

TITLE

Information Literacy: Bridging the PK-20 Gap

PROJECT OVERVIEW

ODU is requesting **\$62,813** to support the project **Information Literacy Instruction: Bridging the PK-20 Gap**, an initial investigation aimed at identifying resources and research to support the continuum of information literacy instruction that spans PK-12 through college and university. This project explores the questions:

- 1) How can PK-12 and academic librarians support information literacy instruction for the Pk-20 learner?
- 2) In what ways can the language and purpose of written standards and guidelines be operationalized for PK-20 information literacy instruction?
- 3) What future training and resources are needed for school and academic librarians to increase knowledge on PK-20 information literacy instruction?

STATEMENT OF NEED

This funding opportunity addresses a key need to provide training and education to library professionals working in both PK-12 schools and community college and university settings. This large segment of information professionals are tasked with assisting all learners to locate, evaluate, assess, synthesize, cite, and make new meaning from available information beginning at an early age and continuing past high school graduation. By exploring the ALA published materials for PK-12 library professional and those working with learners beyond high school graduation, this project has the potential to improve information literacy instruction broadly. Therefore, this proposed project has far-reaching potential to impact the practice of school and academic librarians for a national audience, in all geographic and socio-economic communities.

The American Library Association puts forth professional standards for both the school library and college and academic libraries. These documents guide the practice of library professionals. Library standards are regularly updated to reflect changes in pedagogy and best practice. In 2018, AASL released the *National School Library Standards for Learners, School Librarians, and School Libraries*. These standards include the Framework for Learners, with information literacy instruction embedded within as learner competencies. In 2015 the ACRL division adopted a new guiding document on information literacy instruction, *Framework for Information Literacy for Higher Education*.

The proposed planning project extends the findings of a crosswalk developed to explore the American Association of School Librarians (AASL) *National School Library Standards Learner Framework* and the Association of College and Research Libraries (ACRL) *Framework for Information Literacy for Higher Education* (Burns, Gross, Latham, 2019). This research found multiple areas of only limited alignment between the two published documents. There is a lack of consistency in language between the two ALA documents as well as a lack of priority in educational intent for those who use the documents in instruction.

This proposed planning project will capture a broad perspective on information literacy instruction and the strengths and obstacles of implementation across the PK-20 continuum. This is an exploratory project aimed at capturing the perceptions of use and challenges to use PK-12

practitioners and academic librarians face in information literacy instruction. Though the crosswalk study was an initial exploration of how guidelines may suggest application and instruction of information literacy, (Burns, Gross, & Latham, 2019), the proposed project is ready to explore practitioner implementation as they infuse information literacy into practice. It allows for a broader, national discussion that captures collaboration efforts that may be beneficial when considering the information literacy across the PK-20 spectrum and the types of resources and curricula both school librarians and academic librarians may find beneficial for strengthening their understanding.

An early exploration of the ALA governing documents identified areas of strong alignment as well as gaps in information literacy instruction across PK-20 education. Areas that showed gaps in alignment include the emphasis on collaboration in PK-12 as well as different priorities focused on authority, targeted search strategies and perspective. There is also inconsistency in the language when referring to Information Literacy Instruction within the two sets of documents. To address these deficit areas, the proposed planning project will elicit feedback on strategies and resources that are perceived as successful in practice. This project intends to further explore these relationships and gaps and provide direction for additional resources and research. Areas of weakness will be considered for development in new and ongoing training courses for professionals.

The project will build a broader understanding of information literacy across the PK-20 continuum. There is currently no developed platform or mechanism to share resources among or between practitioners in these settings. Lack of a common platform for shared resources and training materials beyond preservice coursework and self-selected professional development sessions limit shared training materials. This leads to inconsistent collaboration, training and professional development. This project has the ability to strengthen information literacy instruction service across the United States by meeting the diverse educational needs of academic and school librarians.

SIGNIFICANCE

Librarians are typically trained to work with either PK-12 students or college and university level students. While many LIS programs will train both school librarians and those seeking a position in an academic library, the coursework required for each path may vary significantly. School librarians are often trained not only as library professionals, but as licensed teachers in many states. School librarians are prepared using the 2019 [CAEP/ALA/AASL School Librarian Preparation Standards](#). Due to the wide differences in PK-12 educational environments across the US, there are also large differences in how school library professionals engage in their schools.

