



Armando Henriquez & Dean Alkire

Armando Henriquez: [00:00:00] You don't need—you don't a Formula Buckeye scheme or you don't need somebody to come and—come to you. And so, like, to bring this opportunity kids, you can make something right there for a moment. It's just a matter of just like figuring out, "What do I want these kids to—what do I want these kids to learn? What do I want them to take away?"

Annalies Corbin: [00:00:23] 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 re-imagine, rethink, and redesign our educational system.

Annalies Corbin: [00:00:59] This is Annalies Corbin. Welcome to the next episode of Learning Unboxed. I am super excited today to have as my guests a couple of folks that are gonna talk to us about, sort of, informal education spaces. We're going to talk about the role of university programs and students actively engaging in student learning in an after school setting. And so, I am thrilled today to have with us Armando Henriquez and Dean Alkire. And they are going to spend some time chatting with us today. So, welcome, gentlemen.

Armando Henriquez: [00:01:38] Thank you.

Dean Alkire: [00:01:39] Thank you. Hello.

Annalies Corbin: [00:01:41] So, just as a bit of a brief introduction. So, Armando is a fourth-year undergrad in mechanical engineering at the Ohio State University. Very important if you are a Buckeye fan. And he is a third-year student participating in a program or a team called the Formula Buckeyes. And in a moment, we'll get Armando to explain to us about what it means to be a Formula Buckeye because, if nothing else, it sounds pretty cool, doesn't it? Yeah, it sounds pretty cool too. He is also a former Metro Early College High School student, which is actually how I first met Armando years ago. And for me, it's a very special privilege to have Armando come back as a

collegiate student; more importantly, as a mentor and teacher now to younger students. That's what we always want to see. And we're thrilled when our students come back in that capacity. So, Armando, thank you for joining us today.

Armando Henriquez: [00:02:39] Thank you for having me.

Annalies Corbin: [00:02:40] So, also, with us in is Dean Alkire. And Dean is an eighth grader at the Metro Early College Middle School. And Dean has been in a program called the Innovators Club, which many of you who listen repeatedly have heard me talk about the Innovators Club off and on on the series. That is our afterschool program. It is an industry R&D team, sort of, camouflaged as an afterschool program, which I always think is pretty cool. And Dean likes robotics programming, problem solving, and being creative. He also may or may not want us to know that he kind of likes taking his piano lessons that he's also doing after school, but he's also participated in a number of the Formula Buckeye programs that have come to the Innovators Club. So, welcome too, Dean.

Dean Alkire: [00:03:32] Hello.

Annalies Corbin: [00:03:35] So, I want to start with you, Armando, very quickly. So, help us understand, first and foremost, what is the Formula Buckeyes?

Armando Henriquez: [00:03:45] Okay. So, the Formula Buckeyes is a collegiate level Formula 1 style race team. And essentially, we get about eight to nine months to build, design, test, and validate a race car. And I guess, the overarching umbrella question for our competition is, who can build the best package race car for best performance, money, reliability?

Annalies Corbin: [00:04:12] That seems almost like a movie script. Like—I mean, most folks wouldn't necessarily say, "Hey, I'm going to go off to college. And, oh, really cool. I'm going to be an engineer," which is awesome, but I'm going to actually get to be part of this team that literally, really, truly builds race cars. So, that's what you're doing.

Armando Henriquez: [00:04:29] Yeah.

Annalies Corbin: [00:04:30] And in your role in that team, you're the mechanical lead, right? Is that correct? Do I have that correct?

Armando Henriquez: [00:04:35] Yeah. I'm mechanical engine lead.

Annalies Corbin: [00:04:38] Engine lead, right. So, wow! As an undergrad, that's amazing.

Armando Henriquez: [00:04:43] It is.

