



Robin Hilsmeier: [00:00:00] Guess what? To the powers that be, if you would look at the statistics, and the research, and the data that we have, you're going to see, this is a really amazing way where you will get better results with more students looking down the line.

Annalies Corbin: [00:00:22] 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.

Annalies Corbin: [00:00:32] 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: [00:00:57] So, welcome to Learning Unboxed. We are very excited today to talk about the role of invention in education. And so, we have two amazing guests with me today to talk about the Invention League and, more nationally, the Invention Convention. And to really sort of understand the amazing opportunity that design thinking and the whole notion of creating, marketing, and pitching ideas can have on students, on schools, on education in general.

Annalies Corbin: [00:01:32] So, we have with us today Robin Hilsmeier, who is the Executive Director of Invention League, which is Ohio's version, I guess if you will, or chapter - they're going to explain how this all, sort of, rolls together here in just a minute - of the National Invention Convention Program, at large.

Annalies Corbin: [00:01:54] And so, Robin comes to Invention League as a former teacher, an elementary school teacher, in particular, out of northern Ohio. She's based in Cleveland these days. Lots of experience in corporate and nonprofit management. 25 years in really thinking about design thinking, the role that it has, and the potential impact in the community.

Annalies Corbin: [00:02:15] She's also a former foster parent and has three adopted children, including some special needs children. And so, she really thinks very, very holistically about the way that students, schools, and communities can engage in the future of learning, teaching, and work, for that matter. So, thank you, Robin, for joining us.

Robin Hilsmeier: [00:02:37] Thank you. It's a pleasure to be here.

Annalies Corbin: [00:02:39] And, also, with Robin today is Jim Bruner, who is the President of the Invention League's board. And we asked Jim to come because he has been lifelong and passionate, incredibly passionate, about design thinking and the work that comes with it and comes out of it.

Annalies Corbin: [00:03:00] The other thing to know about Jim is that he is also with the PAST Foundation. He is one of our very valued assets, if you will. Probably our biggest champion, internally, for the work that we do. And he's had 19 years' worth of experience as a judge, or a participant, a mentor, an advocate for both state and national invention conventions, and local and state science fairs. Anything that has to do with the way students think about the world, Jim is all in. So, Jim, thank you for joining us as well.

Jim Bruner: [00:03:35] My pleasure.

Annalies Corbin: [00:03:35] So, I want to just, kind of, roll up our sleeves and dig right in today. And I want to start with, sort of, setting the stage. First and foremost, Robin, if you would, sort of, share with us the 100,000-foot view of the Invention Convention nationally, it's sort of -- its aims and scopes, if you will. Because that really, then, sets the stage for what we're doing, in particular, on the local level. And it's that local, sort of, work that the folks that are listening are going to be able to really, sort of, dig into. So, set the stage for us.

Robin Hilsmeier: [00:04:10] So, the Invention Convention gives students and teachers -- and it is school-based, but then in addition to that, we have homeschoolers who can

go through the program. So, it doesn't necessarily have to be in a traditional school model. But the curriculum is all connected with Common Core. And that's because it helps our teachers out.

Robin Hilsmeier: [00:04:37] Today, teachers, at this point in time, are given specific requirements that they need to cover. And we want to make sure that everything we do is aligning with what they are doing in the classroom and the state standards. So, the curriculum is all connected. The students will identify a problem, and then go through that problem-solving process. So, understanding, and ideating, and designing, building, testing, communicating, all of those different things that they would do in the design process.

Robin Hilsmeier: [00:05:12] So, typically, what will happen is each school, or even a home school, a network will have their Invention Convention for their area. And from there, students are enabled to go to the state competition, which is in July at the Ohio State Fair. And the students who then will move from the Ohio level up to the National Invention Convention, which is held at the Henry Ford in Dearborn, Michigan. So, the students who progressed from the Ohio Invention Convention are, then, given the opportunity to go to nationals.

Annalies Corbin: [00:05:54] And are those Invention Convention or Invention League, depending on how you define it in your particular area, is it available in every state in the US or is it just regional or localized?

Robin Hilsmeier: [00:06:06] Great question. So, Invention Convention is available nationwide.

Annalies Corbin: [00:06:12] Okay.

