

The SRI Homeroom – Episode 7

[Sounds of a students talking in a high school hallway]

[A school bell rings]

[A digital chime rings three times, with progressively higher pitch]

Kori Hamilton Biagas:

Welcome to The SRI Homeroom. Today, how can we improve outcomes for students of all ages?

[Theme music fades in]

Louise Yarnall:

Can you make a contribution that could actually put someone on the path to a completely new life and a completely new sense of belonging and confidence? Absolutely. Even small gestures can make a huge difference.

Kori Hamilton Biagas:

Postsecondary education and beyond, today, on The SRI Homeroom. Welcome in.

[Theme music fades out]

Hello and welcome to The SRI Homeroom. I'm Kori Hamilton Biagas, and today I'm so happy to be joined by Louise Yarnall, an incredible research social scientist focused on career development and postsecondary education. Welcome, Louise.

Louise Yarnall:

Oh, thank you, Kori. Thank you for having me, and I'm really looking forward to talking with you.

Kori Hamilton Biagas:

I'm excited about our conversation because you are... I don't know. You are a multifaceted researcher and technical assistance provider, and practitioner, and writer, and, and, and. You do so much with our organization, both kind of behind the scenes that some people may not even recognize, and in front of the scenes and leading projects and things like that. So can you kind of describe to me or tell me what is a problem you're trying to solve? What is a challenge that you've been grappling with throughout your tenure at SRI? But just your career in general?

Louise Yarnall:

I think the core problem is really lifelong learning. And that has given me an opportunity to work in a lot of different spaces and places because I'm really focused on adults and what happens when you get out of school. We're going to need to keep learning. Things are changing, jobs are changing. And so when you're an adult, you have a lot of responsibilities, you have family responsibilities, you might have to be holding down a full-time job. How do you fit in learning? How do you do that? And there's a lot of friction and it's becoming more and more important for people's economic mobility, and in some cases just survival.

Kori Hamilton Biagas:

To be able to have access to more learning opportunities in a variety of settings. What are some of the settings that you're thinking about when we're talking about adult learning and adult education? Where are some of the spaces that you're working in or supporting to address that need?

Louise Yarnall:

Most of my work has been in community colleges, particularly people who work in, I would call the non-transfer. They're going in there to get a workforce certificate.

Kori Hamilton Biagas:

Yes.

Louise Yarnall:

Also, my work has been in actual places of work. So I've collaborated with some colleagues in the artificial intelligence center to leverage technology to accelerate learning in one way, shape or form. There's never enough time for training and continual professional development. And how do we leverage new technologies too. Especially, it's not just the talk stuff, right? The LinkedIn, you're going to have a PowerPoint. We've also been working with people who are learning crafts, people who are experts at making pieces of metal so smooth, smoother than a machine can make it. You put it under a microscope and it's like bumpy, right? And guess what? The machine can't make it flat enough for auto manufacturing purposes. So you actually have to have a human with a chisel who knows how to do this in a very effective way. And it takes a decade to learn that.

Kori Hamilton Biagas:

That's artistry.

Louise Yarnall:

Right? So how do you use new technologies, for example, to accelerate that learning? So that's another space. And the other space I've worked in is in classrooms, K-12 classrooms, how do you make some more room for children and youth to envision what they want to do for their professional careers? For most of us, it won't be in school. So how do I make some space as a teacher, as a student, as a parent, when my child is so busy trying to do all the homework, when my students are trying to meet all the standards, how do we carve out some space for those students to really try things out, to dream, to reflect, to get a sense of who they could be in their careers? So those are the kinds of spaces I've worked in.

Kori Hamilton Biagas:

And all of the different, I love that you said dream. Because there are so many avenues to get to places and so many options. And we have a tendency of kind of honing in on the Big 10, which is the workforce of you could be a doctor, a lawyer, an engineer, or you can be a police officer, a firefighter, an EMT tech. But there are so many other things that people can do, including education, research. Who even knows what that means?

Louise Yarnall:

Exactly.

Kori Hamilton Biagas:

I'm sure there's not very many people in the fourth grade dreaming of being an education researcher. But how do we create space for them to even know that that's something that's a possibility, is what you're talking about.

Louise Yarnall:

Exactly.

Kori Hamilton Biagas:

Yes.