Annalies Corbin: [00:04:44] And so, with all of that, then, so the university here at Ohio State, but universities all over have a million different student teams of a variety of different sort of descriptions of all its functions and structures within your local university system. But here at Ohio State, the university has done a really, really great job of actually having student programs, or student-led teams, or endeavors actually engage in the community, which is what brings the Formula Buckeyes to the PAST Innovation Lab, correct? And help us understand how that works from the university perspective.

Armando Henriquez: [00:05:21] From a university perspective, it's always a good thing to see, like, they're growing students regardless of whether they're engineers or not if, actually, the community

kind of help them learn and figure out what they want to do later on, whether it's going to college or doing something else. And so, the way we work with the university with this is that through SAE and Ohio State. Just a little bit of background, SAE is the Society of Auto—Society of Automotive Engineers.

Annalies Corbin: [00:05:50] Okay.

Armando Henriquez: [00:05:51] They're the ones that run our competitions. They kind of help us. They give us a curriculum-

Annalies Corbin: [00:05:59] Okay.

Armando Henriquez: [00:05:59] ... that involves teaching younger students who want to, like, follow engineering or STEM majors, I can teach like early, early topics that would be, like, critical in their engineering studies. So, right now, we're doing a Gravity Cars, where we're teaching about gravity dynamics, inertia, rotations. So, that's the way SAE helps us like get back to the community in Ohio State for allowing us to do this. So, it's always a good thing, especially for us and also for the Buckeyes. It's one thing that we get to learn and experience ourselves and build the car itself. But then, all the knowledge we gain for you to earn back, we can take that back, and even after competitions, and give that back to the community. We volunteering in teaching our students, "This is what we've learned, this is what we're doing, and like, this is potentially stuff that you need to be doing yourself."

Annalies Corbin: [00:06:54] Right. And one of the things that I always love about that—and, again, you know, we've been working with the Formula Buckeyes for a couple of years now with the Innovators Club, and what I tell people all the time when we speak about near peer mentoring, in particular, which is largely what this is, right? So, as an undergrad coming in and volunteering with other things, whether it'd be, you know, the Metrobots, or any other robotics teams, or the IC club, you know, when you teach it, you know, it. It changes your, sort of, knowledge perception when you actually have to be responsible for making sure that Dean actually understands the physics of a Gravity Car, right, Dean? And so, does Armando know what he is talking about?

Dean Alkire: [00:07:35] Yeah.

Annalies Corbin: [00:07:38] Yeah. Okay, Dean, let's dig in a little bit more. So, how about you tell me about the Gravity Car, and what you've been doing with this project so far. And I know we were joking that, "Yeah, mine runs okay," or maybe not so great. And it varies from week to week, but—so, tell us a little bit about the Gravity Car project.

Dean Alkire: [00:07:58] Well, first, we were shown like a prototype. And then, like, all of us kind of based our ideas off of that, but change it up a little bit in ways, which we think might improve it a little bit.

Annalies Corbin: [00:08:15] So, Dean, what's the premise then of the Gravity Car? I mean, so help our listeners, who—they can't see. And we'll post some stuff for them, and we'll have some photos, and some of those other things. So, you know, when this is presented to you and your expected outcome. So, what is it that you're trying to achieve with this, from your perspective?

Dean Alkire: [00:08:39] Well, I think I'm just, like, trying to achieve, like, as you were saying, like gravity, and leverage, and stuff. I mean, like the design, like design challenge with something is like to provide cars for people who do not have the money for like electric cars. Wasn't that it?

Armando Henriquez: [00:09:02] You could say that, yeah.