Robin Hilsmeier: [00:06:13] Each state operates theirs in a little different way. They don't all run exactly the same, but the invention convention program is something that is available across the country and even internationally now. They may have moved

international. And so, while we, at Invention League, operate the Ohio Invention Convention, yes, across the entire United States.

Annalies Corbin: [00:06:42] Perfect. And so, Jim, just so that our listeners have a sense of this, so, clearly, it's a national and international program that has a set of tenets based on the design cycle. But, ultimately, the end of the day, where do the ideas come from?

Jim Bruner: [00:07:02] And that's probably my favorite thing about Invention Convention is that the ideas actually come from what the kids see in the world. And some of the problems that they identify as needing an invention, a solution, are really remarkable because the way that they see the world is so unconstrained. And so, they identify a problem, and the solution that they come up with is incredibly unique. And sometimes, it's naive. They're young. But other times, it's like, "Why doesn't this exist? Take my money now." It's just such a great idea.

Jim Bruner: [00:07:36] And that's the part that I fell in love with when I first went to an Invention Convention in 2000. I was completely unassociated with design thinking at that time. And I was working at a tech facility for the state, and they asked me to be a judge. And I went in thinking, "Oh, this will be a science fair." And I couldn't be more wrong. It was science fair with purpose is what I like to say. The kids have to create something that is an answer to a problem, and it's a product. And then, they sell, and market, and promote that product with data, similar to science fair, but the data is taken from real-world learning and from failure. which is the part that I found absolutely fascinating how fearless these kids are. Failure is a data point to them.

Jim Bruner: [00:08:23] And I think that's really the way that we should approach design thinking rather than, "You get one shot. You better make it count." "I better -- I could iterate this. I could have a product. And it didn't work, so I learned from that, and this is my next prototype, and my next iteration." And as a designer, that's the world I live in. And it never occurred to me that you could teach kids problem-based learning that way by play and by answering a real-world problem that's very important to them. And you

see it a lot especially with kids with medical history or issues in their family. They come up with some really fascinating solutions to problems that you would never think about.

Annalies Corbin: [00:09:00] Well, and their problems are really amazing. And, you know, full transparency to our listeners, you know, almost everybody, you've mentioned the word science fair, folks have a mental image. Whether they've participated, or they've been there or not, that's fairly ubiquitous, you know, that folks understand, sort of, what the concept thing of that is. The first time I ever saw an Invention Convention, like Jim, I was just really, really blown away. And the reason we wanted to bring it in as a case study for Learning Unboxed is because the impact of this particular type of positive disruption, right, the long-term impact for students who've participated in this program, it's pretty astounding.

Annalies Corbin: [00:09:44] And so, it's just one of those things that if there's an opportunity for you to participate or bring it into your community, it's definitely one that you should think about and figure out how to pull it in. So, on that note, Robin, a few more details about, sort of, the program designs that folks understand it. You know, how old are the participants? How do you actually get involved, and engaged, or even find a program locally where you are? What would that look like?

Robin Hilsmeier: [00:10:17] So, our students can be anywhere from K clear on up. Thus far, we have had a lot of K through 8. We recently started expanding up in through the high school years and have had some inventors come through now that are in high school. And whether you're -- truly, whether your school district does this or not, a student could come in on their own. So, ideally, we love to have school districts join us, and that would be through the school system.

Robin Hilsmeier: [00:10:50] Typically, maybe a STEM director or, sometimes, a gifted program within that school district would contact us at Invention League, or our team would reach out to them, get them all the resources that they need. But you don't necessarily have to come in that way. You could say, "You know what, my school doesn't do this, but I would love to come in on my own just because I love this kind of thing," to move forward. And we certainly welcome those students just the same as we

would coming in through a school district. It doesn't matter which avenue you use to come into the program.

Annalies Corbin: [00:11:27] And there's a lot of information that's readily available. You can just Google Invention Convention, and you will get a lot of resources available to help you, sort of, figure out and find it locally in your community or your state, so.

Jim Bruner: [00:11:38] Inventionleague.org has a good explanation on that processes.

Annalies Corbin: [00:11:43] As well, perfect, perfect. So, Jim, talk to us just a little bit about, sort of, that timing. So, I want to opt in, whether it's an individual or as a school. And so, then, what happens next? Walk me through. I'm a student, and I'm going to participate.

