

The SRI Homeroom – Episode 6

[Sounds of 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 do we balance innovation with evidence?

[Theme music fades in]

Rebecca Griffiths:

I don't want to see districts wasting a lot of money on technologies that don't have evidence that they do the things they claim to be able to do. I really want to see technology used well and for good reasons. I want to see districts and educators using technology tools in ways that enhance the students learning experience, that help them get excited about learning.

Kori Hamilton Biagas:

Research, development, and the drive for better outcomes, 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 Rebecca Griffiths, an incredible researcher who focuses on educational innovations and their impact on learning. Welcome Rebecca.

Rebecca Griffiths:

Hi, Kori. It's great to be here.

Kori Hamilton Biagas:

So I want us to just start thinking about and talking about – You do such incredible work at SRI and SRI Education. Your research is diverse. You're engaged in all kinds of R&D work. And so, what is the really big challenge that you, Rebecca, have been working on solving?

Rebecca Griffiths:

I mean, I guess the best way to describe it would be trying to identify ways that educational innovations can improve student learning and experiences and, ultimately, their outcomes. Most of my work uses technology-enabled instructional practices, ranging from using technology innovations that are more cutting edge to ones that are, you know, online learning, which has been around for decades, but people are still trying to figure out how to do it better.

And sometimes we look at ways that different, sort of, models for creating technology-enabled solutions can be transformative. So we have a strand of research on open educational resources, which are kind of anything that's available on the web that is openly licensed and that is freely accessible to students.

And there are a number of affordances of what we call OER that can really lead to improved outcomes for students, reduce some of the stress of having to buy expensive textbook materials, and that's more relevant in the postsecondary sector, and also have the potential to transform the way faculty teach, by liberating them from textbooks.

So, I'm kind of going down into a bit of the weeds here, but those are the kinds of areas that my research has been focused on.

Kori Hamilton Biagas:

And have you been thinking about this in the context of early learning, secondary education, or postsecondary education? Or are you focusing on these innovative practices and that integration all over this, K or pre-K through postsecondary space?

Rebecca Griffiths:

Really all over. I would say most of my work has focused on postsecondary education, just for a variety of contingencies. So when I started working in education, I joined a new organization called Ithaka S+R, which was only focused on postsecondary education. So that is the sector that I got to know first and still do a lot of my work in. But I've also done some projects working in K—12, which I also find incredibly important and meaningful and engaging.

Kori Hamilton Biagas:

So when you're interacting, investigating, researching, working on these innovations or identifying these innovations that can support and improve outcomes for students and can reduce some of the burden that staff and faculty are engaging with, what are some of the main criteria that you're looking for in deciding whether this innovation is something that's worth pursuing, worth supporting, and encouraging educators to integrate into school settings, or if it's something that people should just set aside, because it is one of those new fancy

magic looking things, but the reality is it doesn't have the impact that is promised?

How do you, what are the kind of criteria that you're...

Rebecca Griffiths:

Yeah, that's a great question, for a couple of reasons. One is, I mean, it's often not obvious until you've actually done some research or worked with an intervention or idea to determine what kind of effect it's going to have. I mean, I think I gravitate towards interventions or programs that have a strong theory of change where it's a compelling idea that you kind of can intuitively believe that this thing could make a difference.

Kori Hamilton Biagas:

Do you have an example that comes to mind of something that people might be familiar with? It doesn't have to be something you created.

Rebecca Griffiths:

Yeah, I'm thinking like Khan Academy. It's such an obvious example, but I think Khan Academy is actually one of the first applications that got me really interested in online learning, because, I mean, first of all, Sal Khan is such a compelling speaker, and I've heard him talk about how kids need different ways of learning concepts and, just having access to that repository resources, sort of empowered kids to go and learn things on their own and hear things explained in different ways.

So that was one that, you know, I think just his delivery is obviously great, but I think the concept behind it is also really compelling.

Kori Hamilton Biagas:

Mm-hmm.

Rebecca Griffiths:

And that was one of the very early educational digital learning resources that really took off. And I wanted to touch on why I think that's a great question because we sit in sort of a funny role when we are involved in projects as developers, and researchers, and even evaluators.

Kori Hamilton Biagas:

Mm-hmm.

Rebecca Griffiths:

Because, you know, if we have our evaluation hat on, our job is to be very objective and to determine whether something's being effective and not looking for glimmers of hope and not looking for bright spots, but...

[Laughing]

Rebecca Griffiths:

...really taking a cold hard look at whether or not something is working. When you are a developer, you're more focused on the promise, the potential of an idea, and there are some kinds of interventions or programs that I've been involved with where people can either have a kind of ideological or moral or ethical reason for wanting to promote something.

