



Susan: You're listening to the Creatively Connected Classroom podcast, episode number 35.

Speaker 2: Welcome to the Creatively Connected podcast from EducationCloset, connecting teachers and ideas one glue stick at a time. Here's your host, and K-12 Art Chat founders, Matt and Laura Grundler.

Matt Grundler: Hey, everybody. This is Matt and Laura. And welcome to another episode of the Creatively Connected Classroom. And we have yet another amazing host.

Laura Grundler: You say that every single week.

Matt Grundler: I do. I don't know how not to.

Manuel Herrera: I'm not special?

Matt Grundler: How not to introduce our host, because they are, they're all amazing in their own right.

Laura Grundler: Well they certainly inspire us and hopefully inspire the community. And with that, we have the inspiration of Manuel Herrera today. For us it's really exciting because he talks a lot about thinking and-

Matt Grundler: Drawing.

Laura Grundler: Visual thinking and drawing and pulling it in all areas of the classroom. So welcome, Manuel. We're so excited to have you.

Manuel Herrera: Yeah, thank you guys. I'm super excited to do this. This is fun. I like just having casual conversation about all the things that I'm nerdy about that other people want to hear.

Laura Grundler: Yeah.

Manuel Herrera: It's kind of cool.

Matt Grundler: Yeah, that's kind of what we are.

Manuel Herrera: So yeah, thanks for having me.



Laura Grundler: Will you just start by... This is always fun for us because in Twitter world we don't actually get to know people. So tell us a little bit about your background, what you've taught, what led you to be a teacher and then all the creativity you pull into all of it.

Manuel Herrera: Sure. Man, this is a big story but I'll do my best to kind of make it small. Originally, when I went to school and I went to college, I originally wanted to be in education because I wanted to coach track and cross country. So that's kind of where I started because I was a big runner. And ended up not going that route. I think people scared me, the pay and this and that. And so I was actually a business major. So I went to school in Texas as a business management major. Thought I was going to go into hospitality. Wow, this is deep. I haven't talked about this. Yeah, I thought I was going to go into hospitality. I wanted to do restaurants, hotels. And just realized that lifestyle... I'd been in hospitality since I was in college, waiting tables, working in golf resorts. But realized I can't do this, I can't continue to do this.

Manuel Herrera: And so I had a couple of friends who were in education, they said, "Well, yeah, maybe you should come back and try to get back into education in some way." And so I went back to school, got my certification, teacher's certification in special ed. Because I didn't really know what I wanted to do, where in education... I knew at some point I wanted to coach. That was my kind of big thing. So I got into special ed, taught special ed for seven years. And then I ended up teaching... I did really well with my kids. I had middle school. So I taught middle school special ed. I love middle school. I know middle school's where the crazies are, but-

Laura Grundler: Actually, we're both middle school people too.

Manuel Herrera: Okay. It's awesome. Both teachers and kids are just completely different.

Laura Grundler: Yes.

Matt Grundler: Oh yeah.

Manuel Herrera: So I did that, I taught, and then I did it really well as far as the special ed classes I had. And I followed my kids around, we called it inclusion, so I was in Texas, in Austin doing that. And ended up teaching a... We had the TAKS test, that was our state test.

Laura Grundler: Oh, I remember.

Matt Grundler: When it was TAKS, yes.



- Laura Grundler: Yes, when it was TAKS.
- Matt Grundler: Now it's STAAR.
- Manuel Herrera: Now it's STAAR, yeah. So I taught a prep class, I taught a TAKS prep class. And it was just interesting.
- Laura Grundler: Nice way to put that.
- Manuel Herrera: It's like all the kids who don't do well behavior-wise, test-wise, give them to Herrera, he'll teach them.
- Laura Grundler: Well, that's the thought. Yeah. I don't know if that's always a best practice. But I digress.
- Matt Grundler: Anyway, sorry, go ahead.
- Manuel Herrera: No, it's totally fine. And so I thought I wanted to go into administration. I taught for a while, I was like, "I don't know if I want to continue in the classroom. I want to help lead other people." Because I was a department chair for special ed, had another leadership role, and the principal talked me into going into administration. So, followed her advice, got into administration. Did my one-year internship and said, "I don't ever want to do this."
- Matt Grundler: At least you learned early on.
- Manuel Herrera: Yeah, that was it. I was like, "I'm done."
- Laura Grundler: It took me seven years to figure out I didn't want to be a principal.
- Manuel Herrera: You were an administrator for seven years?
- Laura Grundler: Yeah.
- Manuel Herrera: Yeah, I was like, "No, I don't want to do this." And luckily, I had a tech integrator on my campus, she's like, "I know you don't want to go into administration. I think you should look into ed tech." And so this was probably, I don't know, maybe 2010, 2009, 2010. So it was still... blogging was still kind of a thing. Blogger was the big... That was really the one thing I knew, and then smart boards. And that was it. And I was like, "Yeah, I think I can do that." I did it as it was in my classes, so she was like, "You would just train teachers to work on Promethean boards." And so I did that for a year, and I'm like, "Oh my gosh, I want to be in ed tech. I don't even know what this is, but I want to do this. I want to play with



computers, I want to work with kids." I went to TCA for my first time, and I'm like, "Yeah, I want in this world. Whatever this world is, I want to be in it."