Annalies Corbin: [00:09:02] So, when you're participating then—and one of the ways just so that our listeners have some context. So, in the Innovators Club, we have a number of different projects, some of them are coming from teams like the Formula Buckeyes. Some that are coming from industry partners. I can't remember, Dean, if you were there yesterday, but we launched a new project yesterday around PSAs. And some of the—these different projects come to the Innovators Club. And then, you spend X number of weeks working on those. And then, you move on to other sorts of projects. And so, one of the other projects that you also did via the Formula Buckeyes and this SAE curriculum—and we're going to circle back around on that a little bit, Armando, because we've had some experience with that in the past. That's a really, really cool program that is fairly accessible for folks to be able to get their hands on and try another in other settings. But you also, Dean, did hydrogen fuel cell cars. You did battery-powered cars, and you did gliders. So, tell me about the hydrogen fuel cell cars because you were part of that group too.

Dean Alkire: [00:10:02] I think those in sixth grade, well, I barely remember it. I remember thinking it was pretty cool. One syringe like has water in it. And then, another syringe has nothing in it basically. Put them together with a device and, sort of, water comes in, and the air likes exudes out in the other end.

Annalies Corbin: [00:10:38] And off that car goes. Yeah, pretty fast. I remember seeing them zooming across the atrium, right? Yeah. Racing a little bit, yeah. Some better than others, so. So, Armando, when you sit down as a team then and say, "Hey, we're headed back to the Innovators Club," how do you decide which of the SAE curriculum or programs as a team that you're going to branch here? What does that look like internally for you guys?

Armando Henriquez: [00:11:08] Internally? So, it gives us a few options, but it's solely dependent on like what our age ranges—like what we're looking to provide for certain age ranges. So, specifically, for these type of age ranges, I think six or eight, then use the Gravity Cars as an option. I think, I remember that being the only option but, I mean, every single time, we do one of these. Like it's always about, like, you know, teaching these guys the design process, what's it like to actually, like, think through and go throughout the processes of the design process, iterations, what changes did I make from the previous iteration better, things like that. So, that's kind of from our end. Just like we've seen it, we've done it-

Annalies Corbin: [00:11:48] Right.

Armando Henriquez: [00:11:49] ... and we've found that, we found that multiple times. Like the goal for us now is just to make sure that they grasp this big idea as I go into, like, design.

Annalies Corbin: [00:11:57] And so, when you have the conversations with the students—so, actually, you know, in this setting, So, what are some of the things that you see? I mean, there could be some things that kids grasp really quickly, but there are going to be things that they struggle with too. So, I guess, sort of, both ends of that question, what things do the—are they picking up really quickly? And then, where do you see the, sort of, struggle points?

Armando Henriquez: [00:12:20] They pick up really quickly where they can get, like, really creative as far as like giving themselves away from like the base prototype we initially brought. And so, initially, right off the bat, they're looking at, "Hey, how can I make this my car?" And so, from there, they start to figure, "Okay. I'm—like, I want to put this. I want to put this." And then, from there, the hard part comes in. How do I incorporate that?

Annalies Corbin: [00:12:40] Right.

Armando Henriquez: [00:12:41] Then, from there, that's where, like, we come in, and we start helping them, and say, "Hey, do this," or like "If you're following through and using this concept, we can make this work out of this."

Annalies Corbin: [00:12:52] Right. And so, Dean, when you started the Gravity Car Project, so what kind of modifications have you made? So, back to Armando's point, what did you do to make the Gravity Car yours as opposed to the Gravity Car that's one of the other students? So, what's different about yours?

Dean Alkire: [00:13:09] Well, first off, I made it shorter in height.

Annalies Corbin: [00:13:14] Why?

Dean Alkire: [00:13:15] Just because.

Annalies Corbin: [00:13:17] Okay.

Dean Alkire: [00:13:17] Yeah.

Annalies Corbin: [00:13:17] Okay.

Dean Alkire: [00:13:19] I also put some traction on the wheels as well, well, which later got moved because it was not working properly-

Annalies Corbin: [00:13:29] Okay.

Dean Alkire: [00:13:29] ... with the design process. And then, also, I'm fidgeting around with the placement of the lever and the weight on the other end because it's currently not going forward like I want it too. Yeah, that's basically it. I also had some support on it, so that it stays because of the tower.

