Tammy Friend:

Welcome to the G.U.I.D.E. for Life podcast, exploring topics related to the personal competency skills that empower Arkansas students and teachers to thrive at home, school, on the job, and in the community.

I am Tammy Friend, and joining us today, we have Tammy Glass, and Leslie Leber, statewide computer science specialist, and Andress Scott, RISE regional specialist, here to share a glimpse of behind the scenes of the Read, Code, Create Program, a collaborative effort between literacy, computer science, STEM, and G.U.I.D.E. for Life. Thank you ladies for being here today.

Tammy Glass:

Thanks for having us.

Leslie Leber:

Yeah, thank you.

Tammy Friend:

Last episode, we got to meet with Kelly Griffin, Sandy Shepard, and Dr. Samantha Duchscherer about the program. They introduced it. Maybe for those that might not have been able to join us or weren't aware, could you give us some background ladies on the details of what this program is exactly?

Leslie Leber:

Oh, Tammy, it's so exciting. This program is Read, Code, Create. Read, Code, Create is a program that allows our students in the sixth grades to get a set of books and be able to not only enjoy that book, but have activities from each of those areas to go along with it.

Andress Scott:

I'll just jump in and say one of my favorite things is the book that was chosen because it does lend itself for integration. It has a positive message, it has a struggling student who's reluctant to read, but yet he's still learning how to code. It was really kind of poignant for what we were trying to do.

Tammy Friend:

Absolutely, yes, and the activities are so engaging. I got the opportunity to peruse those. What are some of the computer science activities that teachers and students will be able to engage in?

Leslie Leber:

In the training, teachers got a chance to explore some of those activities. One of their favorite activities was hacking the circuit playground. They got to use the circuit playground to try to figure out an order of which things were happening. They explore that algorithmic thinking, but the biggest thing they explore, perseverance, because they were screaming at their circuit playgrounds. They were shaking them in the air. Oh my gosh. It was hilarious to watch, so I can't imagine getting to see the students be as engaged as the teachers were.

Tammy Friend:

Absolutely, and speaking of those circuit playgrounds now, they're going to be, if I'm not mistaken, there are some that are going to be distributed to all the co-ops for teachers to be able to check out to use with their students?

Leslie Leber:

Yes, that's correct. There'll be 30 at each cooperative around the state and it can be checked out for the teachers to use in their classroom. If they don't have a circuit playground, we've got one for you to borrow.

Tammy Friend:

That's awesome, that's awesome. You mentioned perseverance, which is such an important skill. Of course we see Derek, the main character in the book, struggles and is ready to give up, and his dad supports him and provides some tools and support to keep him going. Of course, the support from his friends. I bet they did have a big time with that. So we're training co-ops right now.

Leslie Leber:

Yes, we're working on training co-ops around the state. Each co-op got a one-day training where their teachers come and they receive a copy. Each teacher that comes receives a copy, and each sixth grade building will receive a classroom set of books, so that's pretty exciting.

Andress Scott:

We won't name the teacher, but we will say there were some cheering involved when they found out there were lesson plans and videos and all kinds of funding, that went over really well.

Tammy Friend:

Yes, I get it. I mean, they're being provided at a whole collection of activities and just ready to go resources. What a fun way to round out the school year because they'll roll out April, May, and so that's ideal.

Speaking of the book, in accordance with our RISE initiative, Arkansas educators are literacy teachers. We know this, and so how did you tie literacy to computer science? Andress.

Andress Scott:

Easily. Both of those things have a code and it has an understanding of code. That in English, we have a code. Being able to read requires an understanding that we have an alphabet that has 26 letters, and those 26 letters make 44 sounds, and those 44 sounds are spelled in over 200 different ways. That understanding is a basic code that we teach when we teach kids how to decode. That means to read, to get the words off the page. This just fit hand in hand with the basic skills that we use.

We have an activity in the book that discusses the importance of features like beginning a sentence with a capital letter and ending with punctuation. We talk about syntax, and we talk about how when you code, you have to put every single thing in the correct order in order to make the program run the way you want.