Jim Bruner: [00:11:59] So, traditionally, the way it's been done has been that a teacher engages with Invention League or Invention Convention, whoever is providing some sort of professional development on how you get kids thinking and the design thinking space because it's not an intuitive space for traditional education to be in. So, we provide professional education opportunities to teachers before the school year begins. And then, they opt to integrate it into their education offering for their class.

Jim Bruner: [00:12:29] Occasionally, we'll have homeschool groups, as Robin mentioned, that opt in for it. But it happens usually in the fall or early winter. We really like the kids be able to percolate on ideas over the holiday because they have the time to do it, and that's when they have downtime to build something because something needs to be built. You need a prototype to demonstrate your proof of concept. And then, they come back in the spring, and it's usually a regional event that the kids compete in that is local, so that those kids can be sent to state.

Jim Bruner: [00:13:01] Where we have a hiccup right now is that NICEE, which is the National Invention Convention, takes place at the end of May, beginning of June, but our state event takes place in July during the summer. So, we have the kids. We have this unique opportunity that the kids have these inventions ready to go. And as board

president and working with the former executive director of Invention Leagues, who's now with nationals, by the way, we decided this is the perfect opportunity to teach the kind of skills we want these kids to have, iterate your concept over the rest of the summer, perfect it, make it sharper, make it better before you have the opportunity to go to NICEE. And we're one of the only states that does that. And it's kind of an accident but a welcome opportunity for the kids to say, "Yeah, I could make this better. Yeah, I could make my pitch better." And so, they have time to iterate even further.

Jim Bruner: [00:13:55] We're looking for opportunities to shorten that lead time. And as board president, I have been charged with innovating this project. And that's exactly what I intend to do. I intend to disrupt it and make it even more culturally relevant where teachers don't have to be led or shown. This is a way of thinking that we would be a thought leader in this. And Ohio really needs to be integrating this into school because this is how children play, but it's focused play for the good of humanity and the good of society. And a lot of these kids, because they have that time from July

through to the next year, actually, file for provisional patents. 60% of the kids that go through Invention League or Invention Convention in Ohio actually file for provisional patents on their ideas.

Annalies Corbin: [00:14:47] Which is a stunning- **Jim Bruner:** [00:14:48] Unheard of.

Annalies Corbin: [00:14:49] It's just a stunning, stunning statistic, right? And the fact that these kids and these individual pockets are able to do that. So, imagine if -- and this is the part that gives me, sort of, you know, goose bumps to think about. So, imagine if that became more mainstream.

Jim Bruner: [00:15:05] I imagine it all the time.

Annalies Corbin: [00:15:08] I know you do, Jim. It's one of things that we love most about you. But Robin, you have to live the reality of Jim's imagining, right? So, you have the Ohio Board President of Invention League saying, "Hey, this is what I imagined, and

I want to see that happen," but it's on you day to day, right, to literally lead this organization into the next iteration or phase of what it's going to do. So, how do you take something like Convention League and make it mainstream? Because that's something that we struggle with as it relates to innovations in education and workforce development, no matter what the topic is, what grade level. How do you take these innovative amazing ideas or experiences, and make them the everyday? What do you do with that?

Robin Hilsmeier: [00:15:59] So, as the executive director, I see such amazing potential when Jim and I first met for the first time to discuss me coming on board. You know, we met at a restaurant. He kind of mapped out our future on a napkin and leave. I have that napkin, and we're going to save it because I said, "10 years from now, we're going to pull this out, and we're going to bring this show that we got there." But the question that you asked raises some challenges. Quite frankly, we see the value. I have seen it firsthand. The amazing way that this can transform the way kids learn.

Robin Hilsmeier: [00:16:42] Unfortunately, in our school system, as it stands right now, teachers are required to teach a certain way. It is mandated to them. And I would love to see, as we move forward, to be able to actually show the data, show that research to say, "Guess what? To the powers that be, if you will look at the statistics, and the research, and the data that we have, you're going to see, this is a really amazing way where you will get better results with more students looking down the line."