Louise Yarnall:

And a lot of the jobs out there are being created. I mean, the jobs that we all know now, they're going to be quite different with the infusion of technology. And so we need to stay on our toes. We all do. And every field is being influenced by new technologies and will be changing. That means learning, learning all the time.

Kori Hamilton Biagas:

Yes., Absolutely. Something else I heard you kind of touch on is this focus on skill development, developing craftsmanship and skills that can be applied in a lot of places that don't necessarily require a degree, but give people the opportunity to have upward mobility. I know that here at SRI, [inaudible 00:07:29] has worked on things like that around postsecondary education and the way that different kinds of certificates can help. What other kinds of skill development things are you thinking about and how technology can support different kinds of skill development?

Louise Yarnall:

Yeah, a lot of the skills I'm interested in are from the field of psychology or learning science, and some of them are also what you would call the soft skills.

Kori Hamilton Biagas:

Yes.

Louise Yarnall:

They can be called 21st century, employability. But your ability to work on a team and communicate succinctly and to listen and to pick up on the nonverbal cues, to read the room, to read your workplace, to get a sense of, "Oh, I might be able to help there," or "Maybe I have to stand back now."

All of this dance of collaborating and working with other folks, it's so critical to our success and our ability to move and get a job and to develop social capital, to take advantage of every internship you get. It so matters. And it's not equitably distributed. Some people have more opportunities to develop that confidence, those skills and others just don't. Maybe because of the stress of their environment, the lack of resources, whatever. And so who's going to help when people don't have a fabulous mom or father or whoever it is. It's not, the technology will fill all of those gaps. But I do think there's a way to infuse what we know about learning science into technology tools to help support and build those skills. People can kind of work on it themselves a little bit. That way they're getting kind of a virtual mentor of sorts.

Kori Hamilton Biagas:

So it sounds like A, soft skills are teachable, and B, that one of the areas that you're focused on is leveraging technology to create more opportunity for people to develop those skills, regardless of their backgrounds.

Louise Yarnall:

Correct. And it's also skills, like some of the more obscure skills from learning science, self-directed learning or self-regulated learning. There's a whole rich literature on that. And basically, what is it in a nutshell when someone says to you, you're a really good student, that's what they're kind of saying, that you have all those skills that you go into every lesson with a certain amount of confidence, a sense that you belong. You kind of know what you know, you know what you don't know, and then you map out a game plan, "Okay, I'm going to have to study a little harder on this one," or, "No, I got this." Or "You know what? I can't just read my way out of this. I'm going to have to get a tutor or get some help." That's all what a good student, what we call a good student, does, and that's called self-directed learning, self-regulated learning.

And then you always assess how did that go? And so we are working in the Postsecondary Teaching with Technology Collaborative, a research center supported by the US Department of Education in partnership with Columbia University, the Community College Research Center, and the Achieving the Dream, I call them kind of a community college teacher support network. They really help. And we're working with, I think it's about nine institutions of broad access. They accept most of their students. It's where the workhorses of secondary education. It's where most of us get our bachelor's degrees and our associate's degrees. But anyway, we're trying to work with them because after Covid, a lot of folks discovered, "Hey, online's pretty cool."

Kori Hamilton Biagas:

Look at this.

Louise Yarnall:

Here I am, I'm going to school at my community college and I've got to help out at the house, and I have a couple of kids, and I had a really nasty commute. And now I can take this stuff online. This is great. And then what we discovered is online isn't... not, everybody kind of gets.

Kori Hamilton Biagas:

It's not that straightforward all the time, right?

Louise Yarnall:

The grades started dropping. So we're focused on those really tough classes. Often, those first year math and science classes, they often call them, in my day, they call them the weeder classes, which shows you how friendly everything was.

Kori Hamilton Biagas:

We're going to weed you out of here, these early classes.

Louise Yarnall:

The faculty teaching these classes, a lot of them, part-time faculty, really stretched themselves. They're just trying to cover the content. So how can we use technology, the LMS, the Learning Management System technology where they're offering these courses to put a few little pieces in there that say to students, it signals to students, if nothing else, there's a way that I'm going to support you to succeed in this class. I'm going to give you a little video that's going to tell you something about you've got this, take your time, manage your time. We'll even check in with you now, and then we'll give you a few prompts to reflect before a lesson, after, some homework. How did that go? What's your game plan? Just things like that. So we're testing out how that's working, but that's an example. This doesn't have to be a super elaborate form, a technology, just a very precise and thoughtful.

