

ABSTRACT

This two-year, 2019 Laura Bush 21st Century Librarian Project Grant-Lifelong Learning, Continuing Education project, with a start date of August 1, 2019 and end date of July 31, 2021, addresses the problem that, even with a variety of current existing training opportunities, thousands of librarians nationwide still lack the skills and knowledge necessary to effectively plan and implement services and programs for their patrons with disabilities and library directors and librarian trainers lack the expertise and resources to provide customized training for their staff. This project focuses on assisting in the professional development of librarians by creating training and train-the-trainer (TTT) learning opportunities and resources, using an innovative problem-based learning approach, to build the capacity of librarians to (1) meet the needs of their patrons with disabilities and (2) effectively train their staff in inclusive and accessible libraries and library services that meet the needs of patrons with disabilities. The target audience is school, public and academic librarians (including library directors) who want to be learn and be able to train their staff in this important area.

The project's intended outcomes are:

- (1) Participating librarians will have increased confidence in their ability to effectively serve the library and information needs of their patrons with disabilities.
- (2) Participating librarians will demonstrate an ability to effectively use project resources to develop and implement disabilities training for staff in their libraries or library systems.
- (3) As a result of dissemination efforts, librarians nationwide will demonstrate increased use of project resources and training opportunities over the two-year grant period.

Lead institution Syracuse University, partnering with Infopeople, will offer a suite of eight original, accessible resources for librarians to gain (1) the skills and knowledge to plan and deliver effective services to patrons with disabilities (training) and (2) the capacity to train others to do so (train-the-trainer). Deliverables include online courses, webinars, follow-up discussions, instructional support materials, and TTT guidelines. The central feature of these resources is a set of eight “trigger videos” intended to spark learners’ creative thinking and problem-solving abilities. The videos will feature 16 school, academic and public librarians, sharing common, authentic problems and challenges they have faced in serving their patrons with disabilities. These videos will be incorporated into new Infopeople courses and webinars and several other TTT deliverables. The project’s diverse and inclusive Project Advisory Committee (PAC), comprised of 10 experienced librarians and disabilities experts, will provide group and individual consultation to the project team while the project’s Review Committee of eight school, public and academic librarians will provide advice and feedback on all training deliverables at key points in their development.

All project training and TTT resources will be iteratively designed, allowing the project team to build, test, and revise deliverables throughout the grant period. When completed, all resources will be freely available on Syracuse’s *Project ENABLE* (**Expanding Non-discriminatory Access By Librarians Everywhere**), a widely-used disabilities training website for librarians, posted in a newly-created section, “Train-the-Trainer” and/or on the Infopeople training website with mutual links. Librarians, who use the project’s TTT training design tools and TTT resources and demonstrate their ability to successfully deliver customized disabilities training to their staff, will receive the project’s TTT certificate of achievement.

A variety of communication tools and strategies, including social media, professional listservs, conference presentations, journal publications, and a project blog and e-newsletter, will be used by the project team, advisors, librarian participants, and other, relevant IMLS-funded projects (e.g., Illinois State Library’s “Targeting Autism”) to disseminate information about and promote awareness and use of the project’s various activities and deliverables. Evaluation data will be collected using multiple methods (e.g., observations, site statistics, questionnaires, surveys) to determine the project’s impact.

Library Services to Patrons with Disabilities: A Problem-Based Learning Approach

This two-year, 2019 Laura Bush 21st Century Librarian Project Grant-Lifelong Learning, Continuing Education proposal, with a start date of August 1, 2019, focuses on assisting in the professional development of library staff who serve our nation by creating new training and train-the-trainer (TTT) opportunities for librarians, using an innovative problem-based learning approach to training on inclusive and accessible library services to patrons with disabilities. This proposal partners two collaborating organizations: (1) **Syracuse University**, capitalizing on and enhancing its existing disabilities training website for librarians, *Project ENABLE* ((Expanding Non-discriminatory Access By Librarians Everywhere)), as a “home” to the proposed project’s newly created suite of original TTT materials and communications vehicles and (2) **Infopeople**, the education/training branch of Califa, a nonprofit library membership consortium, to provide the proposed project’s TTT online courses, webinars and discussions. Both will have cross-links to all project deliverables. The project team also will work closely with members of the IMLS-funded *Targeting Autism* project team on dissemination efforts for this project. The partners request \$249,235 in funding and will cost-share an additional \$46,372.

1.0 STATEMENT OF BROAD NEED

The 2010 US Census reports more than 56 million people (19% of the total population) in the U.S. have a disability, with more than half identified as a severe disability. One in six children in the U.S. has a developmental disability (e.g. ADHD, autism, intellectual disability) (CDC, 2017), constituting large, neuro-diverse populations within our schools and communities.

ALA’s Library Services to People with Disabilities Policy states that “...Libraries play a catalytic role in the lives of people with disabilities by facilitating their full participation in society....” Though librarians exemplify inclusive values and practices, many have not had the opportunity to learn about accessibility issues, assistive technology, the needs of people with disabilities both as users and employees, as well as laws applicable to civil rights as they impact library services. Various providers of professional development, from national library organizations to individual libraries and library systems have sought to provide sufficient training to fill the knowledge gap, but yet the gap remains huge. For example, through its current, IMLS-funded *Targeting Autism* program, the Illinois State Library (ISL) has provided group forums, small group workshops and individual coaching to 200 librarians throughout Illinois, yet this represents only ¼ of the state’s librarians, and the need for training remains critical. This project focuses on training and then enabling librarians and library directors to provide disability training to their staff through a variety of innovative training materials and resources.