Robin Hilsmeier: [00:17:23] So, I'd love to transform that as we go forward. The school districts that we have now, who come on board, will say, all of them, this is amazing. And we see such valuable outcomes based upon what our students do. And we love that we want to further push that, and market that, so to speak, and hopefully get those results to the people that need to hear the results in order to make that happen.

Robin Hilsmeier: [00:18:00] Another part of this that I just love, and I'll kind of throw it in here, early on, Jim mentioned to me, "Oh, we really want to make better humans through this." And I judged for the first time at the Ohio Convention last July. And since that time, I've had the chance to meet different inventors. And in addition, this past

weekend, we had an amazing event where we were working with our group of Ohio delegates, who are now going to go on to nationals at the end of the month.

Robin Hilsmeier: [00:18:41] And as a person who, in my personal life, kind of lives in the world of disability with my my son, I have seen how the kids that are going through this program have such a heart to help. That's one thing. They have an amazing heart to help and truly make the world better,

whether it'd be for a specific field. Okay, agriculture, and they're working to do that. Just this past couple of weeks, I saw two of the inventions that were very clearly designed for the world of disability. Okay, because I live that, I said, "You know what. You are right on. I think that's absolutely what those individuals face, number one. And you're doing something to help them." So, thank you to those inventors doing that, but they have such an empathy to help others and make the world a better place.

Robin Hilsmeier: [00:19:50] I think another part of this, going back to your original question of how do we see this working its way out for the future, I think it's important for us to also bring in business and the business field. And I've spent a lot of years in business management and can also say that the skills that the kids learn right now, even if they're in second grade, and they are working on their projects, and doing the process, a second grader is already learning such valuable skills that they will need to be an excellent employee in the future.

Annalies Corbin: [00:20:32] And an amazing adult and citizen, right? Yeah, as they go about influencing and impacting our world. And I have seen some amazing things come out of Invention Convention. And so, you know, speaking of the kids, you know, Jim, you've been immersed for a really long time. And I know that there are standouts. So, share with me, you know, an example within the last year or so of a kid and a project that has such impact on the world.

Jim Bruner: [00:21:08] Yeah, I'm glad you asked that question because I have seen two that really stand out to me, for Robin's point, speaking to empathy, but also thinking about holistic thinking. And one of them is a young lady, who her grandmother is diabetic. And she noticed the problem was that her grandma couldn't use all the insulin.

She gets to a point where there's a little insulin left in the bottom of the bottle, but she couldn't get it out, and you can't reuse that insulin. So, she would toss the bottle. And this particular student was like, "Well, that's dumb. Why can't you reuse it?" And that's where she learned about sterility, and that's where she learned about the FDA.

Jim Bruner: [00:21:48] And so, she started doing real world research. I mean, active research on this. And she learned about what sterility means, what those standards are, what the World Health Organization's standards are that are different than the FDA. And she started doing surveys. This is a fourth grader doing surveys.

Jim Bruner: [00:22:06] And she figured out a way to create a device that will spin the tubes under heat, and pull all of the insulin through the membrane, and catch it, keep it sterile, and then collect enough of it that she could donate to African nations, which she found out have between 110,000 and 125,000 diagnosed Type 1 diabetics. And she could send it there. And that insulin wouldn't go to waste. If we can't use it here, it doesn't mean somebody else in the world can't.

Jim Bruner: [00:22:37] And she came armed with that data and armed with this vision. And she won the Edison award this year. There was no way we could not give that to her. And then, it goes the other way. Another kid-

Annalies Corbin: [00:22:48] And I want to stop you first because if that doesn't give you pause, what you just heard, right, a fourth grader who changed the course of human lives in Africa because of paying attention and distilling out an issue that was near and dear to this child is probably one of the most powerful examples I would argue for the future of the world, right?

Jim Bruner: [00:23:15] Yes. And if you're a teacher listening to this, this is the fact, she's already thinking two inventions ahead. She's already iterated this, and she's thinking about her next invention.

So, she's applying critical thinking. She's writing. She's doing research. This has motivated her to do active engagement with the world.

Jim Bruner: [00:23:33] And that's what I want in an engaged learner, right. I want someone who's thinking about problems and actively attaining skills on their own to make that happen. So, I mean, that's the real power of this. And this is what you need to leverage as an educator. And I don't know how to get educators to see the validity of this. You want these kids having agency for problems. They have a voice, they have an idea, they have a way of acting on that. All you need to do is give them the standard, give them the space and the time, and step away.

