

Undergraduate's writing program demonstrates the power of storytelling in STEM

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Elea Abisamra (at left) and other Virginia Tech students teach elementary school kids about science through writing and self-publishing books. Credit: Clark DeHart / Virginia Tech

Elea Abisamra published her first book in fifth grade. Before she became a Virginia Tech College of Science student majoring in cognitive and behavioral neuroscience, Abisamra's grade school years were focused on her love of writing.

A family friend introduced her to Amazon's CreateSpace, now known as Kindle Direct Publishing. With her mother's support and editing, a young Abisamra published a book. She felt seen and heard, something she longed to share with other kids. This seed would continue to grow into a global nonprofit called Kids Can Write.

"I love science, but I feel there's always been a mindset where people think, 'Okay, you're an English person' or you're going to be a lawyer or doctor or engineer, and in my head, storytelling is the thread between everything," said Abisamra, now a junior. "You can go be a scientist, but you also have to communicate and you also have to be compelling when you communicate. You have to make scientific methods, which is like planning your [story](#). Stories are everywhere."

Once Abisamra became a [college student](#), she pursued her love of science and writing. With new resources and opportunities, her earlier dream to help kids publish took form.

Abisamra formed Kids Can Write in the summer of 2022. The first chapter was at Virginia Tech, and the first program ran that fall with 15 students at Gilbert Linkous Elementary School in Blacksburg and 34 tutors from all majors. By the end of this month, the program will have helped 95 kids publish books with more than 150 tutors as editors.

"As a neuro major, I wanted to find a way to give back to the community and the School of Neuroscience while also creating a community with other neuro majors who would be tutors in the program," said Abisamra.

The first Kids Can Write program allowed student to write and publish a story on a topic of their choice. In January, Abisamra created an additional program that taught students about the brain through storytelling. She incorporated neuroscience majors as tutors and editors to support the process by teaching lessons on neuroscience and helping students create their own interpretation of the information.

How it works

- Students choose how they will write about the brain, such as book of poems, a story that takes place inside the brain, a treasure hunt, etc.
- Tutors ask questions to help students build character summaries.
- Students create a timeline map of their story as a writing guide.
- Students produce illustrations for their book.
- The final product is published and celebrated at a closing ceremony.

"What started out as only writing is now a teaching tool for science. We want to show that storytelling is connected with neuroscience and all fields, and that students can use storytelling to learn. Then they publish their work, and it's with them forever," said Abisamra.

Karen Schendel, the E2 director at Gilbert Linkous Elementary School, worked with Abisamra to develop a description of her class and coordinate registration. Schendel said Kids Can Write is "a very popular class," both with students and parents, who are enthusiastically supportive. One [student](#) told Schendel she had been working on a story in her head before she even knew about the class and was very excited to turn it into a "real book."

"I get the sense that kids have stories to tell, and they love the idea of sharing their stories with others," said Schendel. "To be able to turn their

story into a real book is so enticing."

Sharing her story

Abisamra was invited to write a paper about this innovative way to teach STEM concepts to students for the science research journal *Cell*. The work, titled "[The Power of Storytelling in STEM](#)," was published Nov. 9.

Kids Can Write moved beyond Blacksburg's borders well before Abisamra published her *Cell* article. There is a chapter at George Mason University as well as international groups in Lebanon and Jordan. Over the summer, Abisamra spoke to students at Johns Hopkins University who would like to start a club next semester, and she plans on traveling to Tanzania to teach a workshop in May 2024.

Abisamra has adapted the writing program to do more than teach science. Through collaborations with Virginia Tech and other external groups, there is an initiative for [cancer patients](#), seniors with [cognitive decline](#), people in prison, kids in Lebanon and Jordan, and refugees in Poland. Writing gives a voice to underrepresented groups who Abisamra said can "benefit from self-expression, self-confidence, mentorship, and publishing."

Some collaborations are personal. Abisamra lost a cousin to cancer and a grandmother to Alzheimer's disease. Her family roots are in Lebanon, and she spent early years living in Jordan, where she remembers people living in poverty. Abisamra is grateful for the opportunities her parents gave her by moving. She takes nothing for granted and sees Kids Can Write as a way to give back. Impact is her goal, not profit.

"I'm making an online course in the spring that will also function with some tutoring. Some schools don't have the option for in person

programs and a lot of schools are experiencing teacher shortages, so I think this would be great for those kids," said Abisamra.

Looking forward, Abisamra hopes to see Kids Can Write reach around the globe and maybe inspire a school for kids without a home or connections. For now, she continues to spread the word in hopes of inspiring others to join her cause.

"None of this could happen without the tutors and the partners we have," said Abisamra. "The more partners and collaborators, the more we can do. I want this to be big."

More information: Elea-Maria Abisamra, The power of storytelling in STEM, *Cell* (2023). [DOI: 10.1016/j.cell.2023.10.010](https://doi.org/10.1016/j.cell.2023.10.010)

All of the resources Abisamra creates are free, and information about creating a chapter is available on her website kidsanwrite.net.

Provided by Virginia Tech

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