So open education resources is one of the prime examples of this. I've been working with OER projects for 20 years and most people who work in the OER field are very passionate about open education.

Kori Hamilton Biagas:

Yes.

Rebecca Griffiths:

They're very passionate about the principles behind the movement that all students should have access or all, all people should have access to knowledge, that all people should be participants in the generation of new knowledge. So it's a movement. It's not just an intervention.

Kori Hamilton Biagas:

Right.

Rebecca Griffiths:

So as a researcher, when I started working with the developers in this space, I had to kind of work to maintain my objectivity and –

Kori Hamilton Biagas:

And hold down your enthusiasm?

[Laughing]

Rebecca Griffiths:

Yeah. And not have any preconceived notions about what the impacts would be for students.

Kori Hamilton Biagas:

Right.

Rebecca Griffiths:

You know, the reality is most students couldn't tell you whether they're taking an OER course in college. They can tell you whether they have to pay for their textbooks.

Kori Hamilton Biagas:

Right.

Rebecca Griffiths:

And they're very happy if they didn't, and they can tell you whether they're able to access their course materials online, and they love that, but, you know, the sort of moral driver behind the creation of those materials is a little bit out of scope for them.

Kori Hamilton Biagas:

Right.

Rebecca Griffiths:

So I think that's an instance where maintaining some objectivity is quite important to be able to really get at the truth of what the impacts are for students.

Kori Hamilton Biagas:

Mm-hmm. But it is sometimes hard to take off that developer hat, right, and squash that excitement, the curiosity, the hopefulness?

Rebecca Griffiths:

Yeah, absolutely. In our OER projects, it's been helpful that we've generally had implementation partners and developer partners who are creating the content, who are implementing the program, so we really could play the role of independent evaluator to a greater extent.

Kori Hamilton Biagas:

Mm-hmm.

Rebecca Griffiths:

We have another major program that you're familiar with the Postsecondary Teaching with Technology Collaborative, where the research component of that – it's an R&D center funded by the Department of Education.

Kori Hamilton Biagas:

R&D? What does that mean?

Rebecca Griffiths:

Research and development.

Kori Hamilton Biagas:

Okay.

Rebecca Griffiths:

And so the research, it's really a development and innovation program. We are developing instructional tools and strategies and resources to help faculty in broad-access colleges and universities improve the student experience in online STEM courses.

And, in that case, we really are the developers and we're testing these instructional strategies and resources we're developing and trying to determine if they're making a difference. And so we are kind of spanning those two roles between developer and evaluator, which is challenging. You know, I think the first round of results we got was sort of a mix, but there were some positive things. The second round was a little bit more neutral. And, of course, I think we always as education researchers want to find solutions that are beneficial for kids. We do this work for that reason.

Kori Hamilton Biagas:

Mm-hmm.

Rebecca Griffiths:

But yes, there's definitely a little glimmer, a little hint of disappointment when you get results from something that we've developed, put our heart and sweat into, and find out that it, in some cases, it has disappointing results when it's put out into the real world.

Kori Hamilton Biagas:

Yeah. And it's so encouraging, though, as a lay person, an average person to know that you are going through the process of testing these things. We were talking on another podcast about how we connect our research into practice and some of the challenges that exist in that process, and so what you're describing here sounds like this project has the opportunity – and part of its purpose – is to make those connections, learn from those, and make adjustments.

As they take them into practice and test them out, are these things really working? And I think that that is quite impressive and that level of

understanding of the real experiences of people helps to create products and tools that can be really impactful, which is what you were saying from the beginning. Part of your focus of your work is, “What’s working for kiddos,” whether those kids are in kindergarten or those kids are in college, what is working for them.

So that’s really cool. What other kinds of work are you doing that’s getting at this as well, that is kind of focused in on working with developers or being the developer and connecting the research and practice and development components all together? Are you doing any other work in that space?

Rebecca Griffiths:

So SRI leads the LEARN Network, which is another initiative funded by the U.S. Department of Education’s Institute for Education Sciences. The LEARN Network was stood up to accelerate the adaptation of some projects that have the potential to help students recover from COVID learning loss. So we’re working with a group of projects that had, they were already in existence. They had some evidence of efficacy and the department wanted to see these projects really scale up quickly and to make sure that they are adapted to meet the needs of the moment.

And they wanted to assemble a network support structure around these projects to help them be successful in that work.

Kori Hamilton Biagas:

Mm-hmm.