Annalies Corbin: [00:24:08] But I think out of fairness, right, I think we need to be really mindful. It's the rare educator that I meet that doesn't want that too. What we're really talking about is a misalignment of systems.

Jim Bruner: [00:24:21] Yeah, I think you're right.

Annalies Corbin: [00:24:22] Right? Because I think that the intent -- and Robin's shaking her head yes. So, for those, you know, in radio land, you know, we're chuckling, and laughing, and saying yes, right, that this is not based on a lack of will or want; that this is really about how do we help restructure our existing system of teaching and learning in such a way that it can promote the opportunity that is the 21st Century, right? Because the reality of it is that the rate and pace of technology, and the rate and pace of global economic and cultural shifts, because it's happening just at a pace we've never even contemplated before, that the way we have to approach the teaching, learning, and future of work component of our world is very different. And we're talking about systems that have yet to iterate.

Annalies Corbin: [00:25:20] So, how do we best help those in that space appropriately manage that change and transition? And Robin, as a former teacher, I have no doubt you wrestled with this. So, when you think about the things that the kids are doing, what is your recommendation to that teacher in the classroom that hears this amazing story that Jim just told about this child, and this child's potential, and says, "I recognize that every kid in my class is capable of that same thing"? What do I do with that?

Robin Hilsmeier: [00:25:58] You know what, you touched on it. And it's true, I'm shaking my head yes. I completely agree with you. I think the teachers, and I have many, many friends who are still teaching in the classroom, and would love to have education redesign. And I know that the PAST Foundation talks much about redesigning the look of education. And I am in agreement that probably 98.5% of the teachers would want to jump right on board with you in doing that.

Robin Hilsmeier: [00:26:38] So, I think, a couple of things. We, as organizations, who have the opportunity to collect the data, collect what we need, to show those that this is an amazing way for students to get engaged, I think it can go on two different fronts. So, while I taught at a general education classroom years ago, and I was back in the day where we could do it the fun way, and we could do project-based learning, and do all these cool things, and have kids experience learning while they're doing things that they thought was just a blast. And that's the beauty of Invention Convention and what, eventually, it's helping kids do. So, I do think teachers would love to do that. I think we need to help equip them with the chance to show districts, show state leaders, that this absolutely makes a difference.

Robin Hilsmeier: [00:27:45] Another little component that I love about this, and again it comes from my world that has been in general ed and walking through personally special ed, this is very inclusive.

Annalies Corbin: [00:28:00] Exactly.

Robin Hilsmeier: [00:28:02] The way that you can pair groups of students together. So, you know, in the world of school, have your gifted students paired with your special education classes, and some beautiful scenarios can come out of that on so many different fronts, not just the invention part of it, but going back to making them a better human. Kids, and especially young kids, are so loving and typically very accepting. We see that very often with younger kids.

Robin Hilsmeier: [00:28:43] And, you know, they don't necessarily see disabilities the way an adult would. And I think that that is just another little side advantage, an

amazing thing about this process in redesigning the way education looks that even from a very young age, all the way on up, we're changing our culture in the way that we look at learning differences and how those two can be merged, again, for the better and solving real-world problems.

Annalies Corbin: [00:29:20] And I think we're also -- to sort of piggyback on what you're saying, Robin, we're also realigning the way we think about constraints, right? I mean, that's one of the other things that I -- and I am reminded over and over again at the PAST Innovation Lab. I joke that, you know, when I'm having a not so great day, you know, the amazing therapeutic thing for me to do is to go out into the atrium, the big open collaborative space at the Innovation Lab, and just sit, and watch what's happening, right? I don't even have to interact with anybody, a student or any of the guests that are in the building, but just to observe.

Annalies Corbin: [00:30:06] And what I see repeatedly over and over again, no matter which group is in there, I see the lack of constraints in what's happening. And what I mean by that is that, you know, to your point, students, especially young students, don't know what's not possible. And because they don't know that something can't be done, or shouldn't be done, or that's not the way we do it, right, they are so incredibly creative.