Kori Hamilton Biagas:

Right

Louise Yarnall:

[inaudible 00:13:31] of the technology.

Kori Hamilton Biagas:

Yeah. Filling in some of those spaces where in a traditional classroom structure, there may be a teacher's assistant or there may be the faculty member who's doing that and saying, "Hey, I noticed you were struggling, and here is what I can do to support you." But in having that space, because of the technology, because of the virtual aspect or possibly the asynchronous aspect of the course, having the technology kind of fills in that gap and provides the prompts and the encouragement and the support. Am I hearing that correctly?

Louise Yarnall:

Exactly. Exactly.

Kori Hamilton Biagas:

That sounds really fascinating.

Louise Yarnall:

A little different from how we sometimes think of technology as kind of antisocial or taking us away from people. And I think that that is one of the values in my work. I've always been interested in using technology in a kind of humanistic way, in a thoughtful way.

Kori Hamilton Biagas:

And this isn't about replacing people. This is really about supporting the students in a targeted, specific, customized type way where we're saying, look, we're recognizing that you didn't necessarily just come from high school and a note-taking class that you may be in the thralls of your whole life and you're trying to get a certificate so that you can advance in your career path. And so let's remind you of some of the things that you need to know in order to be a successful student.

Louise Yarnall:

Exactly.

Kori Hamilton Biagas:

And let's build some of those skills if you didn't get them in your other experience. That really sounds fascinating.

Louise Yarnall:

Yeah. That's why I really, when I was a career changer, when I went to grad school in the '90s and I was introduced to what we call learning science, it was like someone had opened up a treasure trove for me. And that's part of how I see my work at SRI. Whoever I'm collaborating with, I will go into the well of learning science. There are many, many wonderful ideas and thoughts there that are useful in strategies. And then I work with teams to try to... that's how we humanize the technology. So it can really help all of us do better, whether it's the learners or the mentors and the educators. They need some help too.

Kori Hamilton Biagas:

You mentioned with this Postsecondary Teaching with Technology Collaborative, you are working with a variety of broad access institutions to test some of these things out. So what does that mean?

Louise Yarnall:

What was [inaudible 00:16:31] that mean?

Kori Hamilton Biagas:

What does that look like, testing these things out?

Louise Yarnall:

It's a scientific test, right? We have a treatment group that-

Kori Hamilton Biagas:

Are there beakers and green fluid, and is there smoke involved with this testing? I want to know more about that.

Louise Yarnall:

No, I wish. No, that sounds like fun, Kori. I wish we did. No, we have just, again, based on the theories and the evidence of what seems to have worked along these lines in other higher education classrooms, I led a review of the literature, and I had a great team that helped me with that. It's a lot of reading and work and summarizing and synthesizing. And so that became a bit of our starting foundation. And then a group of thoughtful instructional designers and researchers got together and said, "Well, knowing what we know about the faculty we're trying to support, and the students we're trying to help, what can we design?" And so we designed just three starting ideas at this point, and we're putting them into classes we'll have often, not always. But we'll usually have the same teacher in the same term, teaching two different classes, one with this small intervention, or two, and one without.

Kori Hamilton Biagas:

I see.

Louise Yarnall:

Sometimes we'll have the same teacher, but over a couple of terms, but the same subject matter, same class. But in any case, that's the experimental design part of it. But one of the things we're giving them is a video. We give them a set of videos that address things like a lot of folks think, "Oh, my IQ is fixed. Someone gave me a test when I was five years old. I either got into the gifted program or I didn't, and that's it. That's my life in a nutshell." And it's like, no. No, actually your intelligence is malleable, that means it can change. And it's like a muscle. And so we present these ideas from the scholar, Carol Dweck, Growth Mindset, he was associated with that's from learning science. And we just give them a video on that. We have other videos too on best Ways to space practice is another term. Trying to learn something. Instead of just grinding away burning the midnight oil, we all did that.

Kori Hamilton Biagas:

Pulling the all-nighters.

Louise Yarnall:

That might explain some of the grades I got.

