183. Transforming Education with an Eye For Sustainability with Trevor Soponis

Dr. Trevor Soponis: [00:00:00] We're actually doing job training. The purpose of this is so that students can start their own ocean farms immediately upon graduation, or they can enter the University of Alaska Fish Tech program or go to a four-year degree program. But we need to actually have learning opportunities where students are impacting the world right now.

Annalies Corbin: [00:00:24] Welcome to Learning Unboxed, a conversation about teaching, learning, and the future of work. I'm your host and Chief Goddess of the PAST Foundation, Annalies Corbin. We know the current model for education is obsolete. It was designed to create fleets of assembly line workers, not the thinkers and problem solvers needed today. We've seen the innovations that are possible within education, and it's our goal to leave the box behind and reimagine what education can look like in your own backyard.

Welcome to today's episode of Learning Unboxed. As always, super excited about the conversations that we get to have with innovators in the world of education. And today is no different. Today, we're going to have a conversation with Dr. Trevor Soponis, who is the founder of the Sustainable Learning Projects.

And Dr. Soponis is a lifelong education professional with extensive experience in leading transformative education projects involving schools, district state, and university partners. His collaborative approach focuses on implementing improvement cycles by establishing a shared vision, identifying best practices from research and supporting people as they implement changes and utilizing data to track project impact. So Trevor, welcome to the program.

Dr. Trevor Soponis: [00:01:43] Annalies, it's a pleasure to be here. I really appreciate the work that you do with your foundation and really appreciate this podcast, so it's a pleasure to be here.

Annalies Corbin: [00:01:50] Absolutely. I'm super excited to dig in. So especially because it's not every day that I get to speak with a fellow founder. And, you know, founders are unique out there in the world, if you will, especially as it relates to the work that we do, the load that we carry. So I'm super curious. I want to start with what were you thinking?

So tell us about, seriously, it's a lot of work to be a founder. And so I truly, truly appreciate that. But I do really want to start with why the Sustainable Learning Projects? Why this thing? Of all the things that you could have gone out in the world with your PhD and your work and education, why this thing?

Dr. Trevor Soponis: [00:02:38] You know, and this is from listening to your podcast, something that I hope would resonate and I think it will, is just that after spending 20 years in schools, students and teachers and administrators are not engaging in the work and the learning that they should be or could be. And after

spending 20 years in schools, you know, what I mostly tell people is it's a deeply uninspiring place to be.

A lot of the time, for our teachers, you know, the retention crisis is getting worse and worse. I've been a part of a number of projects. You know, I work with schools where they'll have a science position open for an entire year and get one applicant. So particularly for the high need subject areas, you just don't have teachers for students.

When you look at, for instance, one of the Yale studies, you know, most students describe their experience there as being disengaged, being boring and just not relevant. The relevancy gap between what we're actually having students do and what students want to do is widening by the day.

And then when you have the enormous impact of AI and ChatGPT-4 now of just what happened in the past few weeks, there really is just a sense of what are we doing and what are we asking students to do. And so I tried to insert myself into that space and say, we can actually have students do meaningful work right now.

Annalies Corbin: [00:04:09] Absolutely. And that's the reason I was so excited to have this conversation. You know, I realized, oh my gosh, this is just going to be perfect synergy in that space. You know, I agree with you 100 percent. I always ask folks, you know, as they're getting ready to start their transformative process, you know, let's step back from this and really try to figure out what is it that we are preparing kids for. And let's use that as one of the guiding principles of the reason we're going down this road.

And I agree with you, student engagement, teacher engagement, community engagement. Even our industry partners in some communities, right, that engagement element is a thing that we absolutely have to spend time thinking about and working on. And we can, which is one of the reasons I really love the work that you're doing because you have students and thereby teachers in schools, right, tackling and trying to solve real world, meaningful things that matter to them.

So let's talk a little bit about that. So we understand the why, but now let's talk about the what. So what exactly does the sustainability, sorry, project, I'm tongue tied here. What does it do and how?