Annalies Corbin: [00:30:38] And to your point, they are inclusive in their creativity, just by natural design because, quite frankly, we've enforced that kind of thinking or way of being out of them. And I've often said that I would put the kids at the Innovation Lab up against any R&D team in the world, not because I believe they can come up with better solutions to problems, but because I believe they will come up with better possibilities to the problems. And I think that's a really powerful thing.

Annalies Corbin: [00:31:13] Jim, you know, you were mentioning the work of the student. You said there were two in particular. What's the second case?

Jim Bruner: [00:31:24] So, it's the under -- I mean, it's the opposite, but its impact is equally valid. The young gentlemen with Columbus City Schools that came through a program sponsored by AAP, who's one of our corporate sponsors. And his idea was to

rethink the golf ball tee. So, what he did was he did a boatload of research on water soluble materials that are also biodegradable. And he happened upon this one material, and he built a mold out of this material that was the shape of a golf tee.

Jim Bruner: [00:31:57] And he did multiple iterations of it to make sure that it would hold up, and it wouldn't break when you hit it. And if it did, no big deal, it was low cost. And he created a system where he could create 25 at a time, and bake them in an oven for 15 minutes, and they were good to go. But his innovation was that he planted seeds, grass seeds, in the middle of the golf tee.

Annalies Corbin: [00:32:18] Oh my gosh.

Jim Bruner: [00:32:18] So, if you leave the golf tee on the grass the only negative side effect is that more grass grows. And I just thought that was outstanding. And we're going to see that more in July because he's coming up for state. He did get through regionals because I thought that was outstanding. But it's just a small sidestep to what's the real problem here. You don't have to solve diabetes. Having a problem that people can relate to, like golfers who have to go back and find their tees. No, you don't.

Jim Bruner: [00:32:47] And he calls it the eco-tee, which I thought was just great marketing. And he had a whole business plan around it. And he'd done lots of research with his granddad on the golf course. And a good friend of mine, her whole family are golfers. And I thought, "Oh my God, Lori would love this." And it was just such a great idea. And it's an example of why hasn't someone done this, you know? And he figured it out.

Annalies Corbin: [00:33:13] And the reality is it was that natural curiosity that led him down that road. And think about the fact that, you know, as a planet, as a system, a global system, we are actively, right now, trying to reduce our impact on the planet.

Jim Bruner: [00:33:30] Exactly.

Annalies Corbin: [00:33:30] You know, everything is about recycling, and so on, and so forth. And this kid just, you know, completely worked around kind of what's happening to a practical point in time and space that's about, "I don't have to recycle anything because I'm going to actually grow something instead."

Jim Bruner: [00:33:47] Well, and that's the thing, on his board, prominently featured was the number 16,000. And you ask him, "What is 16,000?" He said, "That's the number of birch trees we process every year for golf tees."

Annalies Corbin: [00:33:58] Wow.

Jim Bruner: [00:33:59] Every year.

Annalies Corbin: [00:34:00] What's that carbon footprint? **Jim Bruner:** [00:34:02] I know.

Annalies Corbin: [00:34:03] You know, what's the equation of the energy loss consumed and so on? And I think, yeah, those are the kinds of things that through this type of teaching and learning that I think are that big, giant, powerful wins.

Annalies Corbin: [00:34:17] And I also think that as schools think about, "How do I bring these types of programming in?" at the end of the day, you know, Robin, part of it, it's basic economics, right? We have this sort of this test-or-perish ethos that's often attached to schools. Not always out of fairness but, often, it is, right? But there's an economic impact of that sort of ideology, the ethos of if that is what school is about, then it's going to get us here.

Annalies Corbin: [00:34:49] But the reality is if we transition and make it about, you know, solving world problems or changing the way we think about who we are and our role in that, it's a very different economic impact. And the reality is, just purely from that sort of standpoint, if you think about the economic drivers tied to why we do what we do, we are going to get a lot further down the road, have larger income, bigger profits,

bigger opportunity because we've transitioned the way we think about where we interact.

Jim Bruner: [00:35:23] Well, I also think exposure is a big component of this as well. You asked how we get more teachers and students engaged, it's exposure. They need to know, one, this opportunity

exists. Like last weekend, another one of our corporate sponsors is Honda, and they asked us to hold a mock Invention Convention at Honda. The first of its kind in the nation, where a private company asks us, "Let us hold an Invention Convention. Let's rethink this model. It doesn't have to be in schools. Why couldn't it be here?"