Annalies Corbin: [00:13:55] Okay, because the top, sort of, tips over or would it maybe?

Dean Alkire: [00:13:59] Yeah, there's a lot of tape on my design.

Annalies Corbin: [00:14:04] It's awesome. We'll post some pictures of Dean's design as well. So, when you think about the modifications that you're going to make, whether it's the Gravity Car or any of the other projects that you've worked on, Dean, do you consciously think about the fact that you're going through the design cycle, and you're actually working towards modifications of working prototype or is it pretty much second nature to you at this point?

Dean Alkire: [00:14:37] Yeah, basically second nature. I just see a problem, and I'm just like, "Oh, how can I fix it? How can I make this thing better?"

Annalies Corbin: [00:14:49] Do you think that that's because you've done it, the design cycle, so many times, or do you think it's because you had an actual inclination, or do you think it's because you are in a STEM middle school, or some—all of that rolled together, or none of that at all?

Dean Alkire: [00:15:09] I actually think it's just because I've been doing it ever since I was young, and I've just continuously been repeating that over and over again.

Annalies Corbin: [00:15:19] But it helps to have some context, I assume, right? So, you know, doing these different types of projects, so you try different sort of ways of thinking about it a little bit?

Dean Alkire: [00:15:28] Mm-hmm (affirmative).

Annalies Corbin: [00:15:28] Yeah. So, Armando, when you sort of think back to your experience having been in the same STEM school that Dean is in, what are the—whether it's a STEM school or not, but the reality is your experience as a high student would fairly steep in design thinking. So, I would assume that that's sort of really helped you when it came time to your engineering program in undergrad. So, what is it that you draw from?

Armando Henriquez: [00:15:59] So, I guess, we can start back from like when I was a student at Metro. And then, from here, it's like very weird folks in like science, technology, engineering, and math. And that's something, like, I've always had a passion for, I like that I can be creative. I found engineering as like a pathway to be creative in my own way. And so, from there, I was able to pick up robotics here and be a part of the Metrobots. And I did that for two years. Then, when I graduated, it's like I miss it. It's like I miss that feeling. So, you know, I want to build something but maybe it's perhaps like, you know, I take a break, give it time. Let me get my time back and pave the way for newer members on the team as well. So, I did that for about a year. And then, I made sure, I wanted my first year in college to be, like, a good year. I didn't want to do anything not laid out for a freshman at 17. I wanted to be able to create stuff [crosstalk]. So, I did that. So, I kind of, like, kept myself away from like extracurricular activities.

Armando Henriquez: [00:16:57] Then, my second year came about. Yeah, I really miss building something. I really miss being hands-on. I miss designing. And that's how I got started with the Formula Buckeyes. Like, I initially found the program, loved it. I mean, it helps to have a fascination for the automotive industry and racing. So, to see something that's like I can be hands on, I can design something, put it on the car and see it work, it is like—it was like I was back on the robotics team.

Annalies Corbin: [00:17:25] A little larger scale.

Armando Henriquez: [00:17:26] Except for a large scale, yeah..

Annalies Corbin: [00:17:27] Yeah, yeah, yeah.

Armando Henriquez: [00:17:27] So—and that's how I got involved with that. That's kind of what helped pave the way for me here. Finding something that I can relate back to robotics and relate back to me, like, using engineering as a way to be creative and be able to like really test my skills in the actual environment, see what I can learn, and see what I can do.

Annalies Corbin: [00:17:49] And automotive engineering or some description, do you think that's, sort of, where you're headed, or some variation, or you don't know yet?

