. We we really kind of started with why, the why. Why are we making this? And what are we really trying to say? And that's one of my favorite things about education and programs such as this is that kids have an opportunity to really speak their story and speak their voice. And this is a great, positive productive way for kids to have a voice.

Amanda Schaeffer: [00:10:40] So, we kind of started with the empathy piece of what does community really mean. And we began to dive in and kind of look at that. And the brain storming process, I think, is one of my favorites, but it is also one of the scariest. I think it's not about -- I think, sometimes, the hardest part of brainstorming is challenging your own assumptions of saying, "Okay, I'm thinking this, but is that true? And is that stopping me from seeing the whole picture or the bigger picture?"

Amanda Schaeffer: [00:11:05] So, we try to do -- I try to do multiple approaches where it's really quick sketches or really quick prototypes, so that they're not so emotionally invested to be able to change the idea. I think that flexibility in thinking is really key, especially in the early stages of planning. So, I don't know if you remember, Neel, but we went through, at least, five or six different stages of different brainstorming activities.

Amanda Schaeffer: [00:11:28] So, one, which is kind defining community. One part was starting with your own personal drawing because I really like kids to have that time to reflect themselves before they begin to collaborate as a group, so that all voices are heard. And then, we began to put them up and talk about what these sketches are, and what's present, and what's not present. And then, we began to kind of pull those ideas together. And then, we voted as a team to say, "Okay, we really like this idea, we like this idea, we like these aspects of these drawings. How can we pull all these together?" until we came up with the final design that we all voted. And even that final design went through multiple stages of revision before we, finally, got to the final image that we used on the mural.

Annalies Corbin: [00:12:10] Right. And so, Neel, when you did your individual drawing as you guys got started, so tell me what was your drawing about. Before you got to the group stuff, do you remember what was on your drawing?

Neel Mawalkar: [00:12:22] Yes, I do. I remember that it was a big flower, and it had a bunch of words just like community. So, it was like kind, putting someone else in your shoes. They had a bunch of things connecting to community.

Annalies Corbin: [00:12:35] Okay. And so, then, as you -- and there are, just for our listeners -- and we will have some photos in the resources on the web page with the program, including some photos

of the final version. So, you will see that the flowers that Neel is talking about and the words, they actually make it into the final mural. So, that's pretty darn cool.

Annalies Corbin: [00:13:00] So, as you guys were working on that then, and you started to tweak, and make decisions, tell me a little bit about the conversation that you and the other kids had as it related to, "We're going to choose the flower. We're going to choose this word. We're going to choose this piece." And how did you make the decision to let some pieces kind of go?

Annalies Corbin: [00:13:19] Because, at the end of the day, when we're in invested, whether it'd be in art, or in engineering, our research as an engineer, or a biologist, or whatever, right, we get really invested in the thing that we did. And, sometimes, it's hard to let those things go to be part of a bigger collective. So, tell me what that felt like for you and the rest of the kiddos as you guys are making decisions around what to include and what not to include.

Neel Mawalkar: [00:13:46] I felt kind of like, "Oh, why are we getting rid of this?" at the start. But once we actually got rid of it, and we actually started to make it, it started to make more sense.

Annalies Corbin: [00:13:56] What kind of pieces did you leave out?

Neel Mawalkar: [00:13:59] We leaved out pieces that we know that we couldn't have

done because it didn't fit, or it didn't look good, or-

Annalies Corbin: [00:14:06] Or it was going to be hard.

Neel Mawalkar: [00:14:07] Yeah.

Annalies Corbin: [00:14:07] Yeah, because you only had a week. **Neel Mawalkar:** [00:14:09] Yes.

Annalies Corbin: [00:14:10] Which is amazing how far you guys got in a week. Just truly amazing. So, Neel, before we move on, so we also heard Amanda talking about bringing in an iPad, and having you guys really sort of interface with the technology and the physicality of the art in the mural, the mosaic that you're working on. So, how did you guys use that piece of technology to help you get to the final form before you actually got the tiles? So, what did you do with that?

