#### University of North Texas

#### Raise Up Radio: Family and Youth Engagement in Library-Supported Learning via Radio

The University of North Texas and the University of Alabama, in partnership with the Pottsboro Area Library and the Tuscaloosa Public Library, request \$422,276 for the project "Raise Up Radio: Family and Youth Engagement in Library Supported Learning Via Radio" to address educational inequities in rural areas and create a new community of practice for library professionals. Libraries, museums, and educational institutions will connect with learners in rural communities through Science, Technology, Engineering, and Mathematics (STEM) content delivered over local radio stations. These radio programs will be designed by local youth and families using best practices for equitable engagement in learning, resulting in opportunities designed to meet the unique needs of each community. To support and expand these efforts, team members will form a community of practice for library professionals seeking to design radio programming in partnership with their local community.

#### **Statement of Broad Need**

Prior to the global pandemic, educators and researchers had already voiced concern about the widening digital divide in communities, most notably "the homework gap" for youth without reliable access to the internet during after-school hours (Lee, 2020). Schools and homes in rural and other disadvantaged areas often lack the devices, physical infrastructure, and skills to make productive use of internet access (Tyler-Wood, et al., 2018). New safety protocols in schools and communities over the coming years will require students to spend more time away from their classrooms (CDC, 2020; Kamenetz, 2020). Youth will continue to grow despite COVID-19 and other disasters; their learning cannot wait. The need for increased access to educational content is now.

As an immediate and sustainable solution, the Raise Up Radio program leverages existing community resources to create accessible, educational content through collaborative partnerships. Radio continues to be a significant access point to community news and information for rural communities; it also provides a lower barrier for access and engagement (Waldman, 2011). Radio has also proven an effective tool in the United States for community learning and empowerment (Chávez & Soep, 2005; Chávez & Soep, 2010; Gobir, 2020; Kretz, 2017; Richardson et al., 2019).

The proposed project will be developed in high-need communities in rural Texas and rural Alabama. These areas were targeted, as both states consistently rank below the national average on both key economic indicators and access to technologies necessary for teaching and learning (U.S. Census Bureau, 2020 a,b; IMLS Indicators Workbook, 2020; IMLS Public Data Metrics, 2019). Rural-serving libraries, already critical partners in community well-being (Hanacks, 2012; Reid & Howard, 2016), are poised to aid learners who would benefit most from innovative, radio-based educational programming focusing on STEM content.

# **Project Design**

During the project's two-year period, six libraries serving rural communities will each implement a total of four, five-week STEM educational programs delivered over local radio stations. The programs will be concurrently streamed and recorded for release as podcasts with transcripts to ensure multiple points of engagement, as well as accessibility. Collaboration among local schools, museums, education departments, and national experts will be facilitated by library professionals, who will work directly with teams of youth and families to create content and programs that are both designed for, and representative of, the voices within their communities.

In year one, PIs Dr. Sarah Evans (Assistant Professor, UNT) and Lance Simpson (Research and Instructional Services Librarian, UA) will work with a pilot cohort of rural-serving library professionals at Tuscaloosa Public Library in Alabama and Pottsboro Public Library in Texas. Dr. Evans is an experienced learning sciences researcher and, together, the PIs have nearly 30 years of leadership in libraries. In year two, *Full citations for references may be reviewed at https://sarahaevans.org/raise-up-radio-references/ 1* 

the pilot cohort librarians will serve as mentors for four additional libraries—two in Texas and two in Alabama. This cohort model is the beginning of a community of practice that will grow beyond the project. Community participants and library staff will create a toolkit, conference presentations, and webinars with the goal of connecting the voices of these rural communities to nationwide conversations on learning and libraries. They will be guided by a board of advisors, nationally recognized scholars and practitioners in family and young adult learning, as they expand into a larger community of practice.

## **Research Design**

Leveraging the research-practice partnership, project success will be measured through the lens of Design Based Research (DBR) (Barab & Squire, 2004; Sandoval & Bell, 2004). DBR connects previously developed theories to real-world practices through collaboratively designed interventions, then uses a variety of measures to increase our understanding of learning in diverse places. For this project, PIs and library professionals will look to research on informal learning in families and with youth peers to guide participant interactions and program design (Bevan et al, 2013; Heath, 2012; Ito, 2010; Rogoff, et al, 2016). Influential models from previous work in libraries include the Connected Learning Framework (Ito, et al., 2013), Public Library Association's Project Outcome (ALA, 2016), and Public Library Association's Framework to Support Family Engagement in Children's Learning Through Libraries (ALA, 2017a). Following similar models of "turning outward," as defined by The Harwood Institute and the Libraries Transform Communities initiative to ensure voice equity (ALA, 2017b), participating libraries will work with local youth and families to collect qualitative and quantitative assessment data through collaboratively developed instruments. Analysis of these measures will serve as both an evaluation of program impact and answers to the research questions, a) how do local, collaboratively developed library programs enhance youth and family STEM learning? and b) in what ways does STEM content delivered via radio increase interest in STEM for youth in rural areas?

# **Diversity Plan**

This project works directly with and for rural Americans, a group typically economically disadvantaged and underserved. Additionally, the project focuses on teaching library staff how to establish and maintain equitable collaborations with patrons, thus shifting the power dynamic towards greater inclusion of diverse voices.

### **Broad Impact**

This project will result in models and resources that directly address the concerns of families who do not have access to broadband and/or internet connected devices to continue their children's education. Additionally, the development of intergenerational content related to community needs will address concerns of community members impacted by the economic downturn. The project's goals and outcomes are as follows:

- Expand equitable access to STEM education through the provision of content that will be uninterrupted by shutdowns related to COVID-19 and other natural disasters (e.g., weather, infrastructure).
- Increase empirical knowledge of how STEM learning happens in libraries and rural communities.
- Establish a community of practice for library professionals using, or interested in using, radio broadcasts to innovate local programming.

### **Budget Summary**

We request a total of \$422,276, inclusive of fringe benefits and indirect costs, to support this two-year research in service to practice project, including the following: Salary support for PI/Co-PI, six librarians, and two student assistants (with tuition) (\$175,474); periodic travel to participating libraries, and conference travel for PI/Co-PI, students, Year 1 librarians, and community members (\$45,057); and recording equipment, STEM kits, and office supplies for libraries and incentives for participating families (\$150,437). Full citations for references may be reviewed at https://sarahaevans.org/raise-up-radio-references/