- Manuel Herrera: And so that's where I got my start in ed tech. And ended up becoming... moved to St. Louis, ended up becoming a technology coordinator, kind of been this role I guess nine years I've been in this role. So in some form of tech integrator, everybody calls them all kinds of different names. And now my name is super fancy, I'm an innovation coordinator. Yeah, I don't even know what it means. But that's what I do.
- Matt Grundler: We have a good friend who's in Austin who I think that's part of his title as well.
- Laura Grundler: I think you know him, Carl Hooker.
- Matt Grundler: Carl Hooker?
- Manuel Herrera: Mm-hmm (affirmative).
- Laura Grundler: Yeah.
- Matt Grundler: Yeah.
- Laura Grundler: Similar title.
- Matt Grundler: Innovation something or other.
- Laura Grundler: Yeah.
- Manuel Herrera: So very similar kind of to what Carl does. And Bree Hodges is there now with him, a good friend of ours. So yeah, I started doing that. And it was funny, at some point, I don't know if we'll get into this, but I guess five years ago, I was working with high school kids. So I'd moved on, I was in St. Louis doing this role, and I started working with high school kids. And I had this design space that we created, or Rebecca [Herr 00:06:31], I don't know if you guys know Rebecca [Herr 00:06:33], incredible designer/art teacher, does a lot of work with learning spaces. And she helped us redesign this classroom at our high school, and we made it a design space. Because I had this room to use however I wanted, the district had given me some money to kind of create it. And we kind of sat and thought about what's the best way to use the space for kids and high school. And we had just went one to one. So it turned into a design space, and it was kind of a big process behind that.



Manuel Herrera: And I had all these amazing tools. I had 3D printers, I had laser cutters, laser etchers, software, recording equipment. And kids would come to me and say like, "Hey, we want to do these things for our classes." But they would just come, and they didn't know what they were doing, they just knew that all the cool stuff was in there. And so it was like one day sitting at a table with a group of kids about this project they wanted to 3D print, and they really didn't know what they were wanting. I tell the story that they come in and they kind of mime what they want. They're like, "We want it to look like this." And so I picked up a marker and just started to draw what I thought they were coming up with. And kind of after some back and forth and some, "Yeah," and this, "Yeah, that looks great," and then eventually another student picked up a marker and started contributing to the drawing. And it kind of just hit me, like, "Oh my gosh, we don't do this with kids." We don't help kids plan things. We show them the tools and say, "Look, here's the television that says it's going to be awesome."

Manuel Herrera: And so that's when kind of drawing started to become a thing again for me. As a kid, as a child, so even further back, that's what I did. I would doodle and draw. I've drawn my entire life and have always done it in different situations. But in school I was definitely the one who either drew about what the teacher was saying or just kind of mindlessly drew to pay attention. And even as an adult, I would do it, and still became like, "Oh, there's Manuel drawing again," or, "There's Manuel just doodling." And it was still this stigma behind it.

Manuel Herrera: And right about that time that I started to kind of realize this with kids and working with them, sketch noting started to kind of perk up. And all of a sudden a lot of attention was drawn to drawing again. And so that was this catalyst, like, "I want to explore this a little further. I want to try this with kids a little more." And the next couple of groups who were coming in to 3D print something, we kind of went through the same process, but I started off with a drawing and walked them through it. So eventually, after the next project, kids started coming to me with drawings. I'm like, "Oh yeah, this is awesome." So now, we're seeing what they're thinking. That's kind of where I try to use drawing. I try to use it to show original ideas, what's in your head, plan out things, organize, communicate with team members. Because I work with a lot of high school kids who work with a lot of groups. And so they weren't and they weren't communicating. They were just opening Google Slides and mess with templates. And so I'm like, "That's not where you need to start. You need to start somewhere else."