Neel Mawalkar: [00:14:40] Oh, we thought about what we could do and what we couldn't do. We looked at it and thought of what we could do and how we can make this. And we thought of even some better ideas sometimes.

Annalies Corbin: [00:14:55] Okay. So, Amanda how did you integrate the technology? Because lots of times, teachers struggle with that. It's something that I hear all the time, which is the reason I'm asking the question. So, how did you help the kids utilize the technology to get to a final product in this case that was not technology-based?

Amanda Schaeffer: [00:15:10] Right. And I feel so fortunate that with Hilliard City Schools, every kid has their own iPad. So, it is a one-to-one school district. And it's interesting because technology isn't so much the centerpiece. It's just another tool that we use. We don't really consider it this whole extra thing. So, I wasn't -- I mean, for me, it just felt very natural.

Amanda Schaeffer: [00:15:30] So, a lot of times, I'll take pictures of wherever we are, and then you can go in and draw on the iPad while the kids are watching like, "Oh, here's some modifications we could make. What do you think about this? or "What if we did this and this, so we could splice the two things together?" And you could see in a visual way the, sort of, abstract concept. And I think it helps kids have more of a concrete understanding of what they're doing and where we're going. So, we try to use it in that way more for like, I guess, you could say the revision side of things.

Annalies Corbin: [00:15:59] Yeah, yeah, yeah. A tool. **Amanda Schaeffer:** [00:16:01] Yeah.

Annalies Corbin: [00:16:02] And so, was that helpful to you to be able to utilize that tool that way and sort of see how the revisions began to sort of track out new?

Neel Mawalkar: [00:16:10] Oh, yes, very much, yes.

Annalies Corbin: [00:16:11] Yeah. And so, is that a process that you would feel comfortable yourself using down the future? Because in UA, you are also pretty enmeshed in technology, and not all communities or not all schools across country around the world have that access and that one-to-one sense. And so, you're very fortunate in that space. But do you think that you could do it yourself.

Neel Mawalkar: [00:16:31] I think I could because it's not like we're actually doing it, but we're like thinking about it and and drawing it on whatever we want to. And it's not like we actually are making it.

Amanda Schaeffer: [00:16:43] Yeah, yeah. I have this feeling that you could do that too. Yeah. I'm betting on that one. But I would also say, for all the teachers who don't have access to technology like that that a project of this scope and scale is still possible without the technology piece. I think it's just the willingness to try it.

Annalies Corbin: [00:17:01] No, absolutely. And I completely agree with that. It's one of the things that I've always loved actually about this particular program. And at PAST Innovation Lab, for our listeners, we do a ton - truly done - of different STEM programs in any given year. This summer alone, I think we have 41 different STEM camps that we're running. So, it's a lot of stuff across a broad range of perspectives. And one of the things I do love about the Art in STEM, one in particular, is the fact that it's so truly accessible. And teachers, over the years, have done a variety of different ways.

Annalies Corbin: [00:17:38] So, let's talk a little bit, then, about sort of the next iterations of the program because as you guys landed on that design, and really digging in, and the other thing that I love that you did with this is you spent a lot of time with the kiddos entrenched inside the design cycle. And as I would pass by a walk through, I would hear you guys frequently talking about the different sort of stages and using that. And so, you feel pretty comfortable in the design cycle, Neel?

Neel Mawalkar: [00:18:02] Yes, I do. **Annalies Corbin:** [00:18:04] Yeah.

Neel Mawalkar: [00:18:04] It works pretty well.

Annalies Corbin: [00:18:05] It does. It's amazing, right? It's only been around for a little while. No, it's been around forever, right? And we keep coming back to it. We rename it. We rediscover it, right. But the reality of it is it's been with us for a really long time. So, that's pretty awesome.

Annalies Corbin: [00:18:18] So, Amanda, so what happens next with the program and the way that you, then, start to work with the kiddos. I want to talk a little bit about how you integrate the mathematics of the program because that's one of the things that's really important to us is that this program is infused with the mathematics whether the kids get it or not. So, what does that look like last week?