Dr. Trevor Soponis: [00:05:23] So I'm going to describe two projects today. And I'm going to start with the work that I'm doing up in Alaska. So about five years ago, I stepped off a float plane onto a small island in Southeast Alaska. And in that way, at the time, I was a literacy consultant trying to help just literacy across the district. And I looked to my left, I looked to my right, and I said to the principal, I said, do you grow seaweed? And they said, no, but we're thinking about it.

And so what has happened over the last five years is that I've collaborated with the district in Alaska to rewrite their biology curriculum into a two-year marine biology curriculum where we actually grow seaweed and shellfish. Ultimately, it's really a demonstration farm is what we're operating, but there's enough to actually eat some.

And I actually got back about three days ago from my most recent trip. And we have 1000 oysters in the water that are coming up on the time of being able to harvest. And so one of the units that they're going to do is kind of an oyster festival/mariculture summit where they engage with the community, which is a traditional salmon and herring fishing community, and saying this is an honest economic opportunity that we can take advantage of right now. And here is the biology behind it. And here's what we need to do as a community.

And so it's really been an exciting adventure where we're in year three of kelp production. We've switched species already from bull kelp to sugar kelp. And we have, as I mentioned, over a thousand oysters in the

water. We're talking -- we have a ten-year plan, and there are a number of other species that we're doing, but we're looking for community partners. So they have some gooey duck beds, they have some sea cucumbers.

And so there are a lot of different directions that we can go. But this is really about embedding a place-based, project-based learning experience for students so that they can actually, you know, when 60 percent of the community is involved in the fishing business, it makes sense to me to actually have some of the curriculum be about fishing.

Annalies Corbin: [00:07:51] A hundred percent. And so which island?

Dr. Trevor Soponis: [00:07:54] This is on Annette Island in Southeast Alaska. So it's interestingly the only native Alaskan reservation in the State of Alaska. And there's really some fascinating history that I've been able to learn along the way. And so part of that is, is collaboration with the Metlakatla Indian community, the tribal council there, and really trying to make Metlakatla into a hub of this burgeoning seaweed industry in Alaska.

Annalies Corbin: [00:08:23] Yeah, I was suspicious that that's where you were talking about. So I worked in Alaska for four years as well, out in the islands. And so as you were talking about it, I'm pretty sure I know which island we're talking about here, so that's super exciting. So because I do know that area so well, we're going to dig in a little bit on that one.

So because that project, like many of the projects that you're working on and I'm excited that we get to talk about more than one on the program today. That's fabulous. But one of my questions was really going to be okay, so that project's working fabulously there. It's doing incredible things. It is a demonstration. You're early going. I just want to be really clear about that.

But ultimately, that project has the potential to scale. And because that is not the only community, right, that ultimately in that region could benefit from some of those very same program elements. And in fact, in the college structure in Alaska, there are at least two other institutions that haven't carried that program as part of their main line educational system. And as Alaska is a middle college state, there are opportunities for the middle college regions and programs across the state ultimately to be able to adapt potentially and scale that.

So how do you think about the question of taking those incredibly innovative programs? And it seems like it's absolutely amazing. It would be fun to be on the inside of. How do you scale that? Because is a question I ask of programs all the time. Scale is a really big ultimate, important sort of question. How do you get there?

Dr. Trevor Soponis: [00:10:15] I'm going to take a step back because what I believe, so we've talked about what's needed in education or I should say we talked about what the challenges are. And so I think what's needed is we need models. We need actual models of existing programs that work, that are student-centered, that are inquiry-based, that are project-based, that do have tangible outcomes.

So right now, for this, the Project Ocean Harvest, which I call it, I wanted to get a proof of concept that I could go into a district, collaborate with the school and the wider community and then have something that existed outside. So we actually have, you know, there is a designated harbor that the school has and that we can consistently maintain and check on kind of our seaweed crops and then check on our shellfish crops.

And so to have that as an existing model now, how to scale that is a bigger and more difficult challenge. I think the first and foremost thing is you need to collect data on the success of the model. And I do think, you know, this might be veering in a different direction, but I think what we need to start doing is actually collecting data

that matters to us.