Practicing school librarians must be able to effectively understand and use the developed learner standards and guidelines for the education profession. Information literacy is embedded as one set of skills within the Learner Framework of the AASL *National School Library Standards*. These standards further situate the school library within the larger education community and guide school library professionals in their instruction and engagement with students. In practice, school library standards are integrated within the context of the educational expectations of other national learning guidelines such as the Common Core State Standards (CCSS) and content

specific expectations (C3Framework for Social Studies, Next Gen Science Standards, ISTE standards). With information literacy instruction embedded throughout different educational standards, there are large differences in how school library professionals engage in information literacy instruction in schools. This study will solicit input from practitioners working in a variety of PK-12 settings.

Library professionals working with college and university level students do not have the same type of preparation standards. However, similar to school librarians, academic librarians may be presented with a wide array of experiences when teaching information literacy in their setting. The two most common situations include the “one-shot” instructional lesson and information literacy instruction as a credit-bearing course. Representative practitioners that have experience teaching in each type of format will be included in the sample to best explore the perceptions of a wide range of practitioners.

Very little has been done to promote conversation among library professionals, though PK-12 students progress to become college or university students. There is rarely cross-training between school and academic librarians in pre-service LIS coursework. In practice, professional development would rarely be developed to include both sets of professionals. Even less has been done to provide a set of resources that promote clear language and guidance establishing uniform information literacy instruction across PK-20. When developing information literacy guidelines for ACRL and AASL, the groups developing the documents for each division made no deliberate attempt to work together to produce documents with unified, consistent language.

The findings from this investigation of both academic and school librarians will inform next steps required for needed resources, training, and other supports that may be developed to move best practice forward. Additionally, it will suggest content and curricula needed for consistent training. Findings will serve as a marker for where the field currently stands in understanding information literacy instruction and will highlight a path forward for strengthening practice based on the professional standards.

PROJECT DESIGN

This planning project will address information literacy instruction at both the PK-12 and college and university level. It will investigate how to bridge information literacy instruction across the PK-20 continuum. This is an exploratory project that will explore the current information literacy instruction perceptions and practices of PK-12 school librarians and academic librarians working in community and university libraries.

Phase One: Instrument development and Piloting

Building on the findings of the crosswalk research (Burns, Gross, & Latham, 2019), a focus group protocol will be developed. This protocol will be developed in September, 2021. A small set of instructors who are experienced Pk-12 educators and who also teach a 3-credit undergraduate information literacy course will provide feedback for question validity and to help establish a reliable instrument.

Focus groups will be recruited through the professional listserv of the ACRL, to include the subset distribution community lists of the instructional librarians’ group, Educational and

Behavioral Sciences group, and (EBBS), community and junior college, and distance and online learning. The AASL divisions of the American Library Association, listserv will also be used to include the subset listserv of the Educators or School Librarians (ESLS) and the broad American Library Association listerv. An example informed consent email to be distributed is included below as an appendix.

Phase Two: Focus Groups and Analysis

Participants will be invited to participate in focus groups both online as well as during professional conferences. One focus group session will be held at the AASL National School Library Conference. A second focus group session will be held during the ALA Midwinter LibLearnX Conference. Additional sessions will be held in a virtual setting to allow for maximum participation and a diverse composition of participants. Focus groups will help identify strengths in practice and noted challenges and barriers to use of the each of the ALA developed documents. Perceptions of use of the AASL *Standards Framework for Learners* and ACRL *Framework for Information Literacy for Higher Education* will be explored in these focus groups. This exploration will allow the researcher to begin to identify suggested resources for collaboration among PK-20 practitioners.

Phase Three: Summer Workshop Development

Crosswalk and focus groups findings will be used to develop a summer 2022 workshop, for PK-12 and academic librarians, to further determine training and resource needs. The workshop will be led by the faculty contributor who is an experienced instructional librarian. She also develops information literacy instruction courses and content for a large Southeast university. This will be a ½ day face-to-face workshop, available to both school and academic librarians. It will be held on a university campus in Virginia just prior to ALA Annual Conference in Washington, DC. This timeline and location proximity will allow for potential greater and more diverse attendance. The content of the workshop will include strategies for each group to understand and effectively use the ALA documents with the goal of creating a cohesive PK-20 continuum of information literacy instruction.

Phase Four: Findings and Dissemination

In spring 2022, a website will be created to present early findings from the focus group analysis. This website will be used to invite participation for the on-site summer workshop. The researcher will share preliminary findings through a research presentation at the ALA Annual meeting in Washington, DC in June 2022. Findings will be finalized in fall 2022. These will then be shared on the project website as well as through public presentations and future developed research as described in the communications plan.

