NW Noggin: Creating Connections Coast to Coast

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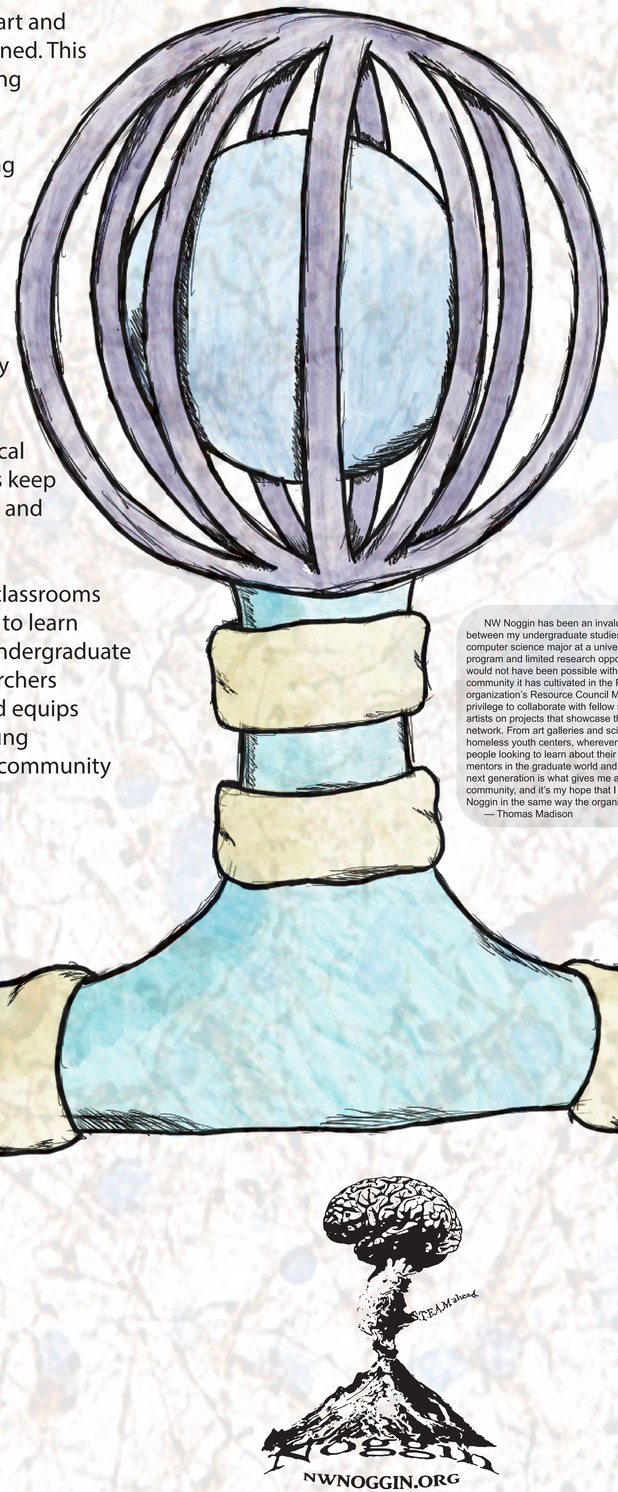
NW Noggin serves as a positive, meaningful influence in the community by combining art and neuroscience education to excite and enthuse those who may not be as scientifically inclined. This goal is met in various ways, such as community outreach, public education, and connecting near-peers in the science community.

In a local setting, the coordinator for the Portland March for Science used the networking structure of NW Noggin to encourage community involvement, while our volunteers marched with the community to gain support and raise awareness for neuroscience, research, and science as a whole. On a national scale, NW Noggin volunteers from the undergradua to postdoctoral level are advocating for the importance of arts integration techniques into STEM outreach and education, effectively turning STEM into STEAM. Alongside such large-scale events are smaller and more frequent events that take place in the community. Local researchers and artists present their collaborations in community spaces in order to inform the general public on current research and relevant social concerns, such as how homelessness affects mental health. Community excitement is garnered through talks hosted by NW Noggin at a local bike shop and pub, supporting local businesses while stirring a passion for science. Additionally, the NW Noggin website helps keep the community informed about new research and events within the field of neuroscience and provides resources for educators interested in integrating art into their lesson plans.

Undergraduate and graduate student volunteers make neuroscience to come to life in classrooms throughout Oregon and Southwest Washington, connecting students with opportunities to learn about future educational pathways and possible careers. Making connections between undergraduate students, graduate students, and senior researchers exposes fresh minds to new career ideas and equips them with valuable resources, resulting in young neuroscientists who are truly passionate about community involvement and education.



NW Noggin helped me to regain the love of science that I had as a child. I had taken some of Dr. Bill Griesar's classes years ago and found them interesting, but it wasn't until this past school year that I began to really dig deeper and learn more about the brain and about neuroscience. Cognitive Neuroscience of Memory was an absolutely fascinating class, and from there, I knew that I needed to learn more. Being a shy person, I have struggled greatly with getting involved with things that interest me, but when I discovered that there would be a March for Science going on in Portland and that NW Noggin would be a part of it, I knew this was the perfect time to get involved. Marching for science and being a part of this organization really helped me to feel like I belonged, and it gave me the courage I needed to try to get over some of my shyness and do more with the community.

As I've continued to work with NW Noggin, I've been able to be more comfortable being around people and speaking publicly, which has led to me getting involved with the Neuroscience Club and the Psychology Club; I am now a student leader in both. NW Noggin has also heavily inspired me artistically and led me to create some really unique neuron art, which attracted the interest of a local gallery. Being able to work with children and the community has been an incredibly rewarding experience. I love seeing children light up as they talk about the different parts of the brain, and watching these kids turn into little scientists and ask such powerful questions is amazing. From this, I've gained valuable experience in teaching about the brain, which has also helped me to better understand the material in my own college courses.