Armando Henriquez: [00:17:57] I think so. I do have—I have a [future] for the automotive industry. As a third year engineering student, fortunately, being in Ohio State, I had an internship with Honda. I've worked in a manufacturing plant. I did a lot of fixture work and design work in that. So, it's really cool, like, actually to get—to be around all the cars and kind of like live part of my dream for a few months. And even then, I've worked in a transmission plant as well as an intern. And so, like, actual,

like, what's goes inside the car. You know, this is what makes the car, actually, like changed gears or [indiscernible]. And then, from my most previous experience, also, I recently got back from a trip at Caterpillar. And from there, I was like very heavy with working with engines. That's what a lot of my work was based off of. I did a lot of engine research, and I was able to like mess around with some simulation to kind of see how that works. So, I mean, I do think the automotive industry is definitely like my path going forward regardless of what I'll be [indiscernible]. I have a passion for engines. That's the thing, I like to go fast and like seeing the way things go fast.

Annalies Corbin: [00:19:04] And not an overachiever or anything. Not at all. So, Dean, when you listened to Armando talk about all his experiences that he's had, and you think about, sort of, your journey forward, are you intrigued by that? What do you think about the things that you hear when he's talking about that? Or we're going to bring it back around to the projects that you're doing in IC, I promise, but I am really curious. You're sitting next to you, right, five years out. I mean, look at Armando. Yeah. I mean, yeah.

Dean Alkire: [00:19:41] I mean, I kind of keep what he says, like, in the back of my head, like, in case I ever like want to get a career because, right now, I really do not know what I want to do.

Annalies Corbin: [00:19:50] You don't need to know right now.

Dean Alkire: [00:19:53] Yeah.

Annalies Corbin: [00:19:54] Yeah. But when you think about—I mean, that's a lot of stuff. I mean, Armando was going through stuff. I know folks who go all the way through college and don't do that many internships, right? That's pretty amazing actually. It's a lot of stuff. So, when you are in IC and the Formula Buckeyes come, talk to me a little bit about the glider project that guys did because I, really, am hopeful that one of the takeaways is that teachers or folks doing afterschool programs will hear about the fact that these amazing programs and this curriculum because the SAE curriculum is out there. It's available, to some extent, some limited forms. But you can get your hands on a lot of it. And even if you don't get something that that's, sort of, well laid out, the reality is there's a lot of stuff that folks could do in after school that's really engaging for students. So, tell us a little bit about the glider project, Dean.

Dean Alkire: [00:20:52] I think that was pretty fun. We got to learn all about like how planes work and aerodynamics. We messed around with, like, rudders and the way—like way the tail was pointing, and the wings, like, where they're positioned and everything, what shape the wing should be, and most importantly, the weight on the tip of the nose, which was a big part and I know—I should know.

Annalies Corbin: [00:21:25] And why is that important?

Dean Alkire: [00:21:27] Because too much, your plane just plummets to the ground. Too little, and it's out of control. Yeah, I have had a look—I had a lot of experience with that. It gave me a lot of trouble.

Annalies Corbin: [00:21:43] Flying around inside. Well—and so, you actually—I mean, I am making some assumptions here, but you were also around for a number of different summer programs too, and I actually saw you flying drones, I believe. I think that was this summer. I saw you flying drones around the atrium. Did anything that you learned from gliders on that project help you when it came time to fly something else?

Dean Alkire: [00:22:11] Sort of. When it comes to like navigating and everything, yeah, and like trying not to hit other drones. But we mainly like control this with our iPads and trying to like land everything,

which that's also applies to the plane thing as well where we try to land it on a specific thing at one point, so.

Annalies Corbin: [00:22:38] Yeah, absolutely. So, Armando, when you, sort of, think about the opportunities as it relates to the things that you could do in this kind of after-school settings, and watching the other students that are with you, I mean, the majority of the team that you have, they weren't here for years, right?

Armando Henriquez: [00:22:58] Yeah.

Annalies Corbin: [00:22:59] So, sort of, what's the feedback loop internally like amongst the team and, yeah, as it relates to the conversations about coming and doing after-school program, whether it would be here or someplace else? I am just really curious. Is it like, "Ah, this is drudgery," or "No, this is a really cool thing, and we're getting something out of it," or maybe someplace in between.

