

Syracuse University

Making the Literacy-Innovation Connection for Rural Libraries and their Youngest Patrons

Statement of National Need and Project Goals. Rural communities across the United States face significant challenges that can serve as barriers to their future economic growth and to innovative solutions to problems that could make a difference. A report on rural libraries in the United States by the American Library Association (Real & Rose, 2017) notes that rural areas have the lowest home broadband Internet adoption rates, the lowest employment rates and economic growth rates, and the lowest educational attainment rates but suggests that “Rural libraries are part of the solution to addressing these concerns” (p. 1). Children from rural areas need to develop their innovative thinking skills starting from an early age so they are better prepared to tackle the issues that challenge their communities and contribute to economic growth. Additionally, many rural areas struggle to provide families with the support and resources needed to promote childhood literacy (Columbia University, 2017) that is essential to engaging in information seeking to solve problems and innovate. There are numerous projects that address childhood literacy and projects that encourage creative thinking in young children, yet few projects are designed with the express goal of strategically connecting a successful pilot literacy effort specifically targeting rural communities with an established innovation project. The goal of this National Leadership Grant: Community-Anchor pilot is to concurrently support both literacy and innovation skills in grades K-3 children by creating and evaluating a replicable after-school project in six public libraries. The literacy component features a carefully selected collection of paired literary and informational texts that inspire creativity and innovation. The books and reading will spark the creative thinking and innovation activities that follow. The project will leverage existing resources to create synergy and build on strengths while reducing project expenses. With Syracuse University as the lead organization, this 2-year project will partner with six rural public libraries in different regions of the country as well as By Kids For Kids and the CT Invention Convention. The project team is highly qualified to develop the project with a proven track record. Funding Requested: \$244,387; Cost Shared: \$104,041.

Project Design and Work Plan. The innovation facet of the proposed *Literacy-Innovation Connection* project will build on, create synergy with, and utilize the existing resources of a successful effort funded by IMLS for Grades 4-8 that resulted in the creation of *The Innovation Destination* website, launched at the 2017 American Association of School Librarians Conference in Phoenix, AZ. This resource (led by the PI and co-PI) currently includes innovation mentor training for Grades 4-8 librarians, a database of 500+ video clips from interviews on the innovation process with recognized Gr 4-8 innovators, lesson plans, and links to numerous innovation-related resources. The materials developed for the proposed project will be shared through *The Innovation Destination* in the form of lesson plans and activities. Lessons learned by librarians in the delivery of the program will also contribute to the expansion of the existing mentor training to help librarians serving the unique needs of children in grades K-3. The proposed project will also add 20 interviews/200 video clips with recognized K-3 inventors to the video database. These interview clips will be used in conjunction with program activities. The team will also develop a collection of 12 trigger videos featuring 10 of the young innovators from grades 4 – 8 sharing their advice with the younger children. These “older” young innovators, known as the “Inventor Mentors” will serve as an inspiration to the younger children. Once developed, the materials will provide the basis for the model after-school program in the six pilot rural public libraries.

Additionally, the literacy aspect of the proposed project will incorporate the lessons learned from a locally-funded 3-month exploratory project currently taking place under the direction of the principal investigator for the proposed project and the library director of a rural public library in Pamlico County with the assistance of the school librarian in the same rural district in North Carolina. The *My Little Home Library* Project is promoting reading interest and family literacy through its interactive after-school reading and nature-based activities program that also helps children build a home library; the program includes a strong family literacy component which we would include in the proposed project. When the parents of the participating children come to pick up their children after work (and some bring their other children), they stay for a 15-minute book sharing time and brief innovation activity with their children followed by dinner served by the library and prepared by the Friends of the Library organization. Parents are delighted to have an opportunity to not have to make dinner and children are delighted because their busy parents are taking time to read with them or listen to them as they share stories. The family literacy component is important to the proposed IMLS project