So we need to collect teacher and student satisfaction and retention data when we're looking at, you know, one of the things that I just don't think many people realize is, you know, we say, oh, STEM is really important. Most of the science teachers that I know have three to six preps that they're teaching, right? No one outside of education really understand what that means. What that means is that they're teaching anywhere from three to six different classes in the secondary level from 7th to 12th grade.

And if you understand what that workload actually looks like, we need both, I would say as a foundation, as nonprofits, as organizations, we need to provide curriculum that is readily accessible with the professional development behind it in order to make their life easier. We need to lessen the workload on teachers, and we're not doing that at scale at all.

And so to answer your question, what we need to do is demonstrate that there are positive student and teacher outcomes out of this and then demonstrate that it's also a reduction in your workload. Right? And then help with the with the community engagement, help with the final projects, help with the grading, the assessment. Just really help at every level. And I think once you build out that ecosystem, models like this will become more impossible. Excuse me. It will become more possible.

Annalies Corbin: [00:13:05] Yeah. No, absolutely. And we see a lot of the very same things. So but again, like I said, that's always the question that comes up. We do a lot of pilots collectively, and I'm using the WII and the big giant sense, right? We collectively, in the world of education, we pilot things frequently. But then I think, to your point, we often will pilot something and A, we are not collecting the right data along the way.

So we get to the end and we're not really sure what we learned, what worked, what didn't work. And then we don't have a clue because oftentimes those pilots don't come with a plan that says, if successful, we can in fact scale. And we should, because to your point, this is this is engaging. It's making our educators lives a lot easier. It's a meaningful sort of impactful opportunity.

One of the things I love about the Sustainable Learning Projects that you're working on is the fact that not only are you working specifically on the educators and the students experience, but more importantly, you're doing something positive for the Earth. And that's a fabulous thing too through all of these components. I like that element.

Dr. Trevor Soponis: [00:14:12] Let me just dive in right there, because I think that's really one of -- when we talk about the relevancy gap for students, I'm able to say we're going to produce, and the students are going to produce 4,000 pounds of food. Right now, not later. This is no longer preparatory for something else, right?

We have so many climate change educations where we don't actually have change at the local level. Right. It's just as if it's this fantasy that if they learn that LED light bulbs are better than halogen, that when they become a buyer for a company in 20 years, then that knowledge will kick in.

Rather than saying, hey, why don't we get our school building to net zero by next year and see if the students can do it, right? And having that meaningful learning experience by actually impacting the world around them and making it a better place in a bunch of different ways, which the Marine, you know, an actual mariculture farm system is able to say, we're able to sequester carbon. We're able to actually produce food. We're actually reducing transportation miles for the food that it's replacing. We're actually doing job training.

You know, the purpose of this is so that students can start their own ocean farms immediately upon

graduation, or they can enter the University of Alaska Fish Tech program or go to a four-year degree program. But we need to actually have learning opportunities where students are impacting the world right now.

Annalies Corbin: [00:15:47] Yeah, I completely agree. That's the same philosophy that we all ultimately advocate for and utilize as well. So and what we know is that when you task students that way, they will rise to the occasion. They love it, right? They're deeply, deeply engaged in what's going on. They ask questions well beyond what was necessarily anticipated or even intended oftentimes in those programs. And so that's when you know that you've got the win tied to the work that's happening. So I appreciate that very much.

So let's then talk about sort of the next piece, I guess, if you will, when I sort of think about the opportunity here. And so what does the opportunity look like if you think about the industry piece in these spaces, right? Because that's the other thing that I appreciate about the model that you're working through is that there are not just abstract but meaningful and tangible industry ties. And that's really, really critically important as we think about opportunity for our learners moving forward.

Dr. Trevor Soponis: [00:16:59] Absolutely. So to give you a little bit of context, I believe it was the Alaskan governor about three, four or five years ago said. In 10 years, we need seaweed to be a hundred million industry. And so there is institutional push in order to say -- I mean so far there really are no drawbacks, right. It sequesters carbon. It is a cheap source of vitally packed with nutrients, food, foodstuffs. There's both immediate consumption then there's secondary levels of consumption from ice cream to cosmetics. It's really just a win-win. It's in the shoulder season between the existing fishing seasons. There's just very few drawbacks to this.