PROJECT OUTCOMES

Using a needs assessment perspective this planning project proposes four objectives:

- 1) to understand the current perspective of PK-12 and academic librarians in information literacy instruction at a national level
- 2) to assess information literacy instruction needs for collaboration across the PK-20 continuum
- 3) to identify potential resources and training required to facilitate this collaboration

- 4) to suggest curricula development for PK-12 school librarians and academic librarians on information literacy instruction that bridges PK-20 education.

To achieve these objectives, the researcher will conduct targeted focus groups with instructors who teach information literacy in both the PK-12 and college and university academic setting. Focus groups will include practitioners at the PK-12 level, the academic level, and practitioners who are instructors at both levels and have a unique perspective to share. Outcomes will provide direction for resource development and training in universities, state library workshops, and building an online resource repository. They will also identify research potential in information literacy instruction in the library field.

EVALUATION PLAN

To address the proposed research questions, qualitative interview research methods will be employed. As a research project, validity and reliability will be considered throughout. A focus group protocol will be developed in Fall 2021 considering the findings of the 2019 Crosswalk (Burns, Gross, Latham, 2019). A representative, convenience sample of practitioners will be asked to review the protocol. This pilot group will be a small set of school librarians who served as instructors for a credit-bearing information literacy course at a large university in summer 2021. The protocol will further be reviewed by two additional researchers working in the office of Diversity, Equity, and Inclusion at the university who specialize in culturally responsive pedagogy will review the instrument for implicit bias.

Focus groups will serve to highlight and provide depth to the perceptions and issues uncovered in the crosswalk analysis of the documents. They will also probe for insight on how to further facilitate collaboration and resources to strengthen the bridge for information literacy instruction between high school and community college or university. Transcribed data from focus group meetings will be coded using open coding and content analysis. All data will be checked by a second researcher for inter-rater reliability. This researcher, though not a grant co-participant, will participate as a co-author and researcher in publications of findings.

Indicators of success will begin with participation rates in focus groups. Solicited through a broad audience from various ALA listservs that reach a diverse geographic and regional pool, successful participation will include a cross-section of participants representing each geographic region of the United States, representation of urban and rural settings, as well as representation of various traditionally underrepresented groups.

This input will capture the broad impact and needs of a national group of practitioners, documenting their perceptions of success as well as identified need. Next, developed findings established will establish a clear path for future work. The venues for dissemination as outlined in the communication plan (see below) will further provide indicators of success. Analytics will establish interest in the project through website visits and journal downloads or citations and attendance may be documented at conference presentations.

COMMUNICATIONS PLAN

A simple WordPress website will be created to host content and communicate with those interested in this project as it is ongoing. This site will provide a repository for notices and

consent documents, as well as links to the focus group invitation, when active, in an effort to provide easy access for potential participants. This site will also include findings, outcomes, and preliminary results as they are available. This website will serve as a communication platform for the project. The site will also provide information and registration information for the on-site summer workshop.

Additionally, the project researcher will present findings from this project at professional conferences such as the American Library Association ([ALA](#)), the American Association of School Libraries ([AASL](#)), and the School Library section of the International Federation of Library Associations and Institutions ([IFLA](#)), as well as academic conferences such as Association for Library and Information Science Education ([ALISE](#)). Findings will also be submitted to academic and practitioner journals such as *School Library Research* ([SLR](#)) and *Knowledge Quest* ([KQ](#)) and journals for library educators, such as *Journal of Education for Library and Information Science* ([JELIS](#)) to reach a broad audience base. These materials will also be housed on the WordPress site and in the ODU digital repository.

DEMONSTRATED EXPERTISE

The lead PI was a member of the editorial board, competitively selected to write the *AASL National School Library Standards*. She has developed multiple training sessions at the national level to assist librarians and stakeholders use the Standards. Additionally, she has conducted initial work exploring information literacy instruction spanning PK-20. She has a demonstrated record of teaching and publishing using the suggested research methods. The faculty contributor is Lead Instruction Librarian for the university and lead Instructor of a general education Information Literacy course enrolling over 1,000 students each year. She teaches and oversees instructors of the course; many are also employed as school librarians.