Amanda Schaeffer: [00:18:37] Well, I think just even on a very basic, fundamental way, and I think that's kind of the beauty of art and stuff is that you don't realize that that's what it is while you're doing it. It's kind of the Trojan horse of education. I always say that about art. I love it. So, I think just even the idea of using ratios and trying to puzzle things together, shapes, and figuring out spatial relationships, and doing so in a way that is intuitive to where I think it's less about sort of numeric

values, and more about seeing it happen and come together, and then understanding the mathematics behind it. I think it's a really cool approach to learning math and kind of, I mean, really, the integrative nature of knowledge.

Annalies Corbin: [00:19:24] Right, right. So, Neel, did you realize you were doing so much math?

Neel Mawalkar: [00:19:28] No, I thought that we're just making art. **Annalies Corbin:** [00:19:31] Well, you were using math a lot, weren't you? **Neel Mawalkar:** [00:19:34] Yes.

Annalies Corbin: [00:19:34] Yeah.

Neel Mawalkar: [00:19:34] In my brain, I think I was.

Annalies Corbin: [00:19:35] Oh, okay. Well, I think your brain was probably right. So, can you tell us a little bit about the places you're certain you were using math in that? Can you give me a couple of examples?

Neel Mawalkar: [00:19:45] Well, we used a lot of shapes and geometry to make this big mural. We also used a lot of just thinking in mathematical ways, like how we could do this. Yeah, that's all I know.

Annalies Corbin: [00:20:03] Yeah. A few times when I walked by, I sort of saw the things that you guys were doing. One of the things that I saw repeatedly, which I thought was really, really cool, it comes back to that revision piece, but I saw you guys talking about it. And you're talking about math, even though, again, you had no idea, really, that's what you were doing because what I saw you guys doing was tweaking the design a little bit, and then recognizing that it was going to move and shift all the shapes. And there were conversations I saw you guys having about how to do that and how -- the decision making, right? Am I correct? Like when you guys were moving the lining and stuff like that, that was part of the conversation. You guys were having. Yeah?

Neel Mawalkar: [00:20:46] Yes.

Annalies Corbin: [00:20:46] So, how did you make those decisions? Was it just because we like this, or was it based on fit, or was it something else?

Neel Mawalkar: [00:20:56] It was kind of based on fit because we couldn't really -- it wouldn't look good if it hadn't had -- if we still didn't get rid of it. I think we just all agreed on that, kind of. We didn't really vote, but we already kind of just knew, and just like kind of like felt like we already knew all of that. Yeah.

Annalies Corbin: [00:21:18] Yeah. And I think that as you moved through, Amanda, so how did you help the kids sort of struggle through that piece of the process?

Amanda Schaeffer: [00:21:26] Well, I think it's back to that intuition, right? **Annalies Corbin:** [00:21:28] Right.

Amanda Schaeffer: [00:21:28] It's very intuitive. When you see something -- and I think this is the same for science and math. I mean, you see something, and you have an idea of what you think is going to work. And then, you begin to see that maybe it's not going to work, and how to tweak that, and go back to the idea, and revise. I think that's a process that, like, a lot of kids are maybe less familiar with.

Amanda Schaeffer: [00:21:50] And luckily, I feel that we had a really positive relationship going into building it. And it's like anything. I think it always comes back to the relationships that they trusted me

to be able to tell them from my experience of working on previous murals like, "This is not going to work," or "This would work better than that. What do you think?"

Amanda Schaeffer: [00:22:10] So, it was -- again, I think it was kind of a multiple thing. Like it's that intuition on the kids' part that they could tell too like, "Oh, this particular ideas maybe not as functional as we thought it was going to be," but that they also trusted me to lead them down the journey of creating this thing when I said, "Hey, this is probably not the best idea. What about if we think about this or this? What do you guys think?"