- Manuel Herrera: That's a pretty quick version of how I am where I am, and it's just gained momentum the more I've done it, the more I've shown people, the more I've asked and looked at what other people are doing. I'm more than positive that's how we somehow connected was through the art we have out and the drawings and the thinking that we show.
- Laura Grundler: I actually think, if I remember right, one of the things you and I initially connected on was pens. I think you were posting pens on Instagram that you like. And I was like, "Dude, I like those pens too."
- Manuel Herrera: Oh, like drawing pens.
- Laura Grundler: Drawing pens, actual pens, like micron pens.
- Laura Grundler: I know, right? We both have them in our hands right now.
- Manuel Herrera: That might have been it.
- Laura Grundler: I think that that was the first time, I was like, "Dude, this guy is not an art... He's not an art teacher," which we love. I want to make that really clear. Matt and I started K12ArtChat, but what we really intend is that art and creativity infuses all classroom spaces. And that it's not limited to this title of artist.
- Matt Grundler: Or a stigma that-
- Laura Grundler: Or a stigma that only artists can be-
- Matt Grundler: Creative, or-
- Laura Grundler: Or that you have to have talent. That's what we really want. We want people to get past that fear of drawing. And so I just thought it was funny because I was just thinking about when you said that how we met. And I think it was pens on Instagram.
- Manuel Herrera: And I'm lost because I was thinking pins, because I've come to that point in my life where I'm actually making little pins that you put, little buttons I guess. I was like, "Maybe I," but yeah.
- Laura Grundler: P-E-N-S.
- Manuel Herrera: There you go. There you go. But it's been nice to see this kind of perk up and all of a sudden it doesn't have as much of a stigma as it did before. It still does. There are still teachers that are very-



- Laura Grundler: Anti.
- Manuel Herrera: Anti, and kids that are like that. So life mission to change that.
- Matt Grundler: We love to hear that.
- Laura Grundler: That's something we face all the time as art teachers, because it's like, "Oh, well..."
- Matt Grundler: "I could never do that."
- Laura Grundler: "I could never do that," or, "You're so talented."
- Matt Grundler: "You're so creative."
- Laura Grundler: I'll be hanging art wherever because I hang art all the time. And just the other day, last Tuesday, I was hanging up a piece of artwork, and it was an elementary show, and this woman walks by, and I'm hanging elementary art, and she goes, "Oh, I could never do that. Those kids are so talented." And I'm like, "You know, you just need a teacher." It's about opening your heart to being willing to do it, and then having a great teacher, that's a lot of it. But I did also think during our chat... It was funny, you were talking about sketch noting in one of the questions, and I responded with this... It has been funny to me to see the rise of sketch noting, because as a little kid, as a dyslexic little kid, my mom was like, "Nope, just draw your notes. Just do what works for you. If you need to sketch it out so that you can remember it, then that's what you do. If you need to mind map so you can figure it out, that's what you do because you need the visuals."
- Laura Grundler: So I've done this thing that is now called sketch noting, but to me it was just always the way I took notes, my whole life, as long as I can remember. And I remember that stigma being in grad school, getting my degree in leadership, and having a professor, a former superintendent, come tap me on the shoulder, "What are you doing?" And I'm taking notes. And I Tweeted that out, and that got a huge response. And I think maybe from our community it would get a different response than a traditional education community because we are the people that have been drawing our whole lives. But I think I just want to say thank you for continuing to promote it outside of just art because it's just such a skill that helps all learners. We're all different learners, and for some of us that's just the way we internalize our thinking.



- Manuel Herrera: It is. And when you said mind map, that's another piece that I'm trying to help people understand is that even when we do draw, it's not always... putting your pencil to paper or pen to paper and creating something that helps you memorize, that's still drawing. That is a form of drawing.
- Laura Grundler: Yes. It's a line.
- Manuel Herrera: It's a line. Some people think, "I have to draw something like a scene or an event or something, and I can't draw people, and I can't draw the houses." They get caught up in that. I'm like, "No, you can still draw a mind map, and that is still drawing."
- Matt Grundler: Drawing.
- Laura Grundler: Yes.
- Manuel Herrera: What else do you call that? I can't just call it... So, I try to use some of that as well to kind of ease some people into drawing. Kind of like, "You kind of maybe were already doing some of this, I just want you to rethink it and know that it is a valuable tool, it's not an elementary tool." And that's also what I find is that we will teach elementary kids these kind of techniques or these kind of strategies, and it will include pictures and it will include just lines and circles, but as students get older, we kind of don't do it as much or don't value it as much maybe. So yeah, it's nice to see there are ways that I can get into other content areas with some real stuff that teachers can really use.
- Matt Grundler: And I think going back to what Laura was saying about kids being able to express their thoughts and ideas, you also run into the challenge of language barriers. When you have kids that are working with other kids that maybe don't speak the language or don't speak it that well, then they can show it visually in their journal or wherever their idea is. I think that helps tremendously, because as a kid's trying to explain something in a language that the other kid has no idea what they're even saying, to be able to draw it and just kind of give a little doodle, then all of a sudden they're like, "Oh, that idea. Oh, okay."
- Laura Grundler: And I've been fortunate enough in our district, I'm a big... and Matt is too, we're big proponents of journals, and that journals are visual journals, they're not just text, but a blend of text and drawing where you keep your ideas and your thoughts and then you go back to them and pull those thoughts out when you need them. And one of the things that has been really cool to see in our district is that I've worked with our ESL, L- whatever, lots of Ls, language or newcomer population, and our coordinator that works with newcomers. And we've done a lot of work



about journaling in a variety of ways, for showing what you know, but also for that process of coming into the country and being new and having a safe place to kind of put down your ideas and your thoughts and figure out how to adjust to a new world. So I think that there's so many uses for visual note taking, and that we need to explore that as educators.