Jim Bruner: [00:35:52] And the innovation there was not only that a private entity was doing this, but they wanted opportunities for their young professionals to mentor these young people because Honda has been sponsoring Invention Convention for eight years now, and their employees come back hyper-energized to do more work for Honda because they see the value of this kind of mentorship.

Jim Bruner: [00:36:12] So, they wanted to build a mentorship opportunity in. And I totally think that's the way all Invention Convention should go because that opportunity for Honda employees to mentor these young people, may judge them first, but then they come back and say, "You know what, if you really want to knock this out of the park, think about this scale, or think about this number. Think about how you're acting on your data. Think about how you're collecting your data." I mean, just real moment-to-moment mentorship. That's the future of education.

Jim Bruner: [00:36:40] And in a hyper-connected world with social media and access, this is the way it should be evolving. We should be using social media and access to the internet intentionally. It's part of these digital natives' lives. Let's evolve it that way. So, that's my board president hat talking, but that's one way we can do it. People need to know the opportunities out there. Take it.

Annalies Corbin: [00:37:02] So, Robin, tell us a little bit about what that looked like then at Honda? So, were these the same ideas that kids had been working on, or was

there a new set of challenges that this, sort of, spoke to? How was the structure of this different than what you've been doing before?

Jim Bruner: [00:37:19] So, as we mentioned earlier, our kids have their Ohio Convention in July. And so, they have almost an entire year before they are heading off to nationals. So, they've had time to work on it. So, I see it is moving further. So, you start with your kids going through the local and, you know, the regional area. So, you're kind of going through kids who just went through it to have fun and to come up with an idea to get those, who have some pretty great ideas. And now, they are moving on to further levels.

Jim Bruner: [00:38:03] So, the kids that were with us last week at Honda were all kids who will be going to nationals. And we took groups. All the kids are judged in circles. And that's just the same as they are at the state competition as well, as they will be, in addition, at the national level. So, we took an experienced judge and put them with another judge that might not be as experienced. And they worked with the students, gave them a chance to do their big pitch, just like they will do at nationals. And then, we let the kids go. The groups of judges got together, and collaborated, and looked at all of their data, and their research, and their logbooks.

Robin Hilsmeier: [00:38:54] And then, this is where the mentorship piece comes through that Jim was talking about that was new. And all of us just kind of walked away saying, "Wow, that was amazing," because we had each of the inventions, whether they were individuals or teams who invented together, came back and sat down with the judges, who then spent 15 minutes with them just truly mentoring, telling them-

Annalies Corbin: [00:39:29] Awesome.

Robin Hilsmeier: [00:39:29] ... "Here's all things that we thought were great. You did excellent at all of these things. Now, next month, when you are in front of the judges at national, here some suggestions we have that can help you be even better prepared for what you're going to face at the national level."

Robin Hilsmeier: [00:39:51] And it didn't matter whether it was student, parent, or judge, all of those sides, we didn't hear one negative comment. We were pretty jazzed about how everybody felt about it and, truly, for the purpose of how do we help the kids be even better. So, they already have a passion. These are kids who love what they do, and love their invention, and truly want to make it better, and see it go as far as they possibly can.

Annalies Corbin: [00:40:25] Yeah, it's an awesome thing to behold. So, Jim, is there middle ground? So, you know, at PAST, we often talk about the opportunity to toss kids in to solve problems, and then to very quickly get all the way to pitch, which is essentially the gist of Invention Convention originally. But is there an opportunity here to sort of take what you do natively with Invention Convention and through Ohio Invention League, and the idea that you just sort of went through at Honda and create a localized fast pitch? So, I'm thinking sort of a combination of Invention Convention meets Startup Weekend.

Jim Bruner: [00:41:17] Exactly.

Annalies Corbin: [00:41:17] Right? Because it would seem to me that that that's a localized opportunity that, even if you can't leverage to participate in Invention Convention statewide, you have a local opportunity to take on the flavors of it as a mechanism to introduce it.

Jim Bruner: [00:41:32] That is definitely something I want to explore actively. And I want to commit resources to it. Every community could be doing this.