1.1 The Need for Libraries & Disabilities Training Continues

There have been many efforts to provide disabilities training to librarians over the past several years. Professional librarian organizations (e.g., the American Library Association) have offered workshops, courses and presentations to their members. State libraries, such as ISL, have offered ongoing programs and coaching to the librarians in their state. IMLS-funded *Project ENABLE* has provided cost-free, self-paced online training to nearly 19,000 pre-service librarians and in-service librarians, library administrators and library paraprofessionals. Yet, many thousands more remain deficient in this area and there has been no national “conversation,” in which librarians are able to share and discuss issues and ideas with each other and their communities. The needs the majority of library users with disabilities (and many more who may choose not to use libraries because of perceived lack of accessibility) remain unmet. A recent online survey sent to all Illinois librarians, indicated that nearly half (48%) of respondents admit they lack such skills and knowledge and 70% of them stated that they wish to provide customized, internal training to their staff but do not have the expertise or the resources to do so. (Schriar, 2019). The proposed project will offer (1) well-designed, free TTT opportunities to librarians nationwide through courses, online training, webinars and discussions and (2) a set of freely accessible, innovative problem-based learning materials, designed specifically for preparing librarian-trainers with the knowledge and resources to provide effective training to their staff in the area of libraries and disabilities.

2.0 PROBLEM-BASED DISABILITIES TRAINING

Much of the instruction available to librarians has been in the form of presentations, discussions, and activities. For example, Project ENABLE training, one of the most well-known and well-used online training sites focused on libraries and disabilities, was designed using well-established instructional design models that present information as layers/ideas, incorporating specific instructional components (e.g., examples, visuals, questioning, interactive activities, feedback) for interest, engagement and understanding [based on Reigeluth's Elaboration Theory (e.g., 1980), Merrill's Component Display Theory (e.g., 1983) and Keller's ARCS Model of Motivation Design (e.g., 2010)]. However, it (and most online and face-to-face training on this topic) lacks opportunities for learners to interact with the authentic, common challenges they face on a daily basis when serving the needs of patrons with disabilities, trying out various solutions to those challenges while receiving immediate feedback.

Problem-Based Learning (PBL) originally developed in the 1960's for use in medical education, advocates hands-on, active, constructivist learning strategies to investigate authentic, open-ended problems or challenges within a specific context. In PBL, learners (typically in groups) use both previous and new knowledge and experience to better understand the problem and to discover a range of possible solutions, while the instructor's role is that of facilitator, stimulating inquiry and supporting and guiding the learning process (Savery & Duffy, 1995; Barrows, 1996). The problem is often introduced through some type of triggering material, such as an authentic scenario (paper-based or video) presenting a problem or challenge whereby learners must use their creativity, critical thinking, problem-solving and research skills to identify solutions. The results of this process have been found to increase learning motivation and engagement, promote knowledge transfer and deepen understanding (Duch et al., 2001; Dempsey, 2001; Barrows, 1996). PBL can be used over an extended period of time (e.g., the case method over a semester) or as a trigger for starting a discussion during a single class session or workshop (Duch et al., 2001) and in online, face-to-face or blended learning situations.

Using a problem-based method for library disabilities training offers a new, innovative and impactful approach. This project applies Merrill's "First Principles of Instruction," (2002), a version of problem-based learning, in which learners (e.g. librarians) (1) engage in analyzing authentic, real-world problems (trigger videos) (2) integrate and apply both prior and new knowledge to solving the problem (e.g., resources, discussion, feedback) and (3) integrate their new knowledge through reflection and discussion (e.g., webinars, discussion sessions). Merrill's model also provides a framework for librarians when designing internal training for their staff.

2.1 Applying Problem-Based Learning to Libraries & Disabilities Training

PBL provides a professional development model that uses an authentic means to stimulate reflective, insightful, professional growth (Dempsey, 2001). This project will build on the strengths of the PIs' and co-PI's background and experience in instructional design, motivation, training development, and video production, and the resources available to them through *Project ENABLE*'s rich resource database and Infopeople's archived webinars, as well as other sources (e.g., *Targeting Autism* forum presentations). The project team will develop a set of problem-based learning "trigger videos" featuring real librarians presenting authentic, common problems they have faced when trying to meet the needs of their patrons with varying disabilities. *We focus more broadly on a variety of disabilities in order to be as inclusive as possible.* In addition, learning support materials that can be incorporated into the project's online course, webinars, discussions, and guidelines (for libraries who wish to create internal staff training) will be created, pilot tested and implemented. All of these are described in more detail in Section 3.2: Project Deliverables.

3.0 PROJECT DESIGN

The proposed project brings together a diverse (1) project team of experts from *Project ENABLE* in partnership with Infopeople, (2) 10 librarians and disabilities experts (including members of the *Targeting Autism* project team) as advisors, and (3) an additional 26 design librarians from across the country to help us create and test the project deliverables. Building on existing self-paced training resources (e.g., Project ENABLE) and instructor-led training (e.g., Infopeople), this free, train-the-trainer project, with problem-based learning as its core, is designed to meet the needs of individual librarians who are seeking ways to educate themselves and train their staff to transform their libraries into inclusive and accessible places for people with disabilities and

for library and library system directors. The proposed project also provides opportunities for librarians to broadly communicate and share their knowledge and experiences with each other.

Together, these three groups of people will (1) identify eight common problems or issues librarians face when addressing the needs of patrons with disabilities, (2) produce a series of authentic problem-based videos with 16 librarians who have created successful solutions to those problems, (3) create a suite of related problem-based instruction and instructional support materials (formatively evaluated by a Review Committee of eight librarians) and (4) a variety of interactive online options throughout the duration of the project, including webinars, facilitated discussions, electronic newsletters, a blog, and an online train-the-trainer course for librarians and library staff. The strategic dissemination of project information, via their various, well-known and well-established training sites and individual sources of communication, will greatly maximize the number and diversity of individuals who choose to learn, share and discuss how to best meet the challenge of providing high quality library services, programs and resources to *all* patrons.