Manuel Herrera: Right. There is. And I'm excited for this year because I'm presenting three or four times and it's all on drawing to show thinking, but it's with different people. And so I'm super excited because the first person I present with is Rebecca. And her and I are really kind of two people who started to put this into some kind of presentation and some kind of way of communicating this to teachers. And so she comes from a design perspective and an art teacher perspective and how we can use it in that sense. And that's kind of how I started on this journey of how drawing, you can pull ideas from kids when they design. And then I also have a presentation with Kim Zajack, who is a speech and language pathologist from Boston, the Boston area. And I want to get her perspective on how she uses it with her kids as she works with them through language, any language practices they have or methods or working with. Because it's all about communicating, how do you communicate. It's very much like you said, you have English language learners or somebody who comes from another country, it's not their intellect, it's their being able to communicate in a new language. So I'm interested to see how our presentation turns out.

Manuel Herrera: And then there's a panel that I have where there's I think three or four of us, and we all come from different backgrounds, and just to hear all of us talk about how we use it. It's just so awesome, now I have a perspective of four more people and how you can use drawing and how they're using it in their disciplines. Because there is so many more ways to use it besides sketch noting.

Laura Grundler: Oh, yes.

Manuel Herrera: So I want those to pop up as well. I don't want the whole focus that when we talk about drawing that it automatically just goes to sketch noting. And then it never branches from there. So that's also life goal. I want to show there's more ways to use it, use drawing.

Matt Grundler: I think we all kind of agreed on the idea that, especially for teachers, whether it's art teachers or general classroom teachers or whatever, a fear component. An art teacher might be a little bit more hesitant to... One of your questions was talking about showing examples as a teacher, where do you hit that level of is it okay to show it kind of unfinished, or is it better to show them the final result, like, "Oh, this is all polished up and



this is how it should look," because then that fear that the teacher might have then kicks into the students. So what kind of input could you give for that or a tip maybe for teachers to work with that?

Manuel Herrera: Sure. It kind of started when I started hearing more about sketch noting and seeing what was out there, seeing how people were doing it and seeing different methods people had. And my concern kept becoming, "These all look beautiful, these are great, this is beautiful works of art." I was doing it, but my concern became, "Not everybody's going to feel like they can do this." No matter how you go about it, you're going to miss a large chunk of folks who have some anxiety about it. And by showing them all the beautiful stuff, which is validating, they validate your work, and like I said, I definitely do it, but I think it also scares people off. And they think by seeing this that that's the only way.

Manuel Herrera: And so I got concerned about that, so I started looking more into that, and what are we sharing, how are we sharing, what's the most important thing. And it kind of goes back to your comment earlier, Matt, about creativity, like, "Oh, it's so creative." But some of the stuff we're showing isn't necessarily creative. It's a product of our creativity, that's not creativity. That is a product of it, but the creativity is all the mess and all the ugly-

Matt Grundler: The stuff before.

Manuel Herrera: The stuff before, exactly. And so it was interesting, I went to a design conference in Memphis I guess two years ago, really had no business being there. I'm in education and this was like legit design conference. From textiles to illustrations to jewelry, etc., these were designers. And I went to... And it was amazing and I want to go every year. But I definitely have to-

Laura Grundler: We get that.

Manuel Herrera: I definitely have to be cooler. I wasn't cool enough to be there, I can say that. I felt really old. So I go, and as they're talking, I loved it because the entire time they would share about their work, they shared all the ugly stuff behind it. Every presenter talked about, "This is where I find inspiration. This is how I take in, this is why it looks messy, and this is what it looks like..." They were never there to showcase all the pretty stuff they created. And they were sharing like, "This is what I do, this is what my process is like, this is why it's... this is the ugly of everything." And I was like, "Yes. We need to see more of this." Because even when you look at these people who are professional illustrators, their mess is still a



mess, it is not beautiful. But that's all the thinking, that's all the thinking that goes behind it.

Manuel Herrera: And I remember I took a hand lettering class, and we spent... It was a three-hour workshop, and we spent the entire three hours on one letter. I wish I had a picture.

Laura Grundler: It's painful sometimes.

Manuel Herrera: It is.

Laura Grundler: I remember taking calligraphy classes in college.

Matt Grundler: Calligraphy, oh gosh.

Manuel Herrera: It's just like, "Oh my gosh."

Laura Grundler: The process.

Manuel Herrera: That was it. That was like, "Here's my first letter, and then 75 versions later, here is..." And I'm not saying we have to go to that extreme with kids or teachers, but we definitely have to show them the ugly. So I don't know if I'm answering your question, but I think it's important that we show the work. I think it's important that we show the work behind everything. I don't always have to see the final version of everything. Because that doesn't help anybody.

Matt Grundler: Oh my gosh.