DIVERSITY PLAN

Diversity issues will be addressed throughout the project. First, using the ALA and ALA Division affinity groups as a mechanism for focus group recruitment ensures a diverse geographic representation will be included in the potential sample. Participants in each division and affinity group represent all geographic regions of the United States. Additionally, diverse representation will be attempted, to the extent possible, to include participants from institutions that serve underrepresented groups, school size, and geographic location. Academic librarians will also be considered from institutions that serve traditionally underrepresented groups. Finally, a researcher with a background in diversity, inclusion, and equity will review focus group questions for bias.

NATIONAL IMPACT

Research suggests information literacy skills do not readily transfer from one setting to another in an academic setting (Grigg & Dale, 2017). It is critical that attention be given to creating common understanding in information literacy for students continuing from PK-12 through college and academic settings. The proposed project would allow for a national scan of Information Literacy Instruction practices and capture broad perspective on instructional strengths and needs.

The project will explore perceptions of school librarians who are implementing information literacy instruction as established by the *AASL National School Library Standards*. The AASL National Standards have been adopted or used as a framework for 22 states since their publication. Additional states have trained school librarians to use the National Standards. Learners in these PK-12 schools then progress to academic settings with these competencies framing their foundation in information literacy instruction. Rarely is there collaboration or connection to the next set of guidelines, the *ACRL Framework for Information Literacy*, the guidelines that will shape their information literacy interactions beyond high school. This project has the potential to suggest strategies that improve information literacy instruction for all PK-20 students.

Since there is a national disparity in library support to include funding, staffing, and a dedicated district-level administrative curriculum leaders or supervisors, implementation of information literacy instruction per the ALA established guidelines has thus far not been systematic. This project would allow for a national exploration of information literacy practice and capture broad perspective instructional strengths and goals independent of local level of support. It will suggest information literacy instruction strategies that improve library services for all PK-20 learners at a national level. This project will also direct training of both in-service and pre-service school librarians for a national audience.

EVIDENCE OF PROJECT SUCCESS

This planning project will assess current information literacy practice, areas for potential alignment and suggestions for collaboration and coordination across the PK-20 field. The researcher will solicit the input of diverse stakeholders to inform the development of these expected outcomes:

- a) Summary of perceived information literacy instruction needs by both PK-12 and academic librarians.
- b) Resource suggestions to enhance instruction for PK-12 and academic librarians.
- c) Strategies to facilitate collaboration among PK-20 information literacy instructors.
- d) Curricula suggestions for training workshops for both PK-12 and academic librarians.

The outcomes listed above will guide practice and research. These findings will assist in the identification of further resources and tools needed by library professionals challenged to implement information literacy instruction that bridges the PK-20 continuum. These outcomes will form a conceptual framework and provide future directions for research and theory for effective training grounded in collaborative training. The outcomes of this work and the resources suggested have the potential to improve information literacy instruction in both school and academic libraries.

This planning project will serve as an initial investigation for a larger project aimed at developing future research and resources. This project aims to **build capacity** through **sharing models of best practice and innovation**. The project will enhance the work practices of school librarians and academic librarians by encouraging collaboration and ensuring effective training with both the *AASL National School Library Standards* and the *ACRL Framework for Information Literacy for Higher Education*.

The project will use focus group data to document the perceptions and experiences of a national set of school and academic librarians experienced in information literacy instruction. Findings will document and operationalize how the field contextualizes the noted similarities and gaps in the guiding documents on information literacy instruction for both AASL and ACRL. These findings may suggest what is working, as well as what information literacy instruction strategies have not been successful in assisting learners as they bridge from PK-12 education to a community college or university setting. The data will identify common challenge areas, or barriers, so that future efforts and research can target these areas for improved success. Focus group discussions attempt to identify areas for development to improve collaboration and align information literacy expectations. Finally, focus group feedback will facilitate conversations on the types of resources that may be developed for further training. Resulting resource and curricula suggestions will provide a basis for professional development training as well as educational training across preparation programs throughout the United States. The impact will be nationally significant in determining the training needs and materials as identified by those in the profession.

SUSTAINABILITY

This planning project has the potential to provide data to extend into larger research projects. Research protocols will be developed and deployed on information literacy instruction across PK-20 settings. The findings of this project will be used to develop systematic collaboration practices for both school and academic librarians who are seeking training and development how to best meet the challenge of information literacy across the PK-20 bridge. The results developed from this project will be used to identify strategies and resources that have been successful and areas that need continued development for professional practice. In this way, further training and materials can be tailored to best serve the professionals who will use them.

