

CFDA 84.235E: Braille Training Program

Project INSPIRE: Increasing the STEM Potential of 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 - Project *INSPIRE* will increase the ability of professionals to transcribe high-quality materials in Nemeth Code within UEB Contexts (Nemeth Code) and UEB Technical. Professionals will also gain skills in how to instruct students in mathematical/scientific braille notation and support individuals who are visually impaired in STEM courses. In addition, students and youth who are braille readers will increase their skills in mathematical and scientific braille notation through an online *STEM Braille Boot Camp* culminating in a *STEM Braille Bowl Competition*. Together, these targeted activities for professionals and transition-age students and youths will lead to access and success in STEM subjects for students and youth with visual impairments. Project *INSPIRE*'s objectives are:

Objective 1: Evaluate the needs of professionals and transition-age youth who are braille readers through an accessible online survey and focus groups.

Objective 2: Develop, evaluate, and revise the *Project INSPIRE Curriculum* for professionals focused on (a) Nemeth Code, (b) UEB Technical, and (c) braille instructional methods.

Objective 3: Deliver the Project *INSPIRE Curriculum* through six online courses to 120 professionals each year.

Objective 4: Develop and implement a series of training opportunities for transition-age students and youth that lead to increased knowledge and skills in Nemeth Code and/or UEB Technical which in turn will allow students to successfully access STEM coursework, books, and materials.

Objective 5: Work with dissemination partners to post all procedures and materials and widely share project findings through social media, published research articles and conference presentations.

Evaluation – In Year 1, data from surveys and focus groups with both professionals and students will guide the initial development of curricula and training opportunities. Throughout the project, participants will complete pre- and posttests to evaluate the effectiveness and usefulness of the *Project INSPIRE Curricula* for professionals and training opportunities for students. This data will also document knowledge and skills gained through project participation. Annual surveys will document recipients' beliefs on the usefulness of project services. The advisory board will provide ongoing guidance to the Project team.

Dissemination – Procedures and materials developed by the *Project INSPIRE* team will be available through our three dissemination partners. Project findings will be widely shared through conference presentations, published research articles, and social media.