Armando Henriquez: [00:23:17] A lot of the members actually really enjoy, even when it's their first time coming out, especially like when we're building. Like we're actually helping the kids and walking through the processes. Like they really enjoy that because, then, it's like, "Oh, I know that." You know, like, "I learned that way back when. And then, I could actually just decide, like, about it." And they find it really rewarding. And it's very rewarding because, like, you're passing on the knowledge that, hopefully, they'll use and will end up using someday. So, the type of feedback we get, that was like they enjoy it. And then, some of us enjoy working with [indiscernible] our students as well. We find it thrilling. And sometimes, it's also very funny because, then, we get to see that, oh, we were like this at one point as well. It's very nostalgic for a lot of us. And like we—the feedback we get, like, from volunteers, they enjoy it. And they always try to figure out like when they're going to come back.

Annalies Corbin: [00:24:10] Right. And one of the other things and, you know, engineers, in particular, get a bad rep. You know, we laugh about it a little bit, but the reality is, sometimes, engineers get a bad rep about not being very good people-people, right? And that—you know, one of the things that I love about you guys coming in here, and it may just partially be that the folks on our team that are willing to come are more open to that, right? But I think I even see it, for example, with we've had some pretty—I don't know exactly what the right word here is to choose in this case, but some pretty well-regarded engineers doing crazy, rigid research in their own who come, for example, and mentor like with the teams. And we've got a bunch of different robotics teams, not just the Metrobots, who are based here. And so, you know, it's a stretch. It's a stretch to have a conversation. And—but I love the fact that the team is here. You guys are actually engaging in multiple ways. And, you know, my take on it, sort of, you know, the outside looking in is that you guys will be great engineers. You can explain what you're doing to the public because you participated in these opportunities as you were learning your craft. Would you agree with that?

Armando Henriquez: [00:25:30] I would actually agree with that.

Annalies Corbin: [00:25:32] Yes. So, when you think about, then, sort of, like the next things that you would like to learn, not having any clue whatsoever, Dean, and what's in the catalog SAE programs. There's a lot of them actually. There's a lot of cool stuff in that. Well, what would you like these guys to come and teach you?

Dean Alkire: [00:25:52] I currently like the stuff they're showing us now where we like to get to make our own thing while also learning a little bit about everything at the same time. I really like those projects because it's hands-on, and I like hands-on. I also like technology-involved projects. I think those are pretty fun. So, I like to see maybe some of those. But yeah, I really like what they're doing right now.

Annalies Corbin: [00:26:32] That's great. And so, Armando, when you think about, sort of, the opportunities that are possible with these types of club environments, do you see or would you recommend other groups going out and doing similar things? And I guess, the reason I am asking the question is that, you know, on the flip side, our listeners can come from all over, and they do from all around the world. So, the questions that I get after the fact on some of the episodes as well, "Well, I can't imagine doing that in my town," or "I can't—we don't have a Formula Buckeye team," or "We don't have a big university." How could you, as a participant, in, sort of, leading those endeavors help folks figure out, how could I bring things like that back into either an after-school setting or even into a classroom? You know, a teacher is like, "Hey, I'm in a little town. We don't have a science museum. You know, but we have all these business and industry folks, I mean, what would your recommendation be about how you can, sort of, get other entities to actively engage with you in the teaching that you're doing for your students? Because I know, over the years, you saw any number of examples of how that works. So, I mean, for folks that are struggling with figuring out, how do I pull something together, what would your recommendation be because you've been on both sides of the situation now?

Armando Henriquez: [00:27:57] Yeah, I guess, for one, I, definitely, would start getting in contact with, like, some of the companies that are in my local town or like around me, and see what can they do to, kind of, like, help provide these experiences. That's for one. It's an amazing opportunity to get involved with. And I know companies are always looking for ways that they can get involved in their community. So, it's something I would strive for.