The results of this project can be used to plan and develop the required training and resources for effective information literacy instruction materials that aid the PK-20 experience for learners. In order to develop training curricula and resources based on this planning grant's findings, the researcher will submit a full Laura Bush 21st Century Project Grant proposal. The MLIS Program at Old Dominion University is a leader in developing and delivering online content and curricula. Materials to meet the identified needs would be developed for wide distribution and would ensure a large population of librarians have access to these resources. This will lead to enhanced information literacy instruction practices nationwide.

APPENDIX: INFORMED CONSENT EMAIL

XX is conducting a study, *Information Literacy Continuum: Bridging the PK-20 Gap* to understand the perspectives and experiences of librarians who work across the K-20 continuum teaching information literacy skills. This includes an exploration of how both the AASL *National School Library Standards* and the ACRL *Frameworks for Information Literacy for Higher Education* frame our work. XX would like to interview practicing school librarians and those who work in an academic setting to explore the impact these guidelines have on student learning.

The purpose of this email is to invite your participation in this study and to provide information that may impact your decision about whether to participate. If you decide to participate, an email

response affirming your desire to participate is the only action you must take at this time. You will be contacted to set a day and time for an interview at your convenience.

RISKS: There are no known risks expected from participation. Information that could potentially identify you as a participant will be reported in a way that minimizes the risk of identification including the use of pseudonyms and altering of personal identification (such as work location).

BENEFITS/COSTS: The primary benefit to you for participating in this study is your contribution to the deeper understanding information literacy instruction in the field and to creating a better model by which to train information professionals.

CONFIDENTIALITY: The researcher will take reasonable steps to keep information confidential. The researcher will remove identifiers from the information and store information in a secure location. The results of this study may be used in reports, presentations, and publications, but individual participants will not be identified.

WITHDRAWAL PRIVILEGE: It is OK for you to say NO. At any point you may decide not to participate. Your decision will not affect your relationship with the researcher.

VOLUNTARY CONSENT: By responding in the affirmative to this email you are saying several things. You are saying that you have read this form, that you are satisfied that you understand this form, the research study, and the risks and benefits and any questions about the research have been answered. By responding to this email in the affirmative, you are telling the researcher YES, you would like to be contacted further about this study.

DIGITAL PRODUCT FORM

SECTION I: INTELLECTUAL PROPERTY RIGHTS AND PERMISSIONS

A.1 We expect applicants seeking federal funds for developing or creating digital products to release these files under open-source licenses to maximize access and promote reuse. What will be the intellectual property status of the digital products (i.e., digital content, resources, or assets; software; research data) you intend to create? What ownership rights will your organization assert over the files you intend to create, and what conditions will you impose on their access and use? Who will hold the copyright(s)? Explain and justify your licensing selections. Identify and explain the license under which you will release the files (e.g., a non-restrictive license such as BSD, GNU, MIT, Creative Commons licenses; RightsStatements.org statements). 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.

Works, materials, and publications, which are the products of this project, will be licensed under Creative Commons. Future use will be restricted to unaltered copies of the materials and all digital products and materials will be appropriately attributed and made freely accessible with non-commercial intentions. Copyrighted materials or works of project participants will be honored as expressed.

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.

Works, materials, and products of the project will be owned by the institution. Through the Creative Commons License as described above, conditions of use will be imposed and must be explained (see above). The Creative Commons labeling will be used to notify users of the terms and conditions for use of all materials:



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.

The project is not anticipated to raise concern for privacy or cultural sensitivities. If at some point deemed necessary, appropriate permission for participation will be obtained from all individuals.

SECTION II: 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 format you will use.

This project will not result in the development of digital training content. It will produce a white paper report that disseminates the results and findings

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

Microsoft Office and other HTML resources will be the primary tools used to create and format materials for dissemination. The project will use a focus group protocol and conduct some virtual focus groups to allow for greater diversity and representation in participants. These groups will be conducted using Zoom teleconferencing software with enhanced security. The recordings will be hosted on university servers. NVivo analysis software will be used during research analytics. Each of these are hosted by the institution.

A.3 List all the digital file formats (e.g., XML, TIFF, MPEG, OBJ, DOC, PDF) you plan to use. If digitizing content, describe the quality standards (e.g., resolution, sampling rate, pixel dimensions) you will use for the files you will create.