3.1 Project Goals

The overarching goal of the proposed project is to introduce an innovative problem-based learning method of training for librarians who wish to transform their libraries into inclusive and accessible spaces with library programs, services and resources that accommodate their patrons with disabilities. Target goals and anticipated outcomes for school, public and academic librarians will expand and enhance existing training resources through problem-based learning approaches, providing guidelines and a variety of resources for creating customized, in-house training in individual libraries or library systems, and offering opportunities for librarians to share their learning, experiences and ideas with each other. Project enabling goals and outcomes are:

Goal 1: Awareness of a variety of common challenges school, public and academic librarians face when serving patrons with disabilities along with potential solutions to those challenges.

Outcome 1: Participating librarians profess increased confidence in their ability to effectively serve the library and information needs of their patrons with disabilities.

Goal 2: Mastery of Universal Design/Universal Design for Learning (UD/UDL) guidelines to apply to solving challenges facing services to library patrons with disabilities.

Outcome 2: Participating librarians demonstrate an ability to effectively use project resources to develop and implement disabilities training for staff in their libraries or library systems.

Goal 3: Expansion of sustainable online professional development options to foster inclusive library practices and accessibility.

Outcome 3: As a result of dissemination efforts, librarians nationwide demonstrate increased use of project resources and training opportunities over the two-year grant period.

In an effort to achieve the above outcomes, the proposed project focuses on 1) the design, development, iterative testing, revision, implementation and evaluation of an integrated and innovative multi-faceted, problem-based training initiative for school, academic and public librarians, 2) the use of *Project ENABLE* as a free, one-stop site for training, housing or providing direct links to the deliverables created through the proposed project, and 3) expanding outreach and resources through the synergy between two well-known and highly respected training organizations (*Project ENABLE* and Infopeople).

3.2 Project Deliverables

A comprehensive and coordinated training program on libraries and disabilities, based on the instructional design models described in Section 2.0 and consisting of the following *eight* freely available, inter-related, accessibility-compliant components, will be developed using a problem-based learning, iterative design approach, tested and marketed to librarians through existing and newly-created *Project ENABLE*, Infopeople and other dissemination channels, professional listservs, newsletters, social media outlets, and other outlets (see 5.0: Communication). All instructional components will incorporate and adhere to the most current Universal Design for Learning (UDL) guidelines, a framework for designing flexible, inclusive and accessible curriculum and instruction. (CAST, 2018).

The proposed TTT components are designed to support the development of in-house training programs by individual libraries and library systems, as well as to complement, support and/or reinforce existing training

programs in the area of libraries and disabilities. A description of each of the components (and its lead person, organization) is provided below.

1. A set of eight “trigger videos,” (i.e., 4-6-minute videos), intended to stimulate critical thinking and active discussions to successfully

face common challenges related to accessibility and inclusion, will be the central component of the proposed training and created in Yr 1. Eight problems or challenges affecting librarians’ ability to effectively serve their patrons with disabilities will be identified for video scenario development by the project team in consultation with the PAC. The videos will feature 16 diverse, practicing professional librarians (public, school and academic), selected because they have successfully faced one of the eight challenges. The 16 participating video librarians will be solicited through the project’s PAC and through recruitment announcements on professional listservs. Each training video will have two parts. In Part 1, the librarian describes an authentic problem scenario, followed by a discussion trigger text on the screen (e.g., “What ideas do YOU have for handling this situation?”). At this point, the instructor stops the video and facilitates a conversation among learners about possible solutions to the problem. Once the discussion is concluded, the instructor plays Part 2 of the video in which two librarians present successful, “tried & true” solutions they have used (and possibly some ideas that didn’t work and why), which the instructor can then use as a trigger for a second discussion on the merits of all suggested solutions. All videos will be edited for web use, transcribed, and closed-captioned and made freely available via the *Project ENABLE* and Infopeople websites, along with guidelines for incorporating them into disabilities training courses or workshops. (Lead: Co-PI Arnone, Syracuse)

2. A four-week TTT online course will be developed by Infopeople, in collaboration with subject matter expert and experienced disabilities trainer Mary Pelich, with input from the Syracuse team and PAC. The course will be hosted on Infopeople’s LMS – Moodle, to expand TTT opportunities. Content for the course will incorporate one or more of the problem-based trigger video situations and related support materials. Infopeople’s established development and delivery process utilizes a team approach (instructional designer, subject matter expert, technical support) to leverage skills and knowledge most effectively. Assignment options in the online course will provide learners the opportunity to put their knowledge into practice immediately, as well as receive feedback from the instructor. Support materials for the online course will include related articles, blog posts, videos, books, links to *Project ENABLE* content/activities, as well as templates, worksheets and discussion guides to assist in learner implementation and development of customized designs for staff training.

This course will be delivered in its entirety *two times* during the grant period (near the end of Yr 1, near the end of Yr 2). This will allow Infopeople staff and trainer to make any needed adjustments in content or format between deliveries as well as incorporate current discussions from the virtual community of practice. The course will be open to any library staff but will require an application process that includes supervisor/ manager approval. Preference will be given to those who will agree to lead a staff discussion/training on the topic following the course, which will disseminate the information even further. A certificate of completion will be provided for those completing course requirements along with communication to their supervisor/manager.

