

**Expanding Access to Research Training for Academic Librarians (IRDL Online)**

The William H. Hannon Library<sup>1</sup> at Loyola Marymount University (LMU) seeks funding from the Laura Bush 21<sup>st</sup> Century Librarians Program (Continuing Education) totaling **\$248,299** for **Expanding Access to Research Training for Academic Librarians (IRDL Online)**, a project that will increase the availability of our successful research training and mentoring program for novice librarian-researchers, the Institute for Research Design in Librarianship (IRDL)<sup>2</sup> (funded by two previous IMLS grants). Funding from IMLS will enable the transition of the proven in-person training experience to a sustainable synchronous online format to provide access to a wider base of participants at a lower cost per participant. The curricular challenge will be to maintain effectiveness and research community-building in a completely online format. As part of this project we propose to create and administer the IRDL Scholars' Speaker Series and IRDL Online Research Conference to increase the impact of IRDL Online by extending research methods knowledge to more librarians. The project will allow us to continue to add to the body of research that we have shared about continuing education and other support factors that enhance research success and productivity among academic librarians.<sup>3</sup> We have focused on academic and research librarians because they have the greatest need to conduct and disseminate research; they have been the subject of the vast majority of research and express the most urgent need.

**STATEMENT OF BROAD NEED**

Academic librarians conduct and disseminate research for many reasons: to develop and thrive as professionals, to improve services and collections, and to document the impact of their work in libraries on the academic success of students and faculty. However, more than two decades of LIS studies reveal that academic librarians struggle to overcome barriers to research success, especially early-career librarians on the tenure-track and more experienced librarians in their first tenure-track positions. The need for research training and institutional support is especially acute for these early-career academic librarians (Ackerman, Hunter, & Wilkinson, 2018; Vilz & Poremski, 2015) (See Supporting Document 1 for References). Although many librarians see the value of becoming accomplished researchers, most enter the profession unprepared to conduct and disseminate research (Kennedy & Brancolini, 2012, 2018; Luo, 2011; Vilz & Poremsky, 2015). Although more than 63% of LIS degree programs require a research methods course (Luo, 2017, 49), one research course usually proves to be insufficient. Kennedy and Brancolini found that only 17% of librarians believe that their LIS master's degrees adequately prepared them to conduct original research (2018, 839). By the time most new librarians enter the professional field, adjust to their roles, and identify problems that may be addressed through research, the lag in time from any research training gained during an LIS program is often too great for them to feel confident in conducting research in the workplace. The challenges are similar for more experienced librarians beginning their first tenure-track job.

IRDL is designed to address this gap; it is a continuing education opportunity for academic and research librarians to broaden and improve their research skills and to increase their research output by focusing on completing a specific research project of their own design. IRDL is aligned with the IMLS Agency-level goals of promoting lifelong learning and building capacity; its design responds directly to the stated needs of working post-MLS/MLIS academic and research librarians (Kennedy & Brancolini, 2012, 2018). Over six years, IRDL trained and supported a diverse group of 134 librarians who are novice researchers from all types of academic libraries and research institutions, from 39 states and the District of Columbia. The year-long IRDL experience begins with a 9-day in-person Summer Research Workshop, followed by 11 months of online support and formal mentoring, as the Scholars work through their research projects. Through our assessments we learned that small-group and individual research consultations and formal research mentoring enhanced the content presented during the workshop. Demand for IRDL is high: we receive between 65 and 110 applicants for

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<sup>1</sup> <https://library.lmu.edu>

<sup>2</sup> <https://library.lmu.edu/irdl>

<sup>3</sup> Link to related research: <https://library.lmu.edu/irdl/about/>

approximately 22 places each year. Demonstrating expertise and replicability, in 2020 we transitioned the grant-funded IRDL to a fee-based (cost recovery) model, with a full cohort of Scholars. However, the Summer Research Workshop was cancelled due to the COVID-19 pandemic. Although it is our intention to continue offering IRDL with an in-person workshop, we also believe that an online version of the workshop would provide a valuable option.

One challenge with regard to the in-person IRDL is the cost of traveling to Los Angeles, food, and lodging during the Summer Research Workshop; the other components of the program are already virtual and relatively inexpensive. We heard from many IRDL participants that once the program moved from a grant-funded, free-to-participants program to a fee-based, cost-recovery model, librarians from their institutions would not be able to participate. For summer 2020, the cost to participate was \$3,200 with on-campus housing and \$2,100 without housing. Travel to Los Angeles was not included. We propose to create a completely online IRDL program by reimagining the Summer Research Workshop of IRDL for online delivery. The primary objective is to meet the needs of working librarians whose institutions cannot afford the fees and address sustainability issues by lowering the cost of the summer workshop. While the pandemic has negatively impacted travel and library budgets, we believe that even when travel resumes and budgets recover, a fully online program offers benefits. Due to family circumstances, some librarians may not be able to leave home for 9 days, even if the cost is borne by their library. However, we have learned from the IRDL Scholars that the in-person workshop offers structured community building activities and affective experiences that will be difficult to replicate online. With this grant funding we endeavor to create new opportunities for strengthening the research community of practice by developing two research methods events, a speaker series and a research conference.

