

CFDA 84.235E: Braille Training Program
Project INSPIRE 2: Access and Equity in STEM Learning for
Individuals who Read Braille

University of South Carolina Upstate, Spartanburg, SC, 4th Congressional District

University of South Carolina, Columbia, SC, 6th Congressional District

Principal Investigator: Tina S. Herzberg, Ph.D., FTE = 25%

Purpose: We will create comprehensive professional development (PD) and braille training materials that promote access and equity in STEM learning for K-12 students who read braille. Asynchronous PD will be designed for a variety of audiences, including teachers of students with visual impairments, braille transcribers, paraprofessionals, university pre-service students, and other stakeholders. Content of the PD courses will focus on (a) Nemeth Code within UEB Contexts (Nemeth Code), (b) UEB Math/Science, (c) culturally responsive instructional strategies, and (d) integrating technology into braille production and instruction. We will also develop student programs and materials that engage K-12 students in STEM learning while building their braille skills. All PD courses and student braille training materials will be available on the [Project INSPIRE website](#), so that educators and families can use them within their own schools and communities. The project has six objectives:

Objective 1: Evaluate the needs of professionals and K-12 students who read braille through an accessible online survey and focus groups.

Objective 2: Evaluate, revise, and expand the seven previously developed PD courses with an increased focus on equity.

Objective 3: Develop seven new PD courses, with five focused on UEB Math/Science, one on integrating technology into braille instruction, and one on using technology to create high-quality instructional materials.

Objective 4: Recruit and support a total of 600 professionals (150 per year, beginning in Year 2) in completing one or more PD courses.

Objective 5: Develop and offer five virtual programs to 100 diverse students (20 per year) that leads to increased knowledge and skills in Nemeth Code and/or UEB Math/Science.

Objective 6: Disseminate materials on the [Project INSPIRE website](#) and widely share project findings through conference presentations, published research articles, and social media.

Evaluation: Survey and focus group data, guidance from the Advisory Board, and input from the Student Panel will inform project activities. Pre/posttest scores will measure knowledge and skills gained by individuals completing PD courses and student programs. End of course/program surveys and focus groups will be conducted to evaluate the usefulness and effectiveness of the activities.

Dissemination: Project INSPIRE 2 materials will be available through the [Project INSPIRE website housed on the Paths to Literacy website](#). We will share our materials and research findings at conference presentations, in peer-reviewed articles, and on social media.