(Lead: PI Barnhart, Infopeople)

3. A series of three webinars along with three “community of practice” discussions will be developed with input on content from the Syracuse team and PAC and offered by Infopeople to librarians, whether or not they have taken the project’s online course. Infopeople’s online course instructor, Mary Pelich, will facilitate all webinars and discussions. Each of the three primary, hour-long webinars will be delivered on Infopeople’s GoToWebinar platform with the capacity to accommodate 500 participants for a total of 1,500 participants. Webinars will utilize some of the project’s trigger videos along with authentic problems and challenges that emerge during the online course (identified by the course instructor and from course evaluation feedback), of particular interest and/or in need of more in-depth learning. Based on that information, participants from each webinar will be invited to participate in a follow-up discussion for 25 participants (selected on first come-first served basis) for a total of 75 discussion participants, using an interactive GoToMeeting room that allows both audio and chat functions. Each discussion will be recorded, transcribed and archived, along with the chat transcript and a link will be sent to those who were not able to participate and will be linked to *Project ENABLE* for broader access. Webinars and discussions will occur in Yrs 1 and 2 (between the first and second online course deliveries). (Lead: PI Barnhart, Infopeople)

4. A selection of inclusive and accessible instructional support materials, developed in Yrs 1 and 2 by the Syracuse team, with input from Infopeople, PAC, and participating librarians, are intended for use by trainer-librarians to include at relevant points in their instructional designs for staff training. In addition to the trigger videos, the Syracuse team (with input from InfoPeople and PAC) will determine which materials (e.g., printable handouts, downloadable PowerPoints, hands-on, interactive individual or group games, exercises, or activities, assessment instruments) are most appropriate. These will include a mix of originally-produced, problem-based materials created by the project team and relevant, existing, fully-cited resources, stored or linked and accessible on the *Project ENABLE* website with links to/from Infopeople. (Lead: PI Small, Syracuse)

5. A set of 20 Pathfinders, created in Yr 2, and related to topics covered in the videos described above and other challenges identified by the project partners and PAC, and developed by the Syracuse team will focus on specific topics of interest, derived from those solicited from the project’s training participants, will identify relevant resources from 1000+ resources in the *Project ENABLE* searchable resource database. Pathfinder resources will include a broad range of formats (e.g., websites, journal articles, e-books, reports and videos). The 20 pathfinders will be stored and accessible on the *Project ENABLE* website with links from the Infopeople site. (Lead: PI Small, Syracuse)

6. A online newsletter, produced and edited jointly semi-annually in Yrs 1 and 2 by the Syracuse and Infopeople teams, will cover interesting and timely topics related to libraries and disabilities, distributed through *Project ENABLE* and Infopeople dissemination outlets and marketed four times during the grant period (approximately every six months) to professional listservs, library newsletters and social media channels. Topics will include updated project information and discussion summaries resulting from the proposed project’s activities, new and relevant issues in order to raise awareness, or other topics of interest, written by members of the project team, Project Advisory Committee (PAC), librarian participants, and/or contributing guest experts. Newsletters will be archived and available on the *Project ENABLE* site. (Leads: PIs Small, Syracuse and Barnhart, Infopeople)

7. A quarterly blog, currently existing and maintained on the *Project ENABLE* website, will be enhanced and maintained by the Syracuse team throughout the grant period and beyond. The blog will disseminate information and timely topics of interest raised through project events and activities. Blog posts will be authored by members of the project team, partners, PAC members and guest experts. All blog posts will be archived and available on *Project ENABLE* and through links from Infopeople. (PI: Small, Syracuse)

8. TTT planning and design guides (three guides, each developed specifically for academic, school, or public librarians) with fill-in, printable course and workshop templates for use by library trainers will specify critical considerations for creating customized, face-to-face or blended training designs throughout the instructional design process. They will be developed by the Syracuse team with input from Infopeople, and PAC. Guides will focus on tried-and-true strategies and “lessons learned” while implementing this project’s training components. The guidelines will use success-proven instructional and motivational design techniques, based on Merrill’s First Principles of Instruction and Keller’s ARCS Model of Motivational Design, to help trainers plan effective, motivating training programs and workshops for their library staff. These materials (and a “help line” for one-on-one consultation throughout the grant period and beyond) will be freely available through the *Project ENABLE* and Infopeople sites and linked to other training sites (e.g. *Targeting Autism*). Participating librarians who successfully demonstrate their ability to provide training to their staff will receive a certificate of achievement. (PI: Small, Syracuse)

A broad timeframe for development and implementation of these components is provided in Table 1 below.

Table 1. Broad Timeframe for Component Development and Implementation

PHASE 1	PHASE 2	PHASE 3
Research and Design (8/2019-1/2020)	Development, Implementation and Formative Evaluation (2/2020 -2/2021)	Summative Evaluation and Dissemination (3/2021 -8/2021)
-Start-up meetings with team partners, PAC -Determine topics and related interview questions for trigger videos - Identify and recruit 16 librarians for videos - Create online course outline, incorporating video topics - Finalize project evaluation plan. - Create links to-from Infopeople and other relevant websites (e.g., Targeting Autism) for mutual information sharing and marketing	- Record, edit, transcribe and close-caption 8 trigger videos - Fully develop course, support materials -Review/pilot all training products by Review Committee - Implement/evaluate initial online course, videos, support materials and revise for 2 nd offering implementation - Collect formative evaluation data via course evaluations - Expand Train-the-Training resources space on Project ENABLE site - Design Train-the-Trainer guides - Create/test/revise all project training and communication deliverables - Develop/deliver/evaluate webinars & discussions - Develop/test/revise/implement train-the-trainer guides - Write project interim report/deliver to IMLS (end of Yr1) - Promote/market project deliverables	- Collect <i>Project ENABLE</i> website statistics on use of project materials -Conduct outcome-based evaluation with all participants -Write final report -Add all program materials to <i>Project ENABLE</i> website -Disseminate findings and promote project resources' availability to the library profession - Update <i>Project ENABLE</i> resource database and train-the-trainer space, adding project materials Write final project report/delivers to IMLS (end of Yr 2) -Promote/market project deliverables

3.3 A Logic Model for Planning and Evaluation

The logic model below graphically depicts the situation the project addresses, assumptions, external factors, and how the project components will lead to project outcomes.