Kori Hamilton Biagas:

Exactly.

Louise Yarnall:

But no, instead, just think of Ebbinghaus. This is another researcher, I think from Europe, years and years ago. This is a long time, this is an old idea, but it just hasn't gotten out there. Just wait until you're about to forget and then go back and practice. So these are things we talk about. And we have found already in interviews with our participating students, we're starting to look at some of their data and surveys, how they report, how they're thinking about their skills now and their study skills and their self-regulated learning skills. We're seeing some signals that they like this, this is helpful. Thanks for telling me, and I am applying this.

And then we also have these other things called prompts that go, again, through the LMS, usually. You'll be doing your assignments, and then here's your check-in. And the check-in could come before you get the homework, or just as you're getting it. Okay, as you look over this assignment, what are you thinking? Are you set? Do you have everything you need? Just a little check, we have a few questions, very short answer. And same thing after the assignment's done, how did that feel? Did you feel like it went well? Did you have all the resources you needed? What will you do differently next time? That kind of thing. So those prompts happen a few times in the term.

And then the final thing is this kind of work can be really... studying online can be kind of lonely. And so having support and someone you can talk to, whether it's the instructor or fellow student, is a big part of succeeding in anything in life, not just school. So we want to provide some spaces and activities, whether it's a... we suggest like three things, a team project, a sort of get to know each other. I call it a watering hole, I don't know if that's what they call it. But it's just, if you've got questions, it's a safe space, you can put up a flare and ask for help.

Kori Hamilton Biagas:

SOS, yes.

Louise Yarnall:

Like, please help me. Anyone else, do you have a good resource you can share with me? That kind of thing. And so those are the three that we're trying out in different combinations and different classes. And we'll be studying things like how engaged they are. We're looking at the LMS data, and we'll be looking at their surveys and how they're reporting pre-post their use of these skills and mindsets.

Kori Hamilton Biagas:

So I know this isn't how we started, but it really sounds like you're in the business of shifting mindsets and changing behavior.

Louise Yarnall:

Indeed, yes.

Kori Hamilton Biagas:

Yeah. Because some of what you said, it just made me think that the cues and the checks are also about elevating people's awareness of those things. And in having more awareness and recognizing those aspects, those skills, those thought prompts, you begin to use them more because now they're on your radar. And having them on your radars, how you begin to change your behavior, and it shifts how you are engaging with things. So I knew when we started that you were extraordinary, but I didn't realize that you really, a core part of your work is really about behavior change and shifting mindsets for adult learners.

Louise Yarnall:

Yeah, I think that's really well put. Thank you.

In my ideal fantasy of the world, we would all have a few really wonderful mentors, people who just get us and get what we need and know what to say at the right time, in the right place, in the right way, and connect us with the opportunities that will really be self-fulfilling and helpful. I don't know about you, but I could probably count on one hand, maybe a couple fingers when I've had that behind a magic happen. I'm thinking of a grandmother and I'm thinking of a former colleague, a late colleague. These were amazing moments, but we need more of them. And we're all so pressed, we're all running around. There's a lot of mistrust and misunderstanding out there, unfortunately. And so as much as I want it to be that, I do think that it might be unrealistic to hope for that.

Kori Hamilton Biagas:

Today, maybe in your lifetime, but maybe it's realistic to hope for that for my son's generation of people, he's three years old.

Louise Yarnall:

But it turns out a lot of these soft skills, for example, that's another project I'm working on with the National Science Foundation, Advanced Technological Education Program called Project Goals. And I've been co-designing with career technical education instructors, how to weave into those super technical courses, opportunities for students to reflect on how am I communicating, how am I coming across, how am I working with the team, and am I coming at this with a positive problem solving mindset and so forth. It's not as easy as you might think to do.

Kori Hamilton Biagas:

It doesn't sound easy.

Louise Yarnall:

No, it's not. And so what we're realizing, if you want to build these relationships, we all can use some help and some coaching and tools. And again, even some little technologies that might coach us through it. Anything that can help you get sharper on those things, I think, is what I'm trying to contribute to that toolkit.

Kori Hamilton Biagas:

And so are these tools designed to support only students or also the faculty and staff members? Because I would surmise that their mindsets have to shift also in order to support and integrate these kinds of technologies and even opportunities for students into their syllabi and into their courses.