Well, that's the same with reading. You have to pay attention to every letter in the word in order to read the word correctly, and then the words together in chunks to make sentences, and sentences into

paragraphs and paragraphs into a whole. The process is really the same in that it's an understanding of the code and a proper use of that. We really were able to compare and bridge those two things very seamlessly, and it was a lot of fun.

Tammy Friend:

Wasn't it though? It really was fun, and I have you to thank for bringing me into it to get to pull out some of these life skills and tie it to what these characters are experiencing. Thank you for that. It was so much fun, and get to work with different team members across the agency in different disciplines too is such a joy.

Andress Scott:

I just knew that when I read this from an English teacher perspective. I loved the story, I loved the characters, but I knew that there were some things, some topics that deal with emotional health and wellbeing just in general, that I thought we need to bring in someone from the G.U.I.D.E. for Life team so they can help support us and we make sure we address these topics properly to give teachers that tool.

I have a lot of faith in classroom teachers and they know how to handle all kinds of topics, but I felt like that was important for us to be collaborative with that. We mentioned earlier about the theme, and that's something that as an English teacher, we always want students to have an understanding of at the end of a book or any piece that we read is, what was the author's purpose and what was the theme? What's the lesson that you learned? What's your takeaway?

Really it is here that you do things even when they're hard to achieve a reward at the end. That if you stick to it, your perseverance can pay off in a big way. I think there are also some other themes about how important it is to support the people that you care about. There were lots of opportunities for discussion.

Tammy Friend:

There really were, yes.

Tammy Glass:

There really were. I want to go back, Tammy, just a minute to the activity that she was talking about with literacy and the ASCII table, because we had a teacher in our last training who looked at it through a whole different lens, and it was really cool to see those teachers explain how they could use this in their classroom. Things that we didn't even think about, and I think Leslie said this morning, that was one of her favorite parts of the PDs is the very end when teachers get to go, this is how I could use it, and it really opens their eyes.

But the example that she gave with the ASCII table was in science, kids have a hard time reading charts and tables. That ASCII activity was also that reading of a chart that they had to go through and find and locate and make those connections. Sometimes we are in our own little world of what we do and we don't realize how it can be used in other ways, so I think that's really neat to see that happen.

Tammy Friend:

Absolutely, yes.

Leslie Leber:

I like that because we're using an anchor text, because we're using a book to guide all the activities, there's that opportunity for all those different connections to be made.

Andress Scott:

One of the activities that's in there is actually deals with the term variable and how do we use it in variable math? How do we use it in computer science? How do we use it in science? When we said that these activities are super integrated and it's going to open a world of interest for lots of different ways that you can meet your kids where they're at for different areas of interest, I just think that there's so much here. It's just super rich. It's a really good book, I think, for integration, and I think you guys are going to find lots of opportunities to benefit in your classroom with that.

Tammy Friend:

Absolutely. Well, and so to pull off a project of this magnitude, I know it took a lot of work. I know I'd get emails and I would be on the Google Docs and I would see Tammy and Leslie's icon up at the top, and Andress, and then I would be like, oh no, I'm behind. You put pressure on yourself because you want to make sure you get this done or anyway. What considerations came into play for the process, like the planning process? What all did it entail?

Tammy Glass:

The computer science team started with an idea, and to give you a little bit of background without going too in detail. For the past four or five years, we have given books to the public school libraries around the state. We've given so many to the elementary and the middle school and the high school. Sometimes you just need a change. We were like, what can we do? What can we change with that program to go into something different?

That's where this program came from. Adjusting something we had done in the past. We really started with, the first thing is looking at what book do we want to use? We went through a process of picking out a book. We got them down to two. We read them, we sent them to literacy to Ms. Sandy Shepard. We sent her a book and we all read it. The core part of our group read that. Then we come together and decided this is the book, this is the one.