Table 2: Project Logic Model

SITUATION:					
A suite of inclusive and accessible problem-based training resources will be developed, tested and made freely available to librarians through multiple websites.					
INPUTS	OUTPUTS		OUTCOMES		
	Activities	Participants	Short-term	Medium-term	Long-term
-Project ENABLE and Infopeople project teams and PAC expertise -Graduate student design assistants -School, public and academic librarians -Existing infrastructure of <i>Project ENABLE</i> and Infopeople training websites - Learner access to required technologies	- Design/develop training, webinars - Train trainer -Design/develop all training components - Design/develop newsletter and blog -Recruit librarians for 16 trigger videos -Recruit participants in online courses, webinars and discussions	(<i>Those who benefit from inputs and program activities</i>) Librarian users of training and training components via <i>Project ENABLE</i> and Infopeople Patrons with disabilities	Knowledge and confidence gains for participating librarians Increased motivation to participate in inclusive library program/ services Increased motivation for librarians to sponsor inclusive programs and services	Intention by librarians continue to create and modify programs and services that accommodate patrons with disabilities after project completion Participating librarians seek new ways to use new knowledge and experience in their program designs	Participating librarians create new ways to use project training components in programs and services Increases in engagement in library activities by patrons with disabilities
ASSUMPTIONS			EXTERNAL FACTORS		
1. <i>Project ENABLE</i> and Infopeople have already established a training presence in the professional library community. 2. A significant percentage of practicing librarians lack training in the area of effective services to patrons with disabilities. 3. Librarians have a variety of learning styles that require a range of training options. 4. Librarians have sufficient technology skills to participate in or use proposed tech-based programs and learning resources.			1. Some librarians may find it difficult to allocate time to participate in training. 2. Some librarians may be resistant to participating in online training.		
EVALUATION PLAN:					
Evaluation will be on-going throughout the project and will include both formative and summative components.					

3.4 Project Resources

A project's resources are critical to its success. These resources include partners/key personnel, advisors, and

participants, as well as timeline and budget. All of the personnel below will work together to contribute to the design, development and evaluation, dissemination and promotion of project deliverables.

3.4.1 Personnel

Project Team. The project team consists of a strategic collaboration of key personnel from the two institutions, the Project Advisory Committee (PAC), the eight video librarians, and Review Committee.

Lead Institution: *Syracuse University (School of Information Studies)* is ranked the #4 top Library and Information Science Program by *U.S. World & News Report* and one of the oldest LIS programs in the U.S.

Ruth Small, Ph.D., PI, is Professor Emerita/Research Prof. and Founding Director, Center for Digital Literacy, Director of *Project ENABLE*, and co-director of *Targeting Autism*. She has published widely on libraries and disabilities and serves on the editorial board of *The International Journal of Information, Diversity, & Inclusion* (IJIDI). Ruth will manage all aspects of the proposed project, lead development of several of the deliverables, supervise the project grad assistant, direct the project evaluation, blog, newsletter, lead team, PAC meetings, and recruit librarian participants.

Marilyn P. Arnone, Ph.D., co-PI, is Associate Research Professor/Prof. of Practice, co-director of the Center for Digital Literacy, and served as Evaluation Vice- Chair for the Institute on Disability & Public Policy (IDPP) at American University. Marilyn has a strong background in television production (e.g., Producer, *Pappyland*, award-winning children's television series on The Learning Channel). Marilyn will oversee the development and editing of the trigger videos, participate in development of instructional support materials and training guidelines, contribute to the project blog and newsletter, and attend team and PAC meetings.

Tom Hardy, Technical Director, is CEO, Grants Systems, Inc. in Ithaca, New York and has served on several national, IMLS-funded projects with the Syracuse team (e.g., *Project ENABLE*, *S.O.S. for Information Literacy*, and *The Young Innovators Project*). Tom will work with the Syracuse team to manage the *Project ENABLE* website, including software development and required additions and modifications needed to create a dedicated TTT space, house project deliverables, and help develop interactive features.

Syracuse University Graduate Student Project Assistant (TBA) will provide support to the project team in the areas of research and documentation, scheduling, evaluation, outreach and reporting.

Partner Institution: *Califa Group/InfoPeople* is a nonprofit library membership consortium of more than 230 libraries in California. Infopeople has 20 years of experience providing Califa's on-ground and online Continuing Education and Professional Development opportunities to library staff throughout North America.

Lisa Barnhart, PI, is currently Training Coordinator for Infopeople, with responsibilities that include instructional design, new initiatives and recruiting subject matter experts. She was a librarian for over 30 years with the majority of her career focused on the development and delivery of training and learning for library staff in all formats. Lisa will lead the development, implementation and evaluation of the project's online course, webinars and discussion sessions, provide input on/contribute to other project deliverables (e.g., blog, newsletter), and participate in team and PAC meetings.

Mary Pelich, Adjunct Trainer, is currently part of the *Targeting Autism* forum team of Dominican University and ISL, training librarians throughout Illinois in effective ways to deliver programs and services to patrons with disabilities. Mary will serve as instructor/facilitator for the online course, webinars and discussions.

Project Advisory Committee (PAC): The following distinguished and diverse (e.g., racial, disability, age, gender, geographic location) group of 10 leaders, representing school public and academic libraries and disabilities experts nationwide, has committed to serving on the Project Advisory Committee for the two years of the project. Advisors will meet as a group virtually twice a year to review/provide ideas/feedback on design of deliverables, brainstorm topics for project newsletter and blog and be available to the project team, individually, for consultation in their area of expertise throughout the project. Each will be offered a modest honorarium for their service.

Carrie Banks, Director, Inclusive Services, Brooklyn (NY) Public Library; director of the Brooklyn Public Library's Child's Place for Children with Special Needs; co-author of "Including Families of Children with Special Needs" (ALA, 2014).