Annalies Corbin: [00:41:39] I mean, we kind of do it at PAST in a sense, when you think about our design challenges or our summer programs, right? They're very, very short in duration versions of what you're talking about. And I would also assume that, you know, sort of, in the future of Ohio Invention League is some type of summer or very dedicated experience that could be made available in a short duration, you know, all within that sort of lens of I've got this captive audience, right. And we're looking to do something else. So, I think there's some intriguing possibilities wound through all of this.

Annalies Corbin: [00:42:19] So, as we think about sort of wrapping here, I always like to end these conversations with, you know, sort of, high toss, so to speak. So, Robin, you know, for our teachers who are listening to this today, you know, who are contemplating taking this on, what's your one piece of keep in mind, or don't forget, or if I had to do it over again, this is the thing that I would I would be mindful of as it relates to bringing Invention Convention to your community.

Robin Hilsmeier: [00:42:53] You know what, I think, because teachers are, oftentimes, so concerned about getting all of their standards met that they have to meet by certain times, I would want to encourage teachers to know, you know what, we have it all mapped out. So, you don't have to do that. I want to save you time. Having been a teacher, I completely understand that people say, "Oh, you're off three months a year. You know, wow, what a job." No, they really aren't. They work 12 months a year, and they work really hard all year.

Robin Hilsmeier: [00:43:30] So, we, eventually, want to make it as easy as we possibly can for you and your students. So, we will walk you through and help you to do that, so that it's not something

that someone would think is a burden. It's the total opposite. It's a great opportunity, and you actually have a whole team working behind you to help make your job easier.

Annalies Corbin: [00:43:59] That's awesome.

Robin Hilsmeier: [00:43:59] So, a teacher wants to hear what could make my job easier.

Annalies Corbin: [00:44:03] Yeah, exactly. And I would add, it's a joyous experience doing Invention Convention is a joyous experience.

Jim Bruner: [00:44:11] It is.

Annalies Corbin: [00:44:12] So, Jim, leave us with that.

Jim Bruner: [00:44:15] So, I think, this idea of a summer camp around Invention Convention is an interesting one, and one I'm really interested in exploring because it activates the third participant here, which are the parents and the community, who largely is passive because of a taboo that was established a century ago in science fairs that you need to let the kid explore himself.

Jim Bruner: [00:44:37] That's not the new reality. The new reality is teamwork. The future of work is collaboration, and the future of work is the whole community coming together to make this happen. The kids can do the work. They need the help of business and industry leaders, educators, and parents working in tandem. And I'd like to activate that.

Jim Bruner: [00:44:55] So, I'm throwing down, let's restart the idea of Invention Convention over the summer when kids are playing. As you're playing, take a camp, find a camp, and start your own camp, and come up with a problem. It's super easy to do. Like Robin said, we have all the resources on our website, inventionleague.com - the journal, the questions, the standard.

Jim Bruner: [00:45:18] Find the problem, find three of them, select one, come up with a solution, and compete with yourselves, with your brothers and sisters, with your town. Or have your business and industry partner, if you find one who is strong in your community, have them sponsor it. Honda showed us a proof of concept that worked beautifully at a very low lift. This is how we innovate. We try it, we refine it, and we do it better the next time. So, that's my call to action.

Annalies Corbin: [00:45:43] Because at the end of the day, the future of work is, in fact, learning, right?

Jim Bruner: [00:45:47] It is.

Annalies Corbin: [00:45:47] We have a wonderful colleague, Heather McGowan, who advocates for that all the time. And the reality of it is the future of work truly is being a life-long, agile learner.

Jim Bruner: [00:46:01] Yes.

Annalies Corbin: [00:46:01] And things like Invention Convention help us down that path.

Jim Bruner: [00:46:06] They really do.

Annalies Corbin: [00:46:07] So, I want to thank both of you very much for taking time out of your day and joining us in this conversation. For our listeners, we will have resources posted. You'll be able to

dig in and learn more. Please ask questions. Join us in this conversation and join us on this journey of better understanding teaching, learning, and the future of work. So, thank you both.

Jim Bruner: [00:46:31] Thank you.

Robin Hilsmeier: [00:46:31] Thank you for having us.

Annalies Corbin: [00:46:35] 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.