Annalies Corbin: [00:22:30] And I also think that one of the things -- and this is a piece that I think is really key, and we see it all the time in informal education. And I know that we are collectively, as a community of practitioners in education, trying to figure out how to take some of the opportunity and experiences that we have in informal and make them part of the everyday, which we see happening in innovation labs, innovation spaces like where you teach in, in Hilliard, in schools like Wickliffe that are project-based. But that's not the case everywhere.

Annalies Corbin: [00:23:01] And one of those key components is the fact -- back to -- you used the word comfortable over and over again. And just to be clear for our listeners, the kids, you guys didn't all know each other before you came to camp, right?

Neel Mawalkar: [00:23:13] Yeah, no idea.

Annalies Corbin: [00:23:13] Did you know another kid that was there at all?

Neel Mawalkar: [00:23:17] No, I didn't know anyone.

Annalies Corbin: [00:23:17] No. And so, this was a diverse group of kids coming from all kinds of school experiences, and you had to build relationship with them. But part of what I think made the relationship so fast and so powerful was that the kids got that Ms. Amanda loved what she was doing. Yeah? That she's passionate about that.

Neel Mawalkar: [00:23:36] Yes, very much.

Annalies Corbin: [00:23:37] Yeah. You never doubted that, did you? **Neel Mawalkar:** [00:23:39] Mm-hmm (affirmative).

Annalies Corbin: [00:23:40] And that translates into a pretty remarkable experience. And so, Amanda, talk a little bit about that. Because in art, because you're so deep in the project experience, oftentimes, I think, in many ways, I'll see traditional classroom teachers, a Math teacher, an English teacher who goes, "It's not that way for us because we can't do the kind of stuff." And that's just not the case. So, how do you translate the passion for the thing that you're doing into the teaching?

Amanda Schaeffer: [00:24:08] Well, I think kids see that.

Annalies Corbin: [00:24:10] Yeah.

Amanda Schaeffer: [00:24:11] People see that. People know when you're authentic and when you're not. And if you really feel passionate about something, and you love what you do, I think that transcends so many limitations and borders that we impose upon ourselves. And I would say, again, back to props for art education, one of the beauty is that it is so informal that kids do feel comfortable because they're not so afraid. They're not afraid to try things. They're not afraid to test out an idea. They're not so afraid that they're bound by. And yes, we have grades, and we have rubrics, and we

have standards. It's the same as all the other content subject areas, but I think it's that informality that allows that true creative and innovative thinking to happen.

Annalies Corbin: [00:24:49] And so, as those components then get translated into the other day, every day -- so, Neel, as you go off to middle school, which is a huge journey, by the way, props and congrats for that, so what are the pieces that you're going to take away from this experience that you think that you will be able to use in your everyday.

Neel Mawalkar: [00:25:14] I think, I can take away from this as community isn't just a bunch of people. It's people that care, and love, and very much love about each other no matter what.

Annalies Corbin: [00:25:26] And what about some of the process pieces in terms of the things that you learned separate from the experience?

Neel Mawalkar: [00:25:33] I think that I could use the steps of making this art, and maybe even using it in science or even in some kinds of different ways, all kinds of different ways.

Annalies Corbin: [00:25:45] Yeah. So, let's talk about that just a little bit. Let's talk about the intersection between art and science or art and STEM. Lots of times, we We have conversations around it should be STEAM instead of STEM. And I actually keep an entire list. You'll love this, Neel. So, I travel all over the world talking about STEM education. And lots of times, people get so bogged down in the letters that I have seen some crazy ones, right.

Annalies Corbin: [00:26:12] And my perspective is always STEM is just the foundational piece. And then, everything else that we put on is the thing that makes it rich and wonderful, right. But STEM by itself is, quite frankly, kind of boring in many ways, right. It's awesome. We need it, but it's all the stuff we stick on it, actually, that makes it fun and robust. So, I mean I've seen stuff like STEM with an H, so that we can add health, STEAM, so we can add art. I've seen STEM squared, STEM cube, you

name it. I mean, crazy, crazy ones. SQL, that was one of my favorites because somebody told me we need to add quantum physics into the baseline. And I thought, Well, yeah, that would be really cool." But let's not do that. Let's just stick with what we got and add to it. So, tell me a little bit about, Neel, your passion for science. So, what kind of science do you like?