Russell J. Bonanno, M.Ed., Chief Executive Officer, LifeDesigns, Inc., a company that offers comprehensive services for people with disabilities (Bloomington, IN); former Director, The Autism Program (TAP) of Illinois;

Christine Casey, Ed.D., Assistant Superintendent of Schools (Curriculum & Instruction), Hawthorne Cedar Knolls Union Free School District (NY) and Executive Director, The Cedar Knolls Foundation, Inc.; former NY State Education Department Regional Associate for Special Education;

Tina Dolcetti, Children's Librarian, Moose Jaw Public Library, Moose Jaw, Saskatchewan, Canada

Rachel Combs, Public Services Manager, Science and Engineering Library, University of Kentucky;

Sujin Huggins, Ph.D., Associate Professor, School of Information Studies, Dominican University; co-PI *Targeting Autism* and host of the *Targeting Autism* forum.

Sue Kowalski, Librarian, Pine Grove Middle School, East Syracuse-Minoa School District (NY); winner of AASL's 2011 Library Program of the Year, 2016 *Library Journal* "Mover & Shaker";

William Myhill, J.D., Americans with Disabilities Act (ADA) Coordinator; Director of Legal Research, Burton Blatt Institute, Syracuse University; Attorney (NY);

Suzanne Schriar, Associate Director, Automation & Technology, Illinois State Library; Director, IMLS-funded *Targeting Autism* (ISL, Springfield, IL)

Daniel Weiss, Director, Fanwood Memorial Library and Co-Founder, *Autism and Libraries: We're Connected* (NJ).

Video Librarians and Review Committee. Sixteen (16) diverse school, academic and public librarians will be recruited and selected based on their experiences with specific problems identified for inclusion in the project's problem-based videos. An additional eight (8) librarians will be recruited and selected from our target audience to serve on the project's Review Committee (RC). The RC will formatively evaluate project deliverables iteratively as they are created. All will be offered a modest honorarium for their work.

3.4.2 Project Timeline

A top-level timeline for this two-year project is included in the table in Section 2.2 while the *Schedule of Completion* document detailing all the project tasks can be found in an attachment to this proposal.

3.4.3 Budget

The total requested budget is \$249,235, including \$190,309 in direct and \$58,926 in indirect costs. Direct costs include (1) key Syracuse personnel salary, wages and fringe to produce videos, guidelines, blog, support materials, manage/evaluate project, (2) conference travel costs, advisory committee and video and reviewer librarian costs (3) an Infopeople (via Califa) subcontract, including three facilitated, archived webinars and discussion groups, development/delivery of an online instructor-facilitated TTT course, development and maintenance of appropriate TTT content and materials, maintenance of a community of practice during the grant period, and creation of materials for facilitating continuing community discussions around inclusiveness and access. In addition to the grant funding request, \$46,372 in cost-sharing will be provided by the project partners.

4.0 EVALUATION

The Syracuse team's PI and co-PI are experts in the area of evaluation and share the philosophy that evaluation is critical to the ongoing development and improvement of high-quality library programs and services by providing evidence of success and deeper understanding of ways to turn failures into successes.

PI Small will lead the project evaluation effort, collecting data throughout the two-year grant period (and beyond). Iterative, formative evaluation data will be collected via online questionnaires from participating librarians in trigger videos, Infopeople courses, webinars and discussions, and users of project resources housed on the *Project ENABLE* site. These types of iterative data collection allow the project team to make changes and improvements *while the project is still in-progress*. Summative evaluation data will be collected using pilot-tested instruments (online survey, questionnaires, class exercises, instructor observations) to determine if project goals have been achieved. Web analytics will be performed to assess amount of usage and usage patterns of the project's web components. A detailed outcome-based evaluation plan is included below.

Table 3. Outcome-Based Evaluation Plan

Outcome #1: Participating librarians profess increased knowledge and confidence in their ability to effectively serve the library and information needs of their patrons with disabilities.

Indicators	Data Source	Data Intervals	Goal /Target
-Knowledge gains in ways to provide more effective programs and services to patrons with disabilities. -Increased confidence in their ability to provide effective programs and services to patrons with disabilities and training others.	-Brief evaluation questionnaire for librarian participants, administered after participation in course, webinars and discussions	-Before and after participation in online course, webinars and discussions	-At least 75% of participant librarians will report increases in their knowledge pre- and post-training participation -At least 75% of participating librarians will report an increase in their confidence pre- and post-training participation

Outcome #2: Participating librarians demonstrate an ability to effectively use project resources to develop and implement disabilities training for staff in their libraries or library systems.

Indicator	Data Source	Data Intervals	Goal/Target
-Number of certificates awarded to those participating librarians demonstrating their ability to successfully develop and deliver disabilities training for their staff	- Instructor observations - Class exercises - Brief course evaluation questionnaire - Project ENABLE website statistics - Online survey	End of Yr 1 (after Infopeople training and development of training resources and availability of train-the-trainer materials on Project ENABLE) End of Yr 2 (after Infopeople training and availability of train-the-trainer materials on Project ENABLE)	-At least 50% of librarians participating in project training will qualify for certificate by demonstrating an ability to use project resources to design and deliver disabilities training to their staff.

Outcome #3: As a result of dissemination efforts, librarians nationwide demonstrate increased use of project resources and training materials over the two-year grant period.

Indicators	Data Source	Data Intervals	Goal/Target
-Increase in use of project resources, archived courses, webinars and discussions, videos, support materials, pathfinders, train-the-trainer guides -Increase in visits to project blog and newsletter	-Project ENABLE site statistics - Online survey	- Six-month intervals throughout project	- At least 50% overall increase in use of course train-the-trainer materials for training their staff from end of Yr 1 to end of Yr 2 - At least 50% increase in visits to project blog and newsletter from end of Yr 1 to end of Yr 2 (Indicator 2)

5.0 COMMUNICATION

An aggressive dissemination effort by the project team, during and even beyond the funding period, is another critical factor for the success of this project. Communications activities will raise awareness and assure that project information reaches the broad library community. All will work together and separately to communicate project information and promote use of the project deliverables. The Syracuse team has a strong publication and presentation record and history of successful dissemination efforts for their funded projects, such as Project ENABLE which had close to 87,000 visitors in 2018 alone. (*Project ENABLE* site statistics). Some of the project's librarian participants may be invited to be co-presenters at professional conferences and co-authors of professional publications. The Infopeople team will disseminate project information through its website, five different library related listservs and social media outlets.