My newfound love of neuroscience has also given me more direction for where I want to go with my future career. In the past, I'd wavered between going into clinical psychology or chancing it with pre-med courses and maybe shooting for medical school. Discovering that there was indeed a way to combine my love of neuroscience and psychology was a very powerful and eye-opening experience, and because of that, I am now looking into graduate and doctoral programs for clinical psychology, neuroscience, and neuropsychology with the end goal of going into clinical neuropsychology.

— Alison Mack

How NW Noggin outreach and networking opportunities have affected my future goals:

Growing up in a low socio-economic home where education and future goals were not a focus, I progressed through life profoundly unaware of potential opportunities to explore my interests. It was not until I was introduced to neuroscience in an undergraduate classroom that I found an area of study that was of great interest to me. I had always been under the impression that I did not like science because I was not "good at it." To my surprise, I discovered that I was not only immensely interested in learning more about the brain and how it works, but it made sense to me. Through neuroscience classes with Dr. Bill Griesar I was introduced to outreach work with NW Noggin (Neuroscience Outreach Groups Growing in Networks).

With the focus of NW Noggin outreach efforts being aimed at K-12 academic priority schools, I am connecting with students who may have had similar growing up experiences as myself. For me, the most rewarding part of these outreach efforts is the opportunity to share my knowledge about possible future career or educational pathways with the students. Science, technology, engineering, art, and mathematics (STEAM) careers are often thought of as unattainable for those who grow up outside the realm of academia. Being able to encourage and excite kids about STEAM education has been very rewarding. In addition to outreach in the community NW Noggin brings together undergraduate, graduate students and post-doctoral researchers. This collaboration between near-peers helps to facilitate networking and furthers potential career opportunities.

Involvement in arts-integrated neuroscience outreach has not only changed my perspective on education and facilitated career opportunities that have changed my life course, but also given me the opportunity to offer these ideas and opportunities to others.

— Jessica Patching-Bunch

Noggin has helped shape my educational trajectory and how I see the world. All of my experiences with Noggin have been as transformational as they have been educational, but my favorite Noggin memory has to be working with Sitton Elementary, a school for children that had been victims of early childhood trauma who were living in transitional housing. The first thing I saw was a classroom full of giggling first graders. There were human brains laid out on the table, and our job was to show the children the lobes of the brain and what they did. Before every class the teacher would dim the lights, play soothing music, and have the children breathe deeply. Children who had particular difficulty were assigned personal helpers. These children were just as bright and had just as much potential but needed some special care to reach it fully. The entire class had already learned what their hippocampus and amygdala were — two areas that are most dramatically affected by trauma. One little girl came up to me as I was holding one of the brains and said, "I want to know exactly, and I mean exactly, how the hippocampus works." I was blown away. She'll probably be the next great neuroscientist of our era. Afterward I thanked the teacher for the way she interacted with the children. I had never seen a classroom run in a way that actually helped managed children's trauma symptoms. She was giving these kids the tools they needed to succeed. Instead of seeing a child who was acting up, she saw a child who needed extra attention and care — that clearly, this was a manifestation of something else that was going on. As I genuinely thanked her, tears began to roll down her cheeks; she truly understood these children, what they were going through, and what they needed. I began to tear up too; Noggin had connected me with this experience that changed how I saw early education and what it could be. What a different world we would live in if instead of labeling people who had experienced trauma as difficult or problematic, we tried to understand them and cater our education system or our society to better help them. I have based most of my psychology course work on neuroscience and trauma after this experience. Noggin changed my educational trajectory and connected me with an experience that changed the way I see the world.

— Rebekah Hough

NW Noggin has been an invaluable resource for bridging the gap between my undergraduate studies and a career in neuroscience. As computer science major at a university with no neuroscience degree program and limited research opportunities, finding my career path would not have been possible without the support of NW Noggin and the community it has cultivated in the Pacific Northwest and beyond. As the organization's Resource Council Member for Technology, I have had the privilege to collaborate with fellow students, teachers, researchers and artists on projects that showcase the creativity and diversity of our network. From art galleries and science museums to K-12 schools and homeless youth centers, wherever I go with NW Noggin I meet fellow people looking to learn about their brains and themselves. Finding mentors in the graduate world and building peer relationships with the next generation is what gives me a sense of belonging in the scientific community, and it's my hope that I can benefit others through NW Noggin in the same way the organization has benefited me.

— Thomas Madison

I owe my interest in neuroscience to NW Noggin and Dr. Bill Griesar. It all started with taking one of Dr. Griesar'sneuroscience courses at Portland State University —Cognitive Neuroscience of Memory — which led me to taking more neuroscience classes and getting involved with Noggin. In addition to attending the regular neuroscience education events Noggin hosts at a local bike shop/pub called Velo Cult, Noggin has given me the opportunity to go to schools across the state of Oregon, sharing brains and sparking a curiosity in neuroscience in the minds of countless students. The outreach I have had the chance to do with Noggin has impacted me as much, if not more so, than it has impacted the people we have taught. Thanks to Noggin, I have found an area of academic interest that I never would have found before. This led me to concentrate my degree in psychology/social sciences in neuroscience/neuropsychology, inspired me to serve as a teaching assistant in neuroscience courses, and is giving me the chance to spread my love for neuroscience to others.

— Travis Christian

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