Neel Mawalkar: [00:27:04] I love chemistry.

Annalies Corbin: [00:27:06] No way. Chemistry?

Neel Mawalkar: [00:27:06] Yes.

Annalies Corbin: [00:27:08] Why do you like chemistry?

Neel Mawalkar: [00:27:10] Because it's so interesting to see all the little things about it like the periodic table. I love that because it has so many different elements, and I love it.

Annalies Corbin: [00:27:19] It's kind of a piece of art too, isn't it? **Neel Mawalkar:** [00:27:20] Yeah.

Annalies Corbin: [00:27:21] Yeah. It's cool to look at. So, do you know how many times you bump up against chemistry last week in your Art in STEM class? Would you be surprised to hear that you rubbed elbows quite frequently with chemistry?

Neel Mawalkar: [00:27:35] I would be.

Annalies Corbin: [00:27:36] You would. So, Ms. Amanda, can you share with you a little bit about the places where chemistry came to play?

Amanda Schaeffer: [00:27:42] Oh, well, chemistry is such a fundamental part of art making just from the piece that we've used to glue down the pieces, to the mixture of the grout that I put together, to, is the glass going to hold up in an environment like rain or sun, or what do the elements do to these particular pieces of material? Like how do those things affect it? So, you have to have a base of understanding of chemistry to really kind of know how materials are going to work.

Annalies Corbin: [00:28:12] So, that's pretty darn awesome, right, that art is in everything. Come back all full circle to that.

Amanda Schaeffer: [00:28:17] It is.

Annalies Corbin: [00:28:18] So, pretty cool. So, I want us to spend a little bit of time before we finish up today talking about how to make modifications to a program like this, to make it your own in your own community. So, Amanda, I want to start with you. So, you've been involved in lots of different community art projects, as I understand it, over a variety of different years and different types of arts inside the school. And so, for teachers or community folks who are saying, "Hey, we would like to take on a project like this," because it's very, very doable. I want to make sure that everybody understands that what we're talking about in the program that you guys did, it is infinitely doable. Without a lot of resources, without a tremendous amount of external inputs, you could do this. So, as you make modifications, and folks are thinking about this, what are some of the things that you think they should think about?

Amanda Schaeffer: [00:29:09] I would urge everybody to start with the kids. Yeah, start with the kids. Let them begin to develop the idea. That's really where I try to start. Again, I'll have an idea of what materials I want to use and how I want to use them, but, really, the idea and the concept, I always really like the kids to have the voice and what direction that goes. So, I always kind of pitch that idea to them, like "What do you guys think?" And so, I would encourage everybody to start there, to start with what do the people, and the clients, or the kids, or whatever it is that you're doing, what do they want to do? What is their voice? What is their story that needs to be heard? And just tapping into that, whatever the project is, whatever the medium is.

Annalies Corbin: [00:29:50] Right. So, Neel, do you think that if a Ms. Amanda had said, "Hey, instead of doing a mosaic, we're going to do a sculpture," do you think that it would have worked in a similar fashion? Could you have done a sculpture?

Neel Mawalkar: [00:30:04] I think so because she's such a great teacher in art. **Amanda Schaeffer:** [00:30:08] Thanks, Neel.

Neel Mawalkar: [00:30:08] And we put our hearts into our work. So, I think it would have worked out pretty well.

Annalies Corbin: [00:30:16] Yeah. ,Yeah I think so too, actually. So, maybe we'll try that next time. So, Neel, when if you think about a teacher in another community saying, "Hey. that's a pretty cool program," what couple of things do you think somebody should know as they're getting ready to design a program for kids of their own.

Neel Mawalkar: [00:30:37] Again, I think that they should put their hearts into their work because if they don't, then it's not going to look so good.