5.1 Communication Outlets for the Proposed Project

Dissemination of information for the proposed project demands the use of a wide variety of communication channels. Therefore, multiple existing and new channels will be activated and information about the proposed project and its outcomes will be disseminated through:

- articles in professional journals for both the broader audience of library practitioners and teachers (e.g., *American Libraries*, *Library Journal*, *Library Trends*) and those with a special interest in libraries and disabilities (e.g., *IJIDI*);
- presentations at professional library association conferences (e.g., PLA, AASL, ALA, ACRL);
- blog posts, including selected project participants, advisors, partners, and other guest bloggers on the Project ENABLE website's bi-monthly blog, with links to it from Infopeople and *Targeting Autism* sites;
- reports, announcements, and white papers via the *Project ENABLE* web sites, social media (Twitter, Facebook), librarian listservs (e.g., LM_NET, PubLib), and through e-newsletters and announcements from organizations focused on libraries and disabilities (e.g., *Targeting Autism* e-newsletter).

In addition to the range of planned project dissemination initiatives by the project team described above, the 26 participating librarians and 10 PAC members will extend our communication reach through their communities' print, media, web and other information channels to the profession. The addition of conversations and interactions by hundreds of librarian participants in the project's online webinars and discussions will also pave the way for building a "community of practice" in the area of libraries and disabilities, while increasing awareness of the project's various training options and resources.

6.0 DIVERSITY AND INCLUSION PLAN

While this project's focuses on accessibility and inclusion by serving the needs of a highly diverse population (people with disabilities), the project team also has identified a diverse, inclusive group of people to serve as advisors. The project team will continue to ensure diversity and inclusion in its selection of participating video librarians, Review Committee members, and blog and newsletter contributors.

7.0 BROAD IMPACT

The proposed project addresses the IMLS and ALA goals focused on serving underserved populations. The proposed project builds on existing IMLS-funded projects to increase the knowledge and expertise of public, school and academic librarians in the area of libraries and disabilities and to expand and extend their ability, through project guidance and resources, to provide training to their staff so that they can better serve the needs of their patrons with disabilities.

The active communication effort to distribute the project deliverables, through a variety of successful channels and platforms for distributing project training and materials nationally, strengthens the potential for even greater national impact. In addition, the Syracuse team has had a successful record of preserving and maintaining the digital content created for each of its previous projects. For example, the *SOS for Information Literacy* project has existed for almost 20 years with regular updates to preserve its content.

The project will use their outcome-based evaluation plan to track the results of the project. Methods used by evaluators and librarians will include site statistics, observations, interviews, course feedback, surveys, and questionnaires (using piloted protocols). Sustainability efforts will extend the life of this project beyond the grant period.

7.1 Sustainability

Previous evidence of ongoing commitment to this initiative beyond its grant period has been demonstrated by updates and additions by the Syracuse team to *Project ENABLE* since its funding ceased in 2012. Commitment and support to the proposed project will continue after the requested funding period has ended, focusing on: (1) continuation of the project's online communities of practice (e.g., archived webinars, discussions, blog) to support ongoing and new, future conversations by librarians, (2) maintaining the TTT help line beyond the grant period, and (3) ensuring the ongoing accessibility and free use of all project resources through a specially-created "Train-the-Trainer" section in *Project ENABLE*. Infopeople will sustain its contributions to the proposed project by transferring the online course content to a self-paced course, freely accessible to anyone, and providing links to relevant *Project ENABLE* resources and archiving all webinar content.

8.0 References (see Appendix)

Library Services to Patrons with Disabilities: A Problem-Based Learning Approach

Schedule of Completion

Activities	Aug. 1, 2019-Jan. 31, 2020	Feb. 1, 2020- July 31, 2020	Aug. 1, 2020-Jan. 31, 2021	Feb. 1, 2020 July 31, 2021
Conduct initial team/partner/PAC meetings				
Determine problem topics/questions for trigger videos				
Identify/recruit 16 librarians for videos				
Create problem-based online course outline				
Create TTT space on <i>Project ENABLE</i> site				
Finalize project evaluation and dissemination plans				
Record/edit/transcribe/close-caption 8 trigger videos				
Fully develop problem-based course/materials				
Create/formatively evaluate/revise TTT materials				
Develop project blog posts				
Implement/evaluate initial TTT online course/materials				
Revise TTT course/support materials for 2 nd offering				
Design/formatively evaluate/revise TTT guides				
Implement/evaluate 2 nd online TTT course/materials				
Develop/deliver/evaluate webinars & discussions				
Develop/test/revise/implement TTT guides				
Write project interim report/submit to IMLS (end of Yr1)				
Collect web statistics on use of deliverables				
Develop/implement project summative evaluation tools				
Add completed program materials to <i>Project ENABLE</i>				
Create links to-from <i>Project ENABLE</i> , Infopeople,				
Disseminate project resources to library profession				
Analyze data/report summative evaluation of results				
Write/submit final IMLS report				



DIGITAL PRODUCT FORM

Introduction

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to federally funded digital products (e.g., digital content, resources, assets, software, and datasets). The products you create with IMLS funding require careful stewardship to protect and enhance their value, and they should be freely and readily available for use and re-use by libraries, archives, museums, and the public. Because technology is dynamic and because we do not want to inhibit innovation, we do not want to prescribe set standards and practices that could become quickly outdated. Instead, we ask that you answer questions that address specific aspects of creating and managing digital products. Like all components of your IMLS application, your answers will be used by IMLS staff and by expert peer reviewers to evaluate your application, and they will be important in determining whether your project will be funded.

Instructions

All applications must include a Digital Product Form.