And the question then becomes, okay, well, how are we training students to do that? We want them to be in this industry. We say that this is going to be a green economy. Well, how are they actually going to be doing that? And so this provides an avenue for that.

Additionally, we partner with the Alaskan Mariculture Association. One of their members is part of the Tribal Council. And so that's where the partnership comes in of saying here's a good example. There are 10 commercially approved species of seaweed to be grown. The Alaska Fish and Wildlife has said, you know, you can grow these 10. Only three of them are currently being grown because there's not a proof of concept for the other 7/10.

And what you're actually asking the local farmer to do is, hey, do you want to spend $20,000 and see if the seaweed happens to grow? No one's really doing that, particularly when it's mostly a Mom-and-Pop operation besides a handful of heavy hitters. But what we want to do is say, hey, we'll do that, right? We have a demonstration farm. And we have a whole group of students that will be able to say, you know, we'll seed 500 yards of this and put it out there and measure it and tell you how fast it's growing. What is the ultimate kind of growth rate? Are we getting, you know, a foot to two foot or are we getting 6 to 10 feet, right? Or there's really the magnitude of scale really matters.

This is the work that students should be doing, right? Meaningful work that will directly tie in to both their livelihood and then connecting them to the larger community of saying, oh my goodness, we were able to go black seaweed, here's the data. They should be able to present that at research conference and understand this would change the economy of Alaska overnight if we were able to start commercially growing black seaweed. So it's really just grounding that in both the community, the community organizations in this vision for a green economy and giving students the opportunity to do the actual work.

Annalies Corbin: [00:19:50] Yeah. And I love that very much because kids thrive in that environment, and they can do all of this stuff. That's the other thing. I'm always stunned when I hear people talk about, well, but this is what we do in 11th grade. Well, who cares about 11th grade? These kids are capable of so much more than the current K-12 system assumes that they can do. And when we really, really embrace that with them, they flourish. So I appreciate that very much.

Which one of the other projects -- there are several on here that I find really super fascinating that I know you wanted to talk about too. What's the second one that you want to dig into a little bit here?

Dr. Trevor Soponis: [00:20:28] The second one is called the Student Voice Project. And so as I often say, school is the last place where we pretend that the Internet doesn't exist. And so rather than --.

Annalies Corbin: [00:20:39] I love that by the way.

Dr. Trevor Soponis: [00:20:40] -- approaching our educational lives with this, I wanted to create a digital publication. So just to give you a little background, I was a high school teacher in Queens, New York, at Middle College High School, affiliated with LaGuardia Community College. And we ran an uncensored student newspaper. So three times a semester, students were able to pick the topic that they wanted, present that information in the format that they wanted, right. They said, you have one page, two page. If you want a four page spread, knock yourself out. And then instituting kind of the journalistic ideals of interviewing and taking your own photos and a lot of that.

And three times a semester, we put out a publication that was printed out in hardcopy form, and all 500 copies were made and handed out to students. And then during our advisory periods, as part of kind of our social emotional learning and support structure, all the students and all the teachers would read the student work. So that was the foundation for this.

And so I updated it for the 21st century and said, what would it be like for students to, A, have a public demonstration of learning that was out in the world on the Internet because it does, in fact, exist? And then secondly, what would it be like if there was a cohort of classes doing that together that were able to read each other's work and comment on each other's work?

And so the Student Voice Network is in operation right now, the studentvoicenetwork.com. And it does represent student work right now, right here. And it follows those principles of saying students, what is it that you want to write about? What is it that you want to create? You know, we can mock student's desire to be a YouTube creator as the number one kind of career desire that students have. Or we can say, interesting, let's see if you can do it, right. What would you write about? What would you create?

And so we have podcasts, we have original artwork. We have a student -- I'll never forget this. A student wrote about him starting his own business as a car detailer, right? And he said, here's how I started. Here's my advertising and really just wrote a meaningful personal narrative around that. We had some oral histories presented where they interviewed community members.