From there, we just started planning about who did we need involved in this? We knew we need literacy and computer science. Then we're like, there's so many connections towards STEM, so we brought STEM in, and then of course we brought G.U.I.D.E. for Life in, which we're so grateful for. It's been a great opportunity for that.

That process just rolled into what can we do? We brainstormed as a group. We threw around ideas about how to get information out to our teachers. How are we going to make this work? From previous work within our team, we come up with using the Google Docs, being able to have that collaborative effort where everybody knew where everything was. We've joked around since day one about link of links, right?

Tammy Friend:
The RCC link of links.

Tammy Glass:

That's been kind of our board, like your board in your classroom with all your to-do lists. It's our hub. It has worked well for that, for our collaboration, and like you said, you can see when someone else is on, you can chat. I've chatted with several people throughout, and then emails to just keep everybody in loop. It's been a great process.

Andress Scott:

We even got to Zoom with the author. That was a really cool experience. She writes this series of books that are My Life As, and they all feature this character Derek, and this one is My Life as a Coder. Her son does the illustrations, and she was talking to us about that when her son was younger, he struggled with vocabulary in school and that he was able to make note cards and draw pictures. That the illustrations would help him to remember what words meant to have a deeper understanding of those.

All of the pages are filled with illustrations in the margins that all help a reader to visualize the words and to help explain what they might mean in context. That's helpful for every reader, and we knew that as another literacy-focused activity, vocabulary was huge in this book. That for students to have this understanding of the computer science element, of the STEM elements, that they really needed to understand the vocabulary.

We have a couple of lessons where we walk teachers through how to break down those words in some keywords into their morphological parts. We want students to truly understand everything about a word. I want them to own everything about a word, and what words are related, what words are connected. Because that way they're not just learning one word in one context, they're learning that word and how it's used. Like variable, the weatherman's been using it all week. The term variable we hear in a lot of areas of our lives, so that would be something I'd want kids to know everything about that in different contexts.

We've had a lot of opportunity in this book for teachers to model good reading as they read aloud to their students and share this book with their students. We've talked about think aloud, so when you look at those pictures and you talk about the context and you model, I wonder what Derek is thinking right now? Why would he say that? Our students need that. They need that sort of model. For those of us who are good readers, it comes naturally. But for students who struggle, they have to be taught how to do that process because it doesn't just come naturally.

I just want to also say that there are so many opportunities for additional study or additional research that come out of this book. That we have an activity built in to the PD that includes researching hackers and what it means to be a hacktivist, and so we have that built in. But there are so many other things that if a student gets interested in the topic, they can research those.

Therapy animals comes up. That will be so cool to do some research into therapy animals.

Tammy Friend:

That self-directed learning piece. It's so critical.

Andress Scott:

Absolutely. We have so many kids who are into video games and just that process of what? I could write my own game, that's a thing. Yeah, it's a thing, and they could do some research and learn about game creation or additional code writing, code creation. This opportunity is going to open a lot of doors for students.

Tammy Glass:

Andress, I want to add in something to what you just said. We also have and are going to include I'm excited about this part because it's been a challenge to get everybody's videos turned in, but we have 29 different people reading a chapter of the book. They are Arkansas-based, industry, education-based individuals. We have a mayor that I think Andress knows very well. Then we have someone involved with skateboarding up in Northwest Arkansas, which is really cool. We have some firefighters, all kinds of people. Programmers. It's such a variety of people and we tried to connect each of those people very specifically to a chapter that was relevant to them.

When they're talking about skateboarding in the book, the skateboarding person is reading that chapter. That's really cool. Little things behind the scene that come together and have a purpose that others may not realize that it's purposely placed there.

I'm excited about the videos to bring in that reading, so the teacher actually has the opportunity to, instead of reading to the class, if they're not comfortable with that, they can use those videos. One of the exciting things about the videos, every person that I have viewed their videos so far has made a mistake while reading their video. I think that's powerful to our students because they know that if they stumble on a word or they're having trouble pronouncing the word correctly, there are adults that do this too.