Rebecca Griffiths:

And the hope is also that, as the network lead, that we can develop a model and some tools and resources that would help other developers, other education researchers design products, solutions, programs, interventions that have the potential to scale from the beginning.

And, as you just alluded to, one of the major factors in designing such interventions or products is really working closely with the communities that those products and programs are intended to serve. So, you know, a lot of researchers, we work in labs, we work in universities, we’re a little bit detached from the communities that we’re designing products to serve.

It can be very easy to go off and to develop a theory of change that’s informed by literature, by learning science. You come up with one of those sort of intuitively compelling ideas and then go off and develop a program or a product, but don’t pay enough attention to the ways in which that product or program would fit into the lives of the intended users.

So what is the problem of practice that this product or intervention is solving for teachers, for school administrators, for students? What is it that would motivate them to want to pick that up, to use it, and to integrate it into their day-to-day work, to get the school district to pay for it, if it involves a license.

Often, researchers don't sort of turn to those questions until later in the development cycle. And at that point, it's kind of hard to go back and make some of the adjustments to a product or program that would be needed for it to really fit into the workflow, the environment of a school district, or to really be fine-tuned to meet the needs of teachers.

So that is a project that's ongoing. We're working closely with four product teams. We are developing a toolkit that will share some of the methodologies that SRI has used with researchers in other sectors, and we're adopting those for the education sector and look forward to sharing those when they become ready.

Kori Hamilton Biagas:

That sounds very exciting. And I heard a couple of phrases that I want us to come back to, just to clarify what we're talking about. Theory of change, which is like that great idea and sometimes the researchers and developers are just like, "We've solved it! And we're going to stay over here in our corner and we're going to continue to solve this problem." But it's not addressing the problem of practice, which is, I'm paraphrasing, the actual need that a practitioner is facing or someone who's in an education setting, the actual thing that they're struggling with.

This really great idea may not be aligning or matching up or meeting the need of that practitioner.

Rebecca Griffiths:

Mm-hmm.

Kori Hamilton Biagas:

And so part of what you're working on with The LEARN Network, which is Leveraging Evidence to Accelerate Recovery Nationwide – one piece is, like, bridging that gap and helping developers think about connecting their theory of change to the problem of practice much earlier in their development process.

Rebecca Griffiths:

Mm-hmm.

Kori Hamilton Biagas:

Am I capturing that correctly?

Rebecca Griffiths:

Yes. That is very well put.

Kori Hamilton Biagas:

Wow. That sounds exciting. And you have a group of developers that you're working with from across the nation that have been, prior to working with you, developing products, and now your team is supporting them in scaling them or advancing that timeframe to get more students engaging with those products.

Rebecca Griffiths:

Yeah. So we are supporting these product teams – we call them product teams, even though I would say that what they've developed does not all fit neatly into the term “product,” but we're using that term loosely to cover a range of interventions, programs, sort of methods of teaching – and we are working with them in a number of ways.

And I think one of the most important things we're trying to do is just to help them ask the right questions –

Kori Hamilton Biagas:

Mm-hmm.

Rebecca Griffiths:

of the right people to really understand how the products they're developing will fit into the context of the school districts and meet the criteria that they use to select solutions for the problems they're trying to solve, and how to communicate about them.

So I think one interesting dimension of this program is that the grants allowed for the developers to do what we would sort of think of as market research, to do this kind of outreach to school districts, to decision-makers in different roles within districts and even at the state level to understand who is making decisions that are relevant for their projects, what their criteria are, who's involved in that process, how that process works, so that when they put these things out into the world, they know who they're speaking to and what those people really care about. And most research grants typically don't include funds for market research, so this is kind of a new.

I'm not sure exactly how the RFP was written and how that was different from other grant opportunities, but I think this has definitely been a valuable opportunity for the product teams to be able to learn more about the target users and communities for their projects.

Kori Hamilton Biagas:

And it sounds like an opportunity, in terms of the product teams, to have that direct support from the Department of Education to use those funds, because I know that sometimes it feels like the market research is not a good use of budget money, but it's necessary in order to create products that really can adapt in the context that we're trying to support learners in. So I think that that's really exciting that the Department understood the need and that they created opportunities for product teams to be able to use some of their support in order to do that.

So, if you were able to describe kind of the future of your work in the ideal context, how would you think about, like, the dream of the integration of innovations into the pre-k through [postsecondary] setting? What would be kind of the best-case scenario, where you feel like, "Job well done," if you see this happening in your tenure?