DOC, PDF, XML

B. Workflow and Asset Maintenance/Preservation

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

Focus group protocol and virtual groups will be conducted through a university-owned and maintained Zoom account. Protocol will be developed by the project PI. A pilot group will review the instrument for internal validity prior to use. Access to the focus group interviews will be made available only to the PI and Faculty Contributor, as it will be stored on a password-controlled university account. Both the PI and Faculty contributor have CITI certification on file through IRB. This study has initial approval for exempt status through the PI college IRB. If funded, the PI will seek university IRB status for compliance with a federally funded project.

B.2 Describe your plan for preserving and maintaining digital assets during and after the award period. Your plan should 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).

All collected data will remain on the PI University media account and made accessible as a data set for the intent of developing implementation materials and dissemination.

C. Metadata

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

Project leader and university possess expertise in information organization and analysis. Therefore, effective decisions can be made as needed in the creation of metadata structures and content whether using existing standards or specialized approaches for either internal use (if needed) or a repository system.

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

Metadata are expected to persist after the grant period without need for direct intervention or preservation.

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).

Project staff will consult with other experts in the area of digital resource preservation and access during and beyond the project period and appropriate steps will be taken to ensure the creation and compatibility of metadata for any new systems or tools selected as a repository for materials.

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, delivery enabled by IIIF specifications).

The project is a planning project and will produce a white paper to disseminate project-related information and materials to

others. Other opportunities, such as a university hosted web development platform, such as Wordpress could be used to strategically share findings with high levels of compatibility across browsers. Other strategically selected resources may be employed for making available curated resources that include both textual and multimedia content. Digital works will also be deposited in ODU Digital Commons at the time of their creation following creative commons licensing.

D.2. Provide the name(s) and URL(s) (Universal Resource Locator), DOI (Digital Object Identifier), or other persistent identifier for any examples of previous digital content, resources, or assets your organization has created.

Previous IMLS supported project, Nxtwave: IMLS #RE-02-13-0025-13 <http://www.nxtwave.org>

SECTION III. SOFTWARE

N/A this project is not creating software

SECTION IV: RESEARCH DATA

As part of the federal government's commitment to increase access to federally funded research data, Section IV represents the Data Management Plan (DMP) for research proposals and should reflect data management, dissemination, and preservation best practices in the applicant's area of research appropriate to the data that the project will generate.

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

Focus group data will be collected. This data will be used to inform future research, training and educational practice/programs. A focus group protocol will be developed in Fall 2021 and deployed in Winter 2021. Results will be transcribed and analyzed using qualitative analysis methods. This Information will be disseminated and used to inform next steps of implementation for the field in Summer 2022.

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?

The study has been put through college-level exempt status review. If funding is awarded, the study will be submitted to University IRB for compliance with federal funding. Typical time for review is 1 month. The PI has successfully submitted applications for IRB approval and has a current CITI compliance certificate on file.

A.3 Will you collect any sensitive information? This may include personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information. If so, detail the specific steps you will take to protect the information while you prepare it for public release (e.g., anonymizing individual identifiers, data aggregation). If the data will not be released publicly, explain why the data cannot be shared due to the protection of privacy, confidentiality, security, intellectual property, and other rights or requirements.

Any identifying information will be collected and used in aggregate.

A.4 What technical (hardware and/or software) requirements or dependencies would be necessary for understanding retrieving, displaying, processing, or otherwise reusing the data?

The data collection and analysis will be conducted using university supported computers and software. All work will be conducted on a university supported computer. University teleconferencing software will be used. Analysis will be conducted using secure university supported NVivo subscriptions.

A.5 What documentation (e.g., consent agreements, data documentation, codebooks, metadata, and analytical and procedural information) will you capture or create along with the data? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the data it describes to enable future reuse?

Informed consent information will be provided during recruitment of participants for focus groups. It will also be shared in writing and verbally at the start of focus group session.

A.6 What is your plan for managing, disseminating, and preserving data after the completion of the award-funded project?

All focus group interviews will be housed on the university server. All data will be shared in aggregate form. A white paper will be drafted and prepared to disseminate findings. This information will be presented at the ALA Annual Conference in June 2022. Findings will be deposited in the ODU Digital Commons and may further be available using a University supported Wordpress site if warranted.

A.7 Identify where you will deposit the data:

Name of repository: ODU Digital Commons

A.8 When and how frequently will you review this data management plan? How will the implementation be monitored?

This management plan will be continuously reviewed to ensure prompt, updated revision.