Armando Henriquez: [00:28:18] And two, it's like, if they can't get involved with some of the business here, then, perhaps, maybe if you're eager, like we'll have, like, some program for kids in your local town. Maybe it's like take some time, think about, "Okay, what would I like to teach with some of the resources I have available?" You don't need a Formula Buckeyes team or you don't need somebody to come and come to you to, like, bring this opportunity to kids. You can create something right there on the floor. It's just a matter of just like figuring out, what do I want these kids to learn? What do I want them to take away? And I know that's something teachers always think about, like, what

they have in their classroom. It's like, what's the most important thing I want these kids to take away? Is it like in Math, or History, or English? For opportunities that we use, it's just a matter of figuring out, what type of knowledge do I want to pass out? And how can I make it fun while I teach them everything I would need them to know for them to grasp this?

Annalies Corbin: [00:29:23] Yeah. And, oftentimes, one of the things that I hear schools say and talk about with this a lot, because it's a real concern is, how can I bring something like this, and when I've got all this other stuff I need to teach, right? I have this set of outcomes, whether they'd be state, or school, or local requirements. But the reality is, you know, we got all these standards, the stuff that we have this obligation for the Deans of the world, right, to leave middle school or, ultimately, to leave high school having learned.

Annalies Corbin: [00:29:55] And so, you know, one of the struggles lots of folks have is, how do I take all that stuff that I have an expectation to teach, and then add this other stuff in? And my response to that is always don't add it in. Figure out what that expert, that Armando, who is coming in to you, right, he can do a project on gravity cars, and gravity cars meets all the following sets of standards that I, as the Math teacher, or I, as the Science teacher, or whatever, right, have to teach. And I swap that out. I toss those other things and I put this in instead. And I work with my local experts to make it relevant to my kiddos. And it's doable when I think about it that way because, sometimes, it's easier said than done to try to get there. Yeah, yeah

Annalies Corbin: [00:30:42] So, Dean, one of the things that I always like to do in this program as we wrap up is I always like to, sort of, leave with a saying that a teacher, a parent, another kiddo, and another community can say, "I can do that if." And so, my question to you is, if you could change something about the way the interaction with, in this case, the Formula Buckeyes or any of the other programs that come in here, what would you change? What would you tell a teacher or an after-school person, "Hey, you're going to do a cool program, but you should remember X, Y, or Z." You know what I asked of?

Dean Alkire: [00:31:28] Yeah. And, usually, stuff as interactive is pretty fun. And I also like—I would also suggest projects where the kids have to kind of figure it out on their own, which I think is the best way for them to learn.

Annalies Corbin: [00:31:49] Excellent. Excellent. And you agree with that, Armando?

Armando Henriquez: [00:31:51] Absolutely.

Annalies Corbin: [00:31:51] Yeah, shaking his head. How about you, Armando? As we get ready to wrap up what's your big, giant, sort of, giveback to folks thinking about doing things like this? What would you say?

Armando Henriquez: [00:32:05] To the folks that are, like, thinking of something similar to this, I would just say, make sure you're having fun. It's one thing to like be able to teach them, but being able to teach them and have fun, and like take this, like, moment away from stress from your daily life or your work, just relax and have fun. So, when you're having fun, it doesn't feel like work. Everything comes back to you much easier and really like transfer knowledge between you and to somebody else much easier.

Annalies Corbin: [00:32:33] That's for sure. I live that every day. Have fun. People are always asking me, what is it that you do here? And I say, we play all day. Great takeaway. So, thank you, gentlemen, for taking a little time and sharing about your experience with the Gravity Car and Formula Buckeye and that passion of yours, Armando. Thanks for being with me today.

Armando Henriquez: [00:32:52] Thank you for having us. **Dean Alkire:** [00:32:53] Thank you.

Annalies Corbin: [00:32:56] 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.