Annalies Corbin: [00:30:43] Yeah.

Neel Mawalkar: [00:30:44] And you got to put yourself into your work. You also got to -- maybe, even if it's -- maybe if there's something that's trash, it could be another man's treasure.

Annalies Corbin: [00:30:55] That's true. I love that. Trash could be another man's treasure. That's pretty good. So, do you think, Neel, that if you were to do this program again, what are a couple of things that you might think about doing differently?

Neel Mawalkar: [00:31:09] Maybe it could have been a whole different idea. Maybe it could be not community. Maybe it could be something else about. It could also be maybe -- but, yeah, I think it could way different than this right now.

Annalies Corbin: [00:31:25] So, a different topic.

Neel Mawalkar: [00:31:26] Yes.

Annalies Corbin: [00:31:27] Different materials.

Neel Mawalkar: [00:31:28] Mm-hmm (affirmative).

Annalies Corbin: [00:31:29] Do you think the location matters? Can you do this anywhere?

Neel Mawalkar: [00:31:31] I think so. Maybe not anywhere, but, I think, in a lot of places because it's kind of just like a community art. And I think a lot of places could have this kind of art.

Annalies Corbin: [00:31:42] Yeah, I think so too. So, Amanda, I always like to end the program was sort of the last job. And I hear, oftentimes, from teachers that all the reasons why they can't do something. And sometimes, those are pretty legitimate reasons, but I think that we can always design around a lot of constraints. So, is there anything that you can think of that would prohibit somebody from taking on this type of program or project inside of their community, or should they just run with it?

Amanda Schaeffer: [00:32:11] Well, I think the thing that holds a lot of people back - and this is students, and adults, and teachers, and admin - is the fear of failure. And there's going to be times you're going to fail, and it's going to look like a hot mess. There are multiple times that I was like, "Oh." But you have to have courage and know that, eventually, it's going to work itself out. And just, yeah. And if you do fail, that that's part of the process. That's part of the learning process. That's part of the growing process.

Annalies Corbin: [00:32:39] Absolutely. And so, Neel, as as you think about that courage that Ms. Amanda is talking about here, I went back in that warehouse where these kiddos were doing that work, and I saw a lot of failure on the floor. I saw paste on the floor. I saw broken pieces the glasses on the floor. You kind of seemed a bit fearless. I never once heard or saw anybody that was like, "Oh my gosh, that didn't work. We can't do this."

Neel Mawalkar: [00:33:07] Yeah.

Annalies Corbin: [00:33:09] I mean, do you think that was just because you were so in the moment, and you were able to pull together, and just keep at it, or because you learn something from every time a piece ended up on the floor?

Neel Mawalkar: [00:33:22] I think that it was because we were working so hard, and we were at it, and we already got into it. So, if we stopped right there, and we're saying, "Man, this is not going to work," then there is no point of making it in the first place and doing all this work to get to that point.

Annalies Corbin: [00:33:39] So, it's pretty awesome. **Neel Mawalkar:** [00:33:40] Yes.

Annalies Corbin: [00:33:41] And for our listeners, again, we're going to post some photos and whatnot because it really was a fun, fun program to watch. And I would go back every single day to see how much progress had been made. And it's a beautiful, beautiful piece of art. But the thing for me that made it most beautiful is that it truly, back to to Neel's point, it came from the heart. I could see those kids investing in it.

Annalies Corbin: [00:34:05] So, on behalf of PAST Foundation, I want to tell you guys thank you very much for spending the week with us. And thank you for being my guests today. I truly appreciate it. It's been a lot of fun.

Amanda Schaeffer: [00:34:16] Thanks so much for having us.

Annalies Corbin: [00:34:17] Thank you for joining us for Learning Unboxed, a conversation about teaching, learning, and the future of work. I want to thank my guests and encourage you all to be part of the conversation. Meet me on social media, @annaliescorbin. And join me next time as we stand up, step back. and lean in to reimagine education.