Tammy Friend:

Part of the learning process, of course. Really the most important part, that's really where the learning occurs.

Tammy Glass:

I'm excited about the videos too, but the author... We had said we really enjoyed the interview with her, and how animated that she was. We've got her in there as a video too, and I've really enjoyed getting to work on this project. I mean, there's so many wonderful things. I'm just super excited to be a part of it.

Tammy Friend:

Well, and shout out to this computer science team. You all took whatever content ideas we all had, and then you made them beautiful, and you made them not just visually appealing in the format that teachers will be receiving, but it's very clear, it's very organized.

This is something that a school could take and one teacher could be totally successful or a team of teachers could be totally successful. They could do this cross-curricularly in their classrooms. If I was teaching in a sixth grade building, I as an English teacher would partner with my computer science and STEM teacher, and we would do this project together. I think that there's so many opportunities and it's because you really laid it out and it's a beautiful product.

Leslie Leber:

I'm super proud of the way it has turned out. I'm that creative mind behind things, and so that's my first approach is the creativity. Once I can get that situated in my mind, then you can flow forward.

I think each of our team members and the team that worked on this project, each person brought a very specific thing to this project. You can see each person's skills and personality brought out in their lesson plans, in the activities. That's really cool in ourselves is to remind our teachers that our students have

those different learning styles. We've tried to make sure that the activities reflect those variety of learning styles.

Tammy Friend:

Yes, they do. They really do. Any tips for educators who will be rolling this out in April?

Leslie Leber:

We had that discussion with our first group of teachers that came through this past week. The big thing that we tell them is the plan was for you to be able to do this in your classroom in the spring, and that's why the PDs happened in this part of the year. We want you to be able to go back in April and May when things are kind of crazy in your classroom, and you to have something that is already laid out for you.

Kids are going to learn, but have fun in learning. If a single teacher picked up this product and this book, and depending on how many activity you did, is going to determine the length of time. But we're saying probably at least two weeks depending on how much time you devote to it, whether it's a class period, or like Andress said, collaborating and maybe several people are doing things, it's going to adjust your time. But what better way that after testing, your kids can have some fun activities to do, but they're still learning and they don't realize it.

Tammy Friend:

There you go, yes. Any final thoughts to leave with us?

Andress Scott:

Well, I still want to see all of the wonderful things that are happening inside your classroom. Do the hashtag, tag us. Hashtag CSPR, or I would love to build a new hashtag, hashtag My Life as a Coder.

Tammy Friend:

We'll have to put that in there, in the notes.

Andress Scott:

Yes. Because I really, I'm super excited and I love it when I was telling Tammy earlier, that's my favorite part because I love to see the excitement on kids' faces, that aha moment. That's what we live for as educators. We love to see when our kids are having fun when they're learning. I can't wait to see that, and I really want you to post that stuff so we can share in the joy.

Leslie Leber:

The only other thing is if you haven't signed up for a PD, if there's still those happening out there, we'll have a place in the notes with the link for you to be able to sign up.

Something else to think about is if you're interested in what we did in this PD, linking to books and making those connections, the computer science teams, PDs this summer. We have a K4 PD that is going to use the book Ava in Code Land, which is a really neat picture book for K4. We're going to be using that one in that PD.

Then the 58 PD for computer science that we do is actually going to be an extension of this book. We're going to use some other of the activities that we don't use in this PD. We're going to be using some of

those same things, some of that same concept and linking to that same book. So many of our middle school teachers, 58 teachers are going to be involved from this training. That's what we're going to carry through for this summer.

If you're looking for a summer training that kind of does the same process, make sure you check out our computer science K4 and computer science 58 lessons and activities and that training.

Tammy Friend:

I'll put that information in the show notes for sure. Well, thank you ladies. I appreciate you spending time with us today and I'm looking forward to be able to join you on a training and feel the energy in person.

Tammy Glass:

Thanks for having us today, Tammy.

Leslie Leber:

Thank you very much.

Tammy Friend:

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