One of my favorite ones was a friend down in Texas, wrote an 8000-word on the history of animation of the last 30 years and the way in which the drawing styles have changed. And he told his teacher, you know, no one ever asked me what I wanted to write about. And that was a 16-year-old student.

So we can double down on ignoring students. We can double down on giving students no agency in what they're studying, when they're studying it, or how they're studying it. Or we can provide different models and

see what the outcomes are. And so the outcomes that we've had in this is that we have students pocketed in classrooms all over the country talking, engaging, and reading each other's work so that their content becomes the content of the class.

Annalies Corbin: [00:23:48] I love that. I'm super curious, just imagining folks listening to that and you're going to have the folks that are going to say, oh my gosh, that could get really out of hand really fast. So let's acknowledge that and say, but really, I mean for those who've really functioned in a project, we really prefer a problem-based environment. What we know is that the more you sort of engage in that space, the environment itself really tends to self-regulate.

But it can be scary for teachers the first time to give students that voice and that agency. It seems to me that this is a really intriguing way for them to be able to sort of step into that space. But what do you tell that reluctant teacher or school that says, oh, no, no, no, there is no way we could make space for that?

Dr. Trevor Soponis: [00:24:41] It's a good question. The first is, is that there are design elements into this. So for the student work to get published, the teacher basically has to press the confirm button. Right. So they're always in charge. There's never -- students do not have the power to basically put anything up whenever they want. So it basically enters a queue. The students say, here's my article, here's my podcast, here's my original art. You know, here it is. And they submit it to them. The teachers review it just as they would, right? This can be tied to the grade if they want or not. You know, I stay hands off in that approach.

What I'm trying to do is provide a meaningful and authentic outlet for student work when none exists. So, A, the short answer is there are design elements. You'll always have control over it. And if something comes up, you can remove that student work. I advocate against that strongly.

And the second part is I guess I would just ask parents and educators, can we? Where is the space? You know, it's so funny. I remember when I started out originally, I was like, you know, we need to change all schools. And I still believe that. But right now, what I want to ask is in a district of 100,000 kids, could I have one high school with 100 kids? Is your model that vulnerable that you need or so successful that you don't believe 100 students would benefit from learning in a different way?

You know, that's where I'm at, where it's just and it's so -- I live in Portland. There are nine comprehensive high schools. And unless you're failing out, there's no other alternatives. Right. That doesn't make a lot of sense to me. Based on what we know from the research around student engagement and just everything else, it doesn't make sense. So right now, I think we want these models to come up and exist.

And then in individual districts, can we just say, hey, great, you know, you're going to -- this is the hill that you're going to die on that we should continue teaching the Pythagorean theorem, you know, on the third Tuesday in October. And then we're going to test it a month later and hope that the students were in attendance and hope that they cared and hope that the first-year teacher was correct on the pacing guide. Like, knock yourself out. We've been doing it for a hundred years. And all I'm asking is that can we have some alternative models that students opt into? That's what I'm hoping for as we move forward.

Annalies Corbin: [00:27:23] Yeah. Yeah. And I think that lots of folks are hoping for that with you. Right? You know, when I think about the collective set of people that I have the opportunity to talk to, just incredible folks that are doing just really cool and amazing things. So many synergies in this space. And I hear this frequently. And certainly, in PAST, we absolutely live that exact same sort of trajectory that you're hoping for.

You know, I always want to be super mindful on this program of recognizing that folks are out there listening

and thinking, oh, well, this is really cool. I love what Trevor is doing. How do I get what Trevor is doing into my own classroom or into my own school? So I'd like to sort of close around thinking about that. And then I have one last question for you. So how do folks take what you're talking about and build it into their own work? What would you say to somebody who asks you that?

Dr. Trevor Soponis: [00:28:22] Number one, reach out to me directly, right. That's part of the reason that I set up this company is because I'm looking for partners, too, who get it, right. There's a certain element, you know, your prior question was basically, how do you convince people? And there's a part of me that wants to say, you know what, if I need to convince them that they're not there yet, they're not ready for the ride. But if you understand what I'm saying and this resonates, reach out directly and then we can obviously collaborate in that way.