Manuel Herrera: But if you show them, "Here are the five steps I took to get to whatever that final product is," a teacher can find that valuable. Because now it's broken down into chunks for everyone.

Laura Grundler: So going back to your ed tech-ness, one of the things I'm really encouraging teachers to do in artistic or creative spaces is to document, is to show that mess so that kids can see their growth over time. Because I think you're right, as humans, and especially in a social media world that we live in, we only see the pretty end of things. You see the final outcome, but you don't see the mess and the pain and the frustration and the failures that led to that final product. And so what I'm trying really hard... We have iPads and laptops in all of our art rooms, and I want them to get those iPads out and capture the process, document taking pictures of works in progress, taking video, capturing those little quick snippets of working and painting or whatever it is so that the student can value that process. Because that process is where all the learning really happens.



That messiness, those hard moments where they have to work through that, that's where the gold is in my opinion. But as a society, we have to continue to kind of be okay showing that.

Manuel Herrera: Right. It is an uncomfortable thing, especially I guess if you're not... you're somebody who's already reluctant to show your... Yeah, there's a couple books I have, one's by Aaron Drapplin, a graphic designer, and in this book it's awesome, because he has all these... he'll show the final piece, but he shows from the drawing to eventually throwing it into Illustrator, to all the edits until it eventually gets to that. So yeah, it's just great. I know it's hard, how do you get people to be open to like, "Okay, now you think you're a terrible artist, but now I want to see your very first version." But I think the more and more we share that, the more and more people might realize, like, "Okay, it took him a while to get there," or he or she or whoever. Because even kids, what they turn in is usually the final... The final version of what they turn in is usually their first draft, honestly, it's usually their first go at anything.

Matt Grundler: And I think as an educator, working on your classroom or working through your classroom, one, it's kind of establishing that mindset, saying, "Okay..." I used to do... When I taught elementary school, I was doing... I would have certain grade levels in the middle of a project, "Okay, everybody get up, everybody walk around, take a look at what everybody else is doing." And yeah, there's that brief moment of kind of, "Ah, I'm not done, I'm not done, it's not finished, it's not pretty. People are going to judge." I'm like, "Just go. Just go see what you've got." And I do that occasionally, even with the middle schoolers, now that I'm teaching middle school this year. And it's still that little kind of guarded thing, but I have seen them so much more reaching out now to their peers and be able to say... And I think it's changing that tone too. Rather than being a critique, it has that bad connotation to it, I just say, "Okay, go talk to two people, get some feedback on how to improve it." And they come back and whether their peer gave them good feedback or terrible feedback, but still it just gets them more comfortable with being able to say, "All right, here's where I am on this, this is what I'm thinking."

Manuel Herrera: That's so true. And those skills or that mindset hopefully transfers even into an ELA class where they're working on writing. Use the whole peer review, peer edit, you're hoping that that mindset transfers over, like, "I'm not done. I know this is sloppy and this is messy because I'm not done." And that's why I do enjoy paper-pencil so much, because you can't... there's no delete button. You can't erase your work. It's just there. You put it on pen and paper.

Matt Grundler: It's still there, even if you have a really good eraser, it's still there.



- Manuel Herrera: Yeah, it's still there. It's still there. So I like... that's why I do like pencil-paper. I know it's a pain, especially with writing, because you're going to write something once and then type it again. It's time consuming, I get that. But we have to teach kids, these are skills that they need even as adults. It's like you don't always have to have the polished version as soon as you open up the document. Nobody does that. There's very few people that can... I'm sure in the world, that can just blah, and it's done.
- Matt Grundler: Oh yeah, I know. There's layers. We just finished a lesson with my middle schoolers about proportion and drawing people, and I specifically chose this artist by the name of Sanford Greene, and he had a lot of things on Instagram that were works in progress. And I took pictures of it because I wanted kids to see the pencil... Or, I'm sorry, the blue pencil, the red pencil, and then the Sharpie that went on top of it to outline and get all the details in it then. And they were just like, "Whoa." They actually do that too, it's not just...
- Laura Grundler: Well, and I'm over here on my computer, Manuel.
- Matt Grundler: She's highlighting all the people you've mentioned.
- Laura Grundler: This Aaron Drapplin, I'm like, "Holy cow, I'm getting this book."
- Manuel Herrera: It's a gorgeous book. And I used to take it with me, but him and Jessica Hirsch, she's a hand letter, and she's got a book, it's here somewhere, but same thing, she shows all her pencil drawings and everything before she... And then eventually she'll show, "Okay, here's the final version." And so I use that. I use those more so when I have kids who come in and are creating some kind of graphic, some kind of poster. I have a poster printer that prints 42 inch posters by however long. And the kids come in like, "Mr. Herrera, I need to print this." And it's terrible. It's like center lined everything, seven different colors, everything's underlined and bolded because it's-
- Matt Grundler: Eight different fonts.
- Manuel Herrera: Yeah, eight different... The super sharif stuff that nobody can-
- Laura Grundler: That you can't read.
- Manuel Herrera: Yeah, I'm like, "I know what you were going for, but I just want to let you know it's not working." So I have those conversations with kids, and they know if you're going to make a poster and I'm going to spend district money to print this, it needs to look better. And I've told our teachers, I'm like, "We accept terrible, terrible things that we will hang in our hallways



for community members to see, our parents to see, and they're terrible because nobody cares about that." But you would never find an ELA teacher who would hang some student's writing that was in the same condition as those terrible-

Laura Grundler: Right?