Syracuse University

because it acknowledges the positive impact that parents can make on children's attitudes toward learning and literacy when they take an active role in it. The Literacy-Innovation Connections project will reach out to families and caregivers to be a part of the program and parents will be honored for their contributions to the program. The literacy component will boost children's confidence in their ability as young innovators in later grades. As a culmination activity of the semester-length program, with the help of librarians, children will create digital stories individually or collectively about how they solved one or more problems/challenges through innovative thinking, to be published on CuriosityCreek.com, a free resource designed by the PI to stimulate curiosity in K-3 children. This will further expand the literacy element and recognition of accomplishments using an existing project that has an already developed infrastructure (for storytelling) and appeals to children. The project team will employ formative assessment throughout the program, eliciting feedback monthly from the six participating libraries in order to improve the program as it is rolled out.

The development of the Literacy-Innovation Connection for Rural Libraries program for this younger age group will focus on including real world, relevant problem-solving activities that children this age encounter at home, in the library, etc. Focus will be on the joy of discovery and the excitement of solving problems through librarian-created activities that include divergent thinking exercises, open-ended thinking challenges, applied imagination, children's discovery of their unique creative potential, perseverance in the face of challenge, building self-confidence in both reading and innovation, persistence on task, stimulating curiosity through what-if scenarios, risk-taking, and involving play in the creative process (e.g., games). These activities also will be a valuable addition to The Innovation Destination resource, shared with colleagues nationwide.

The technical goals of the project include: (1) expanding The Innovation Destination's current innovation mentor training to include K-3 (**Yr 1**); (2) interviewing 20 recognized K-3 child inventors / 200 video clips and producing 12 trigger videos for K-3 children featuring grade 4 – 8 inventors and added to The Innovation Destination database (**Yr. 1**); (3) adding 60 librarian-created brief innovation activities for K-3 to The Innovation Destination's teaching/learning resources; (4) developing (**Yr. 1**) and implementing (**Beginning Yr. 2**) a model after-school *Literacy-Innovation Connections* program in six participating rural libraries; (4) leveraging Curiosity Creek's infrastructure to add innovation stories created by participating children (**Yr 2**); and (5) refining and publishing the after-school *Literacy-Innovation Connections* program model for use by rural libraries nationwide (**End of Yr 2**). The participant project outcomes are: 1) Parents will spend more time reading with children and report children's reading improvement, 2) Children will demonstrate increased reading interest and confidence, 3) Children will be able to relate literary and informational texts to creative problem-solving challenges, some involving their local community and/or daily life, 4) Participating children will share their innovative ideas through their digital stories published on Curiosity Creek, and 5) Participating librarians will share their stories of the program effort for co-publication with the principal investigators increasing dissemination. A six-person advisory panel of two school librarians, two children's librarians, a science educator, and a mentoring expert will consult with and advise the project team. The project addresses IMLS' strategic plan because of its emphasis on preparing rural youth from an early age to contribute to the future economic viability of their communities and beyond through a combined literacy/innovation initiative.

National Impact. The potential for national impact is high if the program proves successful. The early years of kindergarten through grade 3 are critical to developing a trajectory toward success in later school years. Rural public libraries can work with school libraries to identify children who may be struggling readers and could benefit from a program that combines literacy with mentoring young innovators in developmentally appropriate ways, potentially helping to reduce the achievement gap between these children and their peers as they continue through elementary school and beyond. National impact can also be expected because this project builds on an existing, national, successful IMLS project, *The Innovation Destination*.

Sustainability. The Center for Digital Literacy has managed to sustain all its programs initially funded by IMLS or others demonstrating its ability to maintain efforts long after project completion and end of funding.

Budget Summary. Syracuse University is lead organization for the project. The total estimated budget request is \$244,387 with additional \$104,041 cost shared, including Project Team: Dr. Marilyn Arnone, PI; Dr. Ruth Small, co-PI; Tom Hardy, CEO, DataMomentum, Inc., Technical Director/Programmer (\$107,347); two Graduate Student Assistants (\$51,987); Partner Organizations, Participants and Advisors (\$22,000), Texts/Print (\$6,224), travel to two conferences by PI and co-PI (\$6,400) and Syracuse University's indirect costs (\$50,429).