But more generally, I would ask just some of the basic questions. When are you providing opportunities for student voice and choice in your learning, right? I think one of the funniest things that I noticed is that there has been a passion in the most recent years to develop a portrait of a graduate at districts across the country. And when I look at those, you know, what do they often say? We want our students to be independent learners.

And I say, great. At what point do they do that, right? Go interview, you know, survey with a two-question survey, do you think our students are independent learners? I mean, that's one of the pandemic hangovers that every teacher is doing with. We're just not engaged in rigor right now in most classrooms. Students have forgotten and fallen out of the habit of good work.

But I also think it's related to the fact that they realize that so much of this is busy work. I think that parents and students saw behind the veil of the wizard and realized that there's not a whole lot going on there. Right. They were able to see the grades that were, these seem to be more arbitrary than what I once thought. And then the parents saw the work. This is what they're asking students to do, right?

New York City just banned ChatGPT-4. Do you think there's going to be any occupation that doesn't engage with AI in the next 20 years? I don't. And what is that going to look like? How are we actively disadvantaging our students from what the world is going to look like? And as always, the --

Annalies Corbin: [00:30:38] And what a miss teaching opportunity, right? I mean, seriously, that's about as real world as it gets. Yeah, you're right. Yeah.

Dr. Trevor Soponis: [00:30:46] Which was -- so I'm not sure I fully answered the question, but just ask the questions around how do you -- what are the things that actually mean something to you and then how are you doing it? What are the logic models that allows you to think that they're going to be independent, that allows you to think they're going to be self-directed, that allows you to think that they're going to direct their own inquiry and come to meaningful products. Right. What are the students creating that is changing their world and the world around them right now? Not later, right now.

Annalies Corbin: [00:31:17] Absolutely. And they will engage with you if you ask them that question 100 percent. So last quick question then for you. So what has been one of your favorite ahas on this journey and the work that you're engaging in with these projects? You probably get to see a lot of things that you weren't necessarily expecting. And so it's always fun just to sort of hear along one of these project journeys, what did you see from a student that really kind of surprised you? It was one of those, aha, that's super cool or I never really thought of that sort of moment that you could share out with us.

Dr. Trevor Soponis: [00:31:56] Well, I'll start by sharing my own personal aha moment. Last week, I was in Alaska, and I got to open up a cage as part of the shaking. I got to shake oysters. And I was able to open up a oyster cage, pop an oyster open and eat it, which was four years in the making, right, for that to be an opportunity. And then having students being involved in the measuring, involved in the seeding of the kelp and having the students out on the water and doing real work was just a deeply meaningful experience for me.

And again, I think that moment when a student said to me or said to another teacher, you know, no one's ever asked me what I wanted to write about, and just to have that opportunity to say we need to listen and respond authentically, meaningfully to our students who are saying this isn't working for me and say, great, what could we do? Right. Where are you in your education? And beginning to provide meaningful learning models with authentic student agency is a place where I'm happy to be.

Annalies Corbin: [00:33:29] Yeah, absolutely. I agree with you. Well, Trevor, thank you very much for making time in your day to chat with us, share the work that you're engaged in. It's very exciting and I'm hoping that we can follow along for some time moving forward. So we greatly appreciate you making time for us today and joining us. So thanks so much.

Dr. Trevor Soponis: [00:33:50] Annalies, thank you so much for giving me the opportunity to share. And again, thank you so much for the work that you're doing. I really see us as colleagues in similar arms pursuing the same passions. And so we need to continue to push the envelope and ask some of the basic questions that points out so many of the blind spots that exist. So thank you again for all the work you're doing.

Annalies Corbin: [00:34:13] Oh, you're very welcome. It's been a pleasure. Thanks.

Thank you for joining us, for Learning Unboxed, 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 at Annalies Corbin and join me next time as we stand up, step back, and lean in to reimagine education.