Matt Grundler: True.

Manuel Herrera: So it's like we have to at least ask for more from our kids. When the kids... I graduated, I don't know, 22 years ago, and the things in the hallway still look like they did 22 years ago, but yet our kids have access to all these tools. And there's ways to help kids through that process I think. I don't know, maybe I'm overthinking the prom poster.

Matt Grundler: No.

Laura Grundler: No, no, no.

Matt Grundler: No, believe me, you're-

Laura Grundler: For us, you're right on the same page as us.

Matt Grundler: You're speaking to the right-

Laura Grundler: I walk through halls, and I was in a school the other day and they had a bunch of... it was a middle school Spanish class, and I'm like, "What in the world is that on the wall?" I just thought exactly the same thing, I thought, "Clearly we don't have an understanding of how all of this plays into together. That's going to matter for them in their future career." This morning, I was watching TV, I was watching Oprah's Super Soul Sunday. And a commercial came on for the new Chevy Blazer. And in the commercial, this woman says, "Man, I don't know who that designer is, but they need a cookie and a gold star." And I thought to myself, "That's it right there. Everything in this world is connected to design. And if you don't understand that, then..." We don't buy or interact with things unless they're aesthetically pleasing and they're easy to use. That's it. This table, this phone, this cup, somebody sat down and drew everything in here before it ever became a product. And there is this connected piece. And we live in a more and more visually important world because of social media, because of the internet, because of icons and emojis and all of these things. If you're not visually literate, then you're not going to be successful in a career. That's bottom line.



Laura Grundler: And so that's where we talk about this creatively connected classroom is that everything in creativity connects to these kids and their future careers because they have to be visually literate. Which is one of things I like about how you talk a lot about visual thinking. And I don't know if you've read those books about visual thinking, but Harvard and Project Zero put out a lot about-

Laura Grundler: Yep. A lot about visual thinking. And then there's the whole

Matt Grundler: Design thinking.

Laura Grundler: Design thinking as well.

Matt Grundler: And how that all plays.

Laura Grundler: There's visual thinking, there's design thinking, but it all plays together.

Susan: Hey there, it's Susan from EducationCloset. Did you know that we have five online classes to help you meet your PD hour requirements? Each arts integration and STEAM course has been recently updated and is now worth 25 PD hours. And podcast listeners get a special discount. Just go to EducationCloset.com/courses, pick your course and enter the code Podcast at checkout to get 15% off any course. Looking forward to seeing you in class soon. Now, let's get back to the conversation.

Manuel Herrera: We do a workshop, myself and another gal here, in St. Louis, Sadie Lewis. She works in a neighboring school district, but there's a program that our school district has that takes kids from all over the area. But we have ... There's a program that our school district has that takes kids from all over the area. And one of the strands of this program is in biomedical arts... excuse me, medical industry. And so one of the projects they have is designing a biomedical innovation.

Matt Grundler: Oh nice.

Manuel Herrera: And so I brought Sadie in to help me with this because they had kids from her district. And so we worked with design thinking with kids on how to approach a problem, how to identify a problem, how to environment and not accept anything they see but question it all so that they can come up... have a problem. But we do that, we teach design thinking to them, and we try not to make it so design thinking-y. We try not to-

Laura Grundler: Right.



- Manuel Herrera: So step one through five, we definitely try to break it up. But we do talk a lot about visuals, because they have to design these products, come up with the ideas first that solve a problem, but then they have to go show it to nurses, doctors, patients, families, and get feedback from them. And so it's easier to come up with those drawings really quickly and go show them and talk to them than it is for us to like, "Let's go 3D print it." No, we don't even know what we're going to 3D print. So we spend a lot of time meshing those two worlds, the design thinking and visual thinking so that it's... That's where again it comes back to these are original ideas, these are things kids have as a group, everybody's idea, putting them down, mixing them on paper so that they make sense, everybody knows what's going on. So we spend a lot of time on that. But yes, design is everywhere. That's why people buy 15 bottles of... \$15 worth of hand soap because the bottle looks amazing and it's-
- Laura Grundler: Yep.
- Matt Grundler: Oh yeah.
- Manuel Herrera: It doesn't matter what's in it, but-
- Matt Grundler: My hands are going to smell like flowers, freshly cut grass.
- Laura Grundler: Because this bottle looks amazing.
- Manuel Herrera: It does, it does.
- Matt Grundler: Because it's got a picture of flowers or freshly cut grass.
- Manuel Herrera: Like 1920.
- Laura Grundler: Yeah. It's something that... I guess that's our mission to get that understanding out there and to help all educators embrace it and make them more comfortable. If you grew up not having an art class-
- Matt Grundler: You're going to be uncomfortable.
- Laura Grundler: Yeah. I talk to people all the time, they're like, "I never took an art class, I didn't have that opportunity because that wasn't something offered in our school district. There wasn't elementary art or there wasn't opportunities for high school art because of the funding or whatever." So I think we have to... As we always do in education, we have to look for workarounds. You can't rely on just the art teacher. But if you do have an art teacher-
- Matt Grundler: Team up with them.