Louise Yarnall:

That's exactly right. And for both the, we call it the Collab, the Postsecondary Teaching and Technology Collaborative, we just call it the Collab. That's easier. And then Project Goals, and that's pretty short and sweet. But for both of them, to really wrap up our work, we want to make sure we have what you can call it instructional model, you can call it a curriculum, tools, toolkits, strategies. We want them packaged, but we also want people to have a way to explore them, try them out, get a community who can support you as you learn. So for anything you're doing with faculty, with teachers, with parents, with supervisors, hiring managers, we're all not naturally born being teachers and mentors. And again, I do think that's a teachable set of skills. And so we want to make sure we provide the tools and the supports. And sometimes it takes a little bit of, you can do this.

Kori Hamilton Biagas:

Encouragement.

Louise Yarnall:

Yeah. A lot of encouragement. I think there's a wall of history and failure and doubt and hurt, and people just saying, "Hey, what can I do?" We all can make a difference. Can we solve everything and go from zero to the perfect dream of what we would like for every person we know? No, that's not... but can you make a contribution that could actually put someone on the path to a completely new life and a completely new sense of belonging and confidence, and I can do this other thing, chasing their dreams? Absolutely. Even small gestures can make a huge difference.

Kori Hamilton Biagas:

It's not about changing everyone's life, but if you can impact positively someone's life or a small group of people, that changes their trajectory. You may not even realize it. I'm thinking back to when I was a teacher myself, and there are things that you do to support your students that you do, because that's who you are, that's what you're called to be. But it does something for them that you can't even imagine. And that's what I hear in your work.

Louise Yarnall:

Oh, exactly. Yeah, exactly.

Kori Hamilton Biagas:

What keeps you coming back to doing this work?

Louise Yarnall:

Well, I took a long time to figure out what I wanted to do when I grew up. And back in the day, they had these things called temporary secretaries. When I was in high school, when I was going through college, I worked in almost every possible setting you could imagine, because everyone needed someone to type back in the day and answer the phone.

So I quickly was crossing a lot of things off the list. And so where I wound up is I like to be in a creative, innovative space where people are thinking, what can be? What could the future be like? How could we make it better? And I like it when the problems look pretty thorny, pretty difficult, pretty, oh, we're going to throw our hands up on this one and forget about it. Right? No, that's exactly when you want to get in there.

Kori Hamilton Biagas:

Yes.

Louise Yarnall:

Get a good team, brainstorm, break this thing down, leverage the amazing wealth of research and good thinking and theory that's out there in learning science and other fields too, and just try some things, create some stuff, and try some things. And that part of the work is what is so exciting at SRI. And I've looked around, I've been around, and I got to tell you, there aren't many places that have that feeling about them.

I'm very, very grateful for being able to work in a place that just feels like there's a little bit of an adventure. There's a little bit of a mission, and we're trying things out.

Kori Hamilton Biagas:

And that seems to align with your identity as a lifelong learner too, right?

Louise Yarnall:

Oh, absolutely.

Kori Hamilton Biagas:

Stepping into the thorny bush and finding that sweet spot and calling on your team to help you like, "Here, grab this piece and grab this piece. I found the part we can solve."

Louise Yarnall:

Kind of Apollo 13 a little bit. Yeah, I like that feeling of how are we going to figure this one out? Yeah, yeah. It's a lot of fun.

Kori Hamilton Biagas:

I like that. I really do. That's great. Well, we have come to the close of our conversation, which has been so delightful. I am grateful to have had you on the podcast, Louise. Thank you so much for joining us.

[Theme music fades in]

Louise Yarnall:

Well, thank you for having me, Kori, and guiding me through this process of being interviewed. In a past life, that's what I used to do. I would interview people. And as a researcher, I do a lot of interviewing of people, so it's a little funny to be on the other side of it. So I thank you for helping me feel comfortable.

Kori Hamilton Biagas:

It's been my pleasure. And thank everyone for listening to The SRI Homeroom. We'll talk again soon. Bye.

Thank you for joining us on The SRI Homeroom, produced by SRI Education, a division of SRI. Our guest today was Louise Yarnall, Senior Research Social Scientist with SRI Education. Learn more about Louise and her work in today's show notes.

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[Theme music fades out]