Rebecca Griffiths:

Oh, that's such a hard question. I mean, I'm not, I think the term I've heard for this is a "techno-solutionist." I don't necessarily think that technology is the solution for every problem. And I think I personally see education as a fundamentally social activity. That process of learning, I think, is almost inseparable from the social relationships, through which we learn. So I guess my grand ambitions might be a little bit on the modest side. I'm not looking to completely transform our education sector into a digital one. I don't think that would actually be a good outcome. I just really want to see technology used well and for good reasons.

I want to see districts and educators using technology tools in ways that enhance the student's learning experience, that reduce barriers for them, that help them get excited about learning. I don't want to see kids doing sort of "kill and drill" exercises in math programs. I don't want to see districts wasting a lot of money on technologies that don't have evidence that they do the things they claim to be able to do.

And so I'm sort of trying to contribute to that world where districts are making choices about what technologies and innovations to use with good information, and are making good tradeoffs given that resources are always limited and that the experiences that students have are enriched.

Kori Hamilton Biagas:

I like that. And you said a couple other things that piqued my curiosity. You said evidence and you said good information.

Rebecca Griffiths:

Mm-hmm.

Kori Hamilton Biagas:

What do you mean by those things, when you're saying that the technology has evidence? What kind of evidence are we talking about? And then what are the sorts of things that you would consider to be good information about a technology or a product or some sort of intervention?

Rebecca Griffiths:

That is also a great question because we know that evidence is used to describe lots of different kinds of information from word-of-mouth to testimonials up to gold standard randomized control experiments. I think about it in terms of being able to demonstrate that a product or program does what it claims it can do.

Kori Hamilton Biagas:

Mm-hmm.

Rebecca Griffiths:

You know, I tend not to think that effectiveness is inherent, an inherent quality of technology solutions. In most cases, whether they are beneficial for students depends very much on how they're being used, whether they're a good fit for the learning objectives, whether they're a good fit for the students.

Kori Hamilton Biagas:

Mm-hmm.

Rebecca Griffiths:

So evidence could be having case studies from districts that show that a technology performed in the way that it's intended to.

Kori Hamilton Biagas:

Mm-hmm.

Rebecca Griffiths:

It could also be, especially for technologies or for curriculum materials that claim that they will lead to improvements in student outcomes or student achievement in reading or math or whatever, then I would want to see those claims backed up by rigorous evidence from at least quasi-experimental studies.

Kori Hamilton Biagas:

And then that's connected to this good information, those different forms of evidence would be that good information that people then use to make the decisions about which technologies or which curricula or which products to integrate into their school settings and which ones to just leave on the shelf.

Rebecca Griffiths:

Yes. That sounds right.

Kori Hamilton Biagas:

Yeah. Okay. My favorite question:

You shared that you've been doing this work for many years. You came into it through circumstances that weren't always within your control. So what keeps you coming back to this work and to this space?

Rebecca Griffiths:

What keeps me coming back is a combination. I mean, certainly the factors that got me interested in education to begin with, I love learning. I'm passionate about creating opportunities for kids and other people to learn and I think education is essential for the well-being of our society, for rectifying the inequities that exist today due to historical injustices. And there's just a tremendous amount of work to be done in improving the way in which we provide all kids with equitable opportunities or access to great education.

That mission is always motivating. I think I also just really enjoy other people who are attracted to this field. So I love the colleagues I work with. I've worked with wonderful partners. I'm always really excited when we have the opportunity to work with educators and with students and to understand what their lives are like and how the work we're doing affects them, can benefit them. There's nothing better than doing, you know, focus groups with students when we're working on a research project and hearing enthusiasm when they find something's been helpful for them.

Kori Hamilton Biagas:

Mm-hmm.

Rebecca Griffiths:

So that keeps me coming back.

[Theme music fades in]

Kori Hamilton Biagas:

Thank you. Well, this has been really informative, Rebecca, and I appreciate your time on The Homeroom today. Thank you so much for joining us.

Rebecca Griffiths:

That's my pleasure, Kori.

Kori Hamilton Biagas:

Thank you all for listening to The SRI Homeroom and we will see you next time. Bye.

Thank you for joining us on the SRI Homeroom, produced by SRI Education, a division of SRI. Our guest today was Rebecca Griffiths, Principal Researcher with SRI Education. Learn more about Rebecca and her work in today's show notes. You can find a transcript of today's show or browse our entire archive of episodes by visiting srieducationnews.org. You can also connect with us on social media with the links in today's show notes. The views expressed in today's podcast belong solely to the participants and do not represent the views of SRI or any organizational funder or partner.

[Theme music fades out]