- Laura Grundler: Go team up with them.
- Manuel Herrera: Oh yeah, oh yeah. It's been funny to find your allies in all of this to help with this message.
- Matt Grundler: Oh, for sure. I remember one of the last projects I did last year with my elementary kids, I pulled in the general classroom teacher, I pulled in the music teacher, and the parts that they did in the art room, and then I showed them because I've got a little bit of a tech side as well, so I showed them, I said, "Okay, you do this part in your classroom, you do this part in music, and we will bring it all together in here and I'll show you how to do that." And the results that came from it, the teachers, both teachers were just like, "Oh my gosh, this is amazing. Who would have thought."
- Laura Grundler: Well, and speaking of allies, you've mentioned so many people during our discussion today, I'm just sitting here and I'm like, "I don't follow them. I'm going to follow them." I can't find Sadie Lewis, I think I'm spelling it wrong.
- Manuel Herrera: I think her Twitter is like SadieChlorinda, C-H-L-O-R-I-N-D-A.
- Laura Grundler: I'll find it.
- Matt Grundler: Yeah, I'm sure you will. Hey, as we wrap up, because we could talk this forever just because it seems like we have so much in common with you.
- Laura Grundler: I'm hoping that we'll cross paths at some conference soon.
- Matt Grundler: We need to. We need to.
- Manuel Herrera: Are you guys going to? Are you guys-
- Laura Grundler: I think that is the question-
- Matt Grundler: The reason why I laugh is because we always get asked that I think with most of our interviews. They're like, "Are you guys going to? Are you guys going to?"
- Laura Grundler: Because we are just the two of us, and we have three kids, and I work year round, I don't think we have the opportunity to go this year because of funding, unless we find some magical sponsor that says, "We're bringing the Grundlers to."
- Manuel Herrera: Make a vacation out of it.



Laura Grundler: Yeah.

Matt Grundler: Oh yeah, that'd be nice.

Laura Grundler: So, not this year. We will be at Learn Fest in Austin because it's close.

Manuel Herrera: Where are you guys? Are you guys-

Laura Grundler: Dallas.

Matt Grundler: We're in Dallas, just north of Dallas.

Laura Grundler: Dallas. And we've been asked to present in California this summer, so we're going to be out there presenting at a University there. So we've got a few things going on, but not this year. But I think the following year if we can try to find some funding we'll try to get out there. We tend to be behind the scenes with the computer and stuff because we're also managing a family in addition to our careers and everything else.

Manuel Herrera: I know what you mean. I've got two little boys. Yeah, it's tough. I was supposed to be at Learn Fest. I was supposed to speak at it, and then I got that opportunity to go to Arkansas to do the keynote and I had to call Carl, I'm like, "Hey, I've never done a keynote and they want me to do it, so I have to decline your offer."

Laura Grundler: Yeah.

Matt Grundler: For sure.

Laura Grundler: Definitely. We'll fill in for you.

Matt Grundler: Yeah.

Manuel Herrera: There you go, fantastic. Are you guys presenting? You guys are presenting?

Laura Grundler: We are both presenting, separately actually.

Matt Grundler: I'm presenting design work that I wrote a lesson for.

Laura Grundler: It's really cool, it's a car design thing.

Matt Grundler: Car design.

Manuel Herrera: Oh wow.



Laura Grundler: Yeah. And then I'm presenting about process journals, about showing all the mess.

Manuel Herrera: And then I found out Manoush Zomorodi is going to keynote, from NPR, I'm like, "Ah, I'm."

Laura Grundler: I know.

Manuel Herrera: I'm so I cannot be there.

Laura Grundler: And I'm doing the pepper challenge.

Manuel Herrera: The pepper challenge? What's the pepper challenge?

Laura Grundler: Because I'm an idiot.

Matt Grundler: Because she'll say yes most of the time. Basically you spin a wheel of all these different kinds of peppers. And whatever pepper you get, you have to eat it, and then you have two minutes to do your little keynote sell.

Laura Grundler: Mini keynote.

Matt Grundler: While you're eating-

Laura Grundler: While you're eating the pepper.

Matt Grundler: While you're still eating this thing and sweating profusely I'm sure.