- Please check here if you have reviewed Parts I, II, III, and IV below and you have determined that your proposal does NOT involve the creation of digital products (i.e., digital content, resources, assets, software, or datasets). You must still submit this Digital Product Form with your proposal even if you check this box, because this Digital Product Form is a Required Document.

If you ARE creating digital products, you must provide answers to the questions in Part I. In addition, you must also complete at least one of the subsequent sections. If you intend to create or collect digital content, resources, or assets, complete Part II. If you intend to develop software, complete Part III. If you intend to create a dataset, complete Part IV.

Part I: Intellectual Property Rights and Permissions

A.1 What will be the intellectual property status of the digital products (content, resources, assets, software, or datasets) you intend to create? Who will hold the copyright(s)? How will you explain property rights and permissions to potential users (for example, by assigning a non-restrictive license such as BSD, GNU, MIT, or Creative Commons to the product)? Explain and justify your licensing selections.

A.2 What ownership rights will your organization assert over the new digital products and what conditions will you impose on access and use? Explain and justify any terms of access and conditions of use and detail how you will notify potential users about relevant terms or conditions.

A. 3 If you will create any products that may involve privacy concerns, require obtaining permissions or rights, or raise any cultural sensitivities, describe the issues and how you plan to address them.

Part II: Projects Creating or Collecting Digital Content, Resources, or Assets

A. Creating or Collecting New Digital Content, Resources, or Assets

A.1 Describe the digital content, resources, or assets you will create or collect, the quantities of each type, and the format(s) you will use.

A.2 List the equipment, software, and supplies that you will use to create the content, resources, or assets, or the name of the service provider that will perform the work.

A.3 List all the digital file formats (e.g., XML, TIFF, MPEG) you plan to use, along with the relevant information about the appropriate quality standards (e.g., resolution, sampling rate, or pixel dimensions).

B. Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan. How will you monitor and evaluate your workflow and products?

B.2 Describe your plan for preserving and maintaining digital assets during and after the award period of performance. Your plan may address storage systems, shared repositories, technical documentation, migration planning, and commitment of organizational funding for these purposes. Please note: You may charge the federal award before closeout for the costs of publication or sharing of research results if the costs are not incurred during the period of performance of the federal award (see 2 C.F.R. § 200.461).

C. Metadata

C.1 Describe how you will produce any and all technical, descriptive, administrative, or preservation metadata. Specify which standards you will use for the metadata structure (e.g., MARC, Dublin Core, Encoded Archival Description, PBCore, PREMIS) and metadata content (e.g., thesauri).

C.2 Explain your strategy for preserving and maintaining metadata created or collected during and after the award period of performance.

C.3 Explain what metadata sharing and/or other strategies you will use to facilitate widespread discovery and use of the digital content, resources, or assets created during your project (e.g., an API [Application Programming Interface], contributions to a digital platform, or other ways you might enable batch queries and retrieval of metadata).

D. Access and Use

D.1 Describe how you will make the digital content, resources, or assets available to the public. Include details such as the delivery strategy (e.g., openly available online, available to specified audiences) and underlying hardware/software platforms and infrastructure (e.g., specific digital repository software or leased services, accessibility via standard web browsers, requirements for special software tools in order to use the content).

D.2 Provide the name(s) and URL(s) (Uniform Resource Locator) for any examples of previous digital content, resources, or assets your organization has created.

Part III. Projects Developing Software

A. General Information

A.1 Describe the software you intend to create, including a summary of the major functions it will perform and the intended primary audience(s) it will serve.

A.2 List other existing software that wholly or partially performs the same functions, and explain how the software you intend to create is different, and justify why those differences are significant and necessary.

B. Technical Information

B.1 List the programming languages, platforms, software, or other applications you will use to create your software and explain why you chose them.

B.2 Describe how the software you intend to create will extend or interoperate with relevant existing software.

B.3 Describe any underlying additional software or system dependencies necessary to run the software you intend to create.

B.4 Describe the processes you will use for development, documentation, and for maintaining and updating documentation for users of the software.

B.5 Provide the name(s) and URL(s) for examples of any previous software your organization has created.

C. Access and Use

C.1 We expect applicants seeking federal funds for software to develop and release these products under open-source licenses to maximize access and promote reuse. What ownership rights will your organization assert over the software you intend to create, and what conditions will you impose on its access and use? Identify and explain the license under which you will release source code for the software you develop (e.g., BSD, GNU, or MIT software licenses). Explain and justify any prohibitive terms or conditions of use or access and detail how you will notify potential users about relevant terms and conditions.

C.2 Describe how you will make the software and source code available to the public and/or its intended users.

C.3 Identify where you will deposit the source code for the software you intend to develop:

Name of publicly accessible source code repository:

URL:

Part IV: Projects Creating Datasets

A.1 Identify the type of data you plan to collect or generate, and the purpose or intended use to which you expect it to be put. Describe the method(s) you will use and the approximate dates or intervals at which you will collect or generate it.

A.2 Does the proposed data collection or research activity require approval by any internal review panel or institutional review board (IRB)? If so, has the proposed research activity been approved? If not, what is your plan for securing approval?

A.3 Will you collect any personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information? If so, detail the specific steps you will take to protect such information while you prepare the data files for public release (e.g., data anonymization, data suppression PII, or synthetic data).

A.4 If you will collect additional documentation, such as consent agreements, along with the data, describe plans for preserving the documentation and ensuring that its relationship to the collected data is maintained.

A.5 What methods will you use to collect or generate the data? Provide details about any technical requirements or dependencies that would be necessary for understanding, retrieving, displaying, or processing the dataset(s).

A.6 What documentation (e.g., data documentation, codebooks) will you capture or create along with the dataset(s)? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the dataset(s) it describes?

A.7 What is your plan for archiving, managing, and disseminating data after the completion of the award-funded project?

A.8 Identify where you will deposit the dataset(s):

Name of repository:

URL:

A.9 When and how frequently will you review this data management plan? How will the implementation be monitored?