

STEAM

SCIENCE. TECHNOLOGY. ENGINEERING. ART. MATHEMATICS.

by Lauren Nettles

“Don’t settle for mediocrity. We didn’t get to where we are now by settling for mediocrity.”

STEM - science, technology, engineering and mathematics - education has become a focus in American education to prepare students for careers in these growing and important fields. Recently, the focus has broadened and added an extra letter to the acronym. The idea of a STEAM education has the additional component of art - creativity and critical thinking, best developed through exposure to the arts, is vital to success in technical fields.

Women remain underrepresented in

science and engineering fields, especially in engineering, physical sciences and computer science, according to a 2014 study from the National Science Foundation. A stereotype remains that these fields are very limited and lacking in opportunity to be creative. “Seun Erinle at A.I.R. Labs wants to prove this assumption wrong and, through accessible education, put STEAM subjects in the proper light.”

Before opening A.I.R. Labs, Erinle taught for 16 years across a wide range of subjects, even before getting her first de-

gree. Erinle’s passion for teaching shines through when she speaks about her classes at A.I.R. Labs. “I don’t want people to feel like they have to stop learning, or that there aren’t opportunities to learn because they aren’t in school anymore, or they finish school at 3:00,” she says.

Erinle’s enthusiasm for teaching is matched by her desire to continue learning with everything she does. “It’s an everyday struggle for me. Not a struggle in a bad way, but just problem solving ... the whole process of learning and research-

ing and coming up with a final product. That’s just amazing. It’s really satisfying. It’s a big push for motivation for myself. I want to use all my skills, but in the process I’m going to learn new things.”

Continuing to learn does not only apply to coding and web design but in every aspect of life. There is no shame in being open to the idea that there is more to learn and ways to improve. “I think that’s the thing we forget about. Everything we do is practice. We say that doctors practice medicine and lawyers practice law, but we don’t say we practice design or we practice writing. We’re all practitioners in the fields that we choose. I constantly want to be practicing. I can’t be okay with, ‘Oh, I got this degree ... so I’m an expert, and I never have to learn again, never have to keep up with anything.’ That’s not okay. That’s not the way it should be. I think we need to start changing that mentality in society and in the education system. I think we imply that if you do all of these things, and you finish this degree, you are then qualified. You’re never really qualified for anything. It’s a constant, constant practice, and I love practicing design and practicing code.”

After completing her first degree in computer science, Erinle moved on to design school. She is what is referred to in the business as a unicorn - a rare person who can code and design, both with skill. Three years ago, Erinle began teaching DEV DEV <summer of code/> camp at the Chattanooga Library, which helps teenagers develop the technology skills that are becoming absolutely vital in the job market today. By her third year teaching DEV DEV, Erinle had started A.I.R. Labs, which educates students of all ages in digital literacy, code, digital design and much more on the way.

A.I.R. stands for Aspire. Imagine. Reason. “These are the three qualities that I

feel you need to really accomplish anything in life,” says Erinle. “I haven’t been too much of a person to take to heart other people’s negativity and lack of faith. I want to create a space where people can come and share ideas and give each other helpful critiques...”

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A stereotype about coding, like many technical fields, is that it is very cut and dry and gives no opportunity to be creative or break outside of a pre-set box. Erinle disagrees with this stereotype: “A lot of people don’t see coding as something that’s creative, but it’s a lot of problem solving and puzzle solving ... and I find it fun. I find that you can start with a blank computer screen and then all of a sudden have this amazing interactive product that you can use and play with and just do anything that you want to do.”

As the focus on STEM education shifts to STEAM education, this incorrect perception of technical fields as lacking in creativity is beginning to shift as well. “I think [art] is a must,” said Erinle. “I’ve started integrating design into our courses that we’re offering because everything that we do involves design in some way, whether it’s this marker or a toaster or the bottle of wine that we choose because the label looks really cool. Design is a part of everything.”

Another misconception about coding is that it’s a very limited field, used for website programming only. “So much coding is involved in their lives without them knowing it. The routing machine that cut out the circles in that chair [beside you] was coded by a human being that told the robot to cut this diameter of a circle at this grid pattern on this type of chair with a slight curve in the back. The toaster that we use, the chip inside was coded by a person to say, when you push this button down at this number, toast it until it is brown at this temperature and then pop it

back up. There’s so much stuff.”

Bringing this full understanding of STEAM education and careers to everyone is what Erinle hopes to accomplish at A.I.R. Labs. “I want to help break down that barrier that says STEM or STEAM is just very calculated steps. It’s not a box. It’s just whatever you want to make it. It’s so versatile... You need to get people in it, and start creating.”

Even if a career in a STEAM field is not a personal goal, there is a lot to learn from coding. Learning how a website or piece of technology functions brings a deeper understanding and appreciation of the technology that is involved in so many aspects of our daily lives. “My unofficial tagline of A.I.R. Labs is to not just consume, but to also learn how to create. I feel like that’s all we do - we know how to use stuff, but we don’t understand or appreciate the time or effort and skill that went into creating all these gadgets and applications that we use.”

Learning how to code, like learning to do anything from scratch, can be frustrating. However, it teaches an incredibly important skill, one that Erinle finds critical in learning and in life: persistence. “[It] is a constant in my life. It’s the name of my wifi network... You need persistence in everything that you do. You can’t just give up or never start because you’re overly cautious of how hard it’s going to be or that you’re going to fail. Without trying and without some of those failures, you don’t grow. I think people forget about everything that they’ve overcome and how many times they’ve gotten back up.” Although much of Erinle’s time is dedicated to her passion for teaching and technology, her advice stretches far beyond the world of programming: “Don’t settle for mediocrity. We didn’t get to where we are now by settling for mediocrity.”

To learn more about A.I.R. Labs or sign up for classes, visit weareairlabs.com.