Manuel Herrera: Only in Texas, only in Texas.

Laura Grundler: Yeah.

Matt Grundler: Brain child of.

Manuel Herrera: That's in Austin. That's where I was from is Austin, so I'm so bummed that I can't get back there. Eating a pepper and then talking, you're going to do this?

Matt Grundler: Supposedly.

Laura Grundler: Supposedly.

Matt Grundler: Carl kind of-

Manuel Herrera: This is going to be livestreamed or something.



Laura Grundler: It probably will. I don't know. I don't know, I'm hoping there's milk available. Maybe I'll land on... We do live in Texas, so there's-

Matt Grundler: You like jalapenos.

Laura Grundler: I like spicy things. I love jalapenos.

Matt Grundler: But-

Laura Grundler: But, I don't know-

Manuel Herrera: You think the jalapeno's going to be the mildest one up there.

Laura Grundler: Right.

Matt Grundler: We're hoping.

Laura Grundler: Exactly.

Matt Grundler: Not the ghost pepper.

Laura Grundler: And I hope I land on that one. Because with my luck, it'll be ghost pepper or habanero or something crazy. But we'll see, we'll see. So I don't know how that all happened. It happened during a podcast actually, I got talked into it.

Manuel Herrera: That's how it goes.

Laura Grundler: But as we wrap, we love to have... Go back to where you were.

Manuel Herrera: Sorry.

Laura Grundler: We love to have some final words of wisdom. What is it that you would tell the listeners as far as getting out there, being creative, jumping in? What would you say to them to inspire?

Manuel Herrera: I think really thinking through what creativity is. It's never about the tools or about the outcome. Creativity never... You're not going to reach that your first 10 times, 15 times, 20 times. It's easy for me to say you've just got to do it, but never worry about your final product. Just continue to evolve whatever you're working on and make it better each time. Regardless of what it is, whether it's a lesson, whether it's an activity, whether it's artwork, whether it's working with kids and drawing, you just kind of have to do it, know it's going to be a hot mess the first 10 times. You just have to kind of be okay with it. That's easy for me to say because



I'm that kind of person, just okay with it. And have somebody with you that maybe is okay with it to talk you off the ledge when it goes all wrong. I think that's the big thing, don't worry about the final product. Stop worrying about the final product, worry about everything before that. If your kid never makes the video, if your kid never finishes the presentation, if your kid never... your students never finish that prototype, if they went from nothing to something, know the next time they do that, that nothing to something is going to be further down the line the next time around.

- Manuel Herrera: You have to teach in the process. The kids are still learning themselves. Those are long words of wisdom. But yeah, that's what I would say for now. That's all I can think of.
- Laura Grundler: No, that's wonderful. Thank you.
- Matt Grundler: Can't thank you enough. So appreciate you taking the time to talk with us.
- Manuel Herrera: This was fun.
- Matt Grundler: And we definitely will have you on again.
- Manuel Herrera: Yeah, I would love to.
- Matt Grundler: And like I said, we hope to run into you at some point, actual face to face.
- Laura Grundler: Yep, there's so much more to talk about.
- Manuel Herrera: Yes, we'll have to do it at some point.
- Matt Grundler: At some point.
- Manuel Herrera: Any time I can get to Texas I will go.
- Matt Grundler: Hey, you're always welcome to Grundler house.
- Laura Grundler: Yes.
- Manuel Herrera: That's awesome.
- Laura Grundler: And it's getting hot enough that the pool is about open.
- Manuel Herrera: Well, I just don't want to go to Texas between June and August, is that okay?
- Laura Grundler: Well, yeah.



Matt Grundler: Sure. You're still looking at hot in October.

Laura Grundler: Yeah, it's true. Yep.

Manuel Herrera: I don't miss that. But I don't like winter. Winter is terrible. I've been here 10 years and winter is never fun. Winter is-

Laura Grundler: I think that's why Game of Thrones, it was all winter is coming.

Matt Grundler: Winter is coming and.

Manuel Herrera: Are you guys watching Game of Thrones? I was-

Laura Grundler: Oh yeah.

Matt Grundler: Oh yes.

Manuel Herrera: Tonight's going to be good. I thought last week, I thought people were going down. But nope,.

Laura Grundler: I hear episode five is supposed to be the best one.

Manuel Herrera: Okay. So we're on-

Laura Grundler: We're on four.

Matt Grundler: Right now, so it'd be the next... Anyway, don't let it ruin it for anybody, don't want to spoiler.

Laura Grundler: No, we won't go there.

Manuel Herrera: Thanks again. Anytime, have me on or even just call me and see what's going on. Let me know.

Laura Grundler: Awesome.

Matt Grundler: Awesome. We appreciate it.

Laura Grundler: Thank you so much.

Matt Grundler: Thank you.

Laura Grundler: All right. Bye.

Matt Grundler: All right, have a good day.



Susan:

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