**IRDL Online** will be free to Scholars and will allow us to expand each cohort from 22 to 30 Scholars, providing training and mentoring to 90 librarians over three years. IMLS funding will enable LMU, in collaboration with our strategic partner for six years, the San José State University (SJSU) iSchool to revise the curriculum and redesign the highly-effective training workshop for synchronous online delivery. With our long-time partner, Statewide California Electronic Library Consortium (SCELC), a regional library consortium of academic and independent research libraries, we will also create the **IRDL Scholars' Speakers Series** and **IRDL Online Research Conference**, both focused on introducing librarians to traditional and alternative research methods and facilitating the growing community of practice. With IMLS funding remaining from IRDL-2 (2016-2019), in spring 2021, a group of Scholars organized the IRDL Scholars' Speaker Series: *Thinking Critically about Research and Power*, "designed to shine a spotlight on voices and ideas that challenge traditional ways of conducting research."<sup>4</sup> Five speakers over five weeks in January and February attracted an average of 637 registrants for each presentation and moderated discussion. The IRDL Online Research Conference will complement the speaker series and will be the first research methods-focused conference of its kind in the United States. These related events are designed to create community and enhance research collaboration, which we have documented to be among the most valuable aspects of the program. The events also extend to a wider audience the opportunity to improve their knowledge of research methods.

IRDL Online addresses the stated needs of academic and research librarians to strengthen research skills and increase research productivity, while also offering the ability to participate without traveling to Los Angeles. The proposed project accomplishes these outcomes through engaged learning in a supportive environment:

- Through a synchronous two-week research workshop, provide instruction and one-on-one consultation so that each Scholar can confidently complete the research project of their own design;
- Through workshop activities coupled with year-long peer feedback and formal mentoring in the research process, foster an environment of collegiality and the development of a research community; and

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<sup>4</sup> <http://library.lmu.edu/irdl/speakerseries>

- Through the development of a speaker series and research conference, grow the research community beyond IRDL participants and extend knowledge of research methods.

There is strong support in the literature for librarians to pursue conducting research. An example is provided by Crumley and Koufogiannakis (2002, 61-62): “If [librarians] are encouraged to pursue research opportunities, not only will this enhance the literature base, but it will also allow librarians to conduct those studies best suited to their environment and time availability.” The proposed online program would 1) extend a continuing education experience to a larger cohort than could be managed in person and at a lower cost, maximizing the number of librarians prepared to confidently conduct their own research studies; 2) foster research collaboration through networking; and 3) extend continuing education opportunities focused on research beyond the three cohorts of Scholars through complementary program events.

### **Effectiveness of IRDL training model**

Using Albert Bandura’s theory of self-efficacy (1977) as a theoretical base, we have designed IRDL to address three of the four main sources of influence on self-efficacy: mastery experiences, social persuasion, and modeling. Mastery experiences build confidence through successfully learning new tasks and provide an individual with the ability to persevere in the face of obstacles, which is especially important in performing difficult tasks. Social persuasion consists of structuring situations in which an individual receives encouragement and experiences success in working through challenges. Modeling allows the Scholars to view the research process of the other Scholars in their cohort, as well as having access to a formal mentor who can provide accurate guidance on the research process. Over the course of IRDL and IRDL-2 we have designed multiple points of measurement to assess the efficacy of the entire program. Frans Albarillo also conducted a six-year assessment of IRDL and IRDL-2, “The Impact of the Institute for Research Design in Librarianship on the Research Productivity, Job Performance, and Identity as a Researcher of Program Participants: An Assessment Report” (Supporting Document 2). Described here are the measurements we made to test the programmatic effectiveness, with the three self-efficacy components in mind.

Research self-efficacy. Research self-efficacy – or research confidence – has been shown to be a predictor of research productivity. There is also some evidence that it is a mediating factor between the research training environment and research productivity. To explore the connection between research training and research self-efficacy, we developed, validated, and later expanded a scale to measure research self-efficacy among academic librarians, specifically testing the scale on the cohorts of IRDL. The scale was delivered to the Scholars as a pre-test, before their Summer Research Workshop training, and again immediately after completing the training, as a post-test. The confidence scores of all Scholars were statistically higher after the Summer Research Workshop. Increasing research self-efficacy is intended to increase the probability that the IRDL Scholars will complete their research projects and become accomplished, productive librarian-researchers. The study confirms that a measurement of research self-efficacy can be a useful tool in assessing the effectiveness of research training and improving that training; we plan to continue to use this measure going forward. We discuss the scale and its use in detail in Brancolini and Kennedy (2017).

Proposal evaluation. Participants submit a research proposal with their applications and then work on revising these proposals during and immediately after the summer workshop ends. These revised proposals are evidence of the workshop’s effectiveness in improving practical knowledge of the components of a research project. After the revised proposals are resubmitted near the end of the summer, we conduct a review process to compare the pre-workshop proposals (the proposal submitted as part of the application) with the post-workshop proposals (the proposal that is revised throughout the workshop). We invite a group of regional librarians to norm a rubric and then score the proposals. There has consistently been strong improvement from pre- to post-workshop, most notably in these components: research question design; methods design; and methods context, population, and sampling.

Personal networks. Each cohort of IRDL so far has had their own unique communication characteristics, from one cohort meeting at night to review the day's notes, using a whiteboard wheeled into a group study area, to another cohort chatting virtually, using a Slack channel. These informal collaborations reinforce learning and facilitate the development of a community of practice. We have studied the size and strength of the research networks of each Scholar, using social network analysis, to determine if participating in IRDL has an effect on the evolution of their personal networks during the IRDL year. In our results (Kennedy, Kennedy, & Brancolini, 2017), we observed evidence that a small network at the outset expands throughout the year of participating in IRDL. In addition, we have been delighted to discover many cross-cohort collaborations, some of which have led to major publications in our field (notably Fullington, West, & Albarillo, 2020).

Mentor program. In 2016, we began to examine formal mentoring as a research success factor. At that time, research mentoring was a well-established success factor in other practitioner-researcher professions, but had yet to be extensively studied in the LIS literature (Hoffmann, Berg, & Koufogiannakis, 2014). We added a formal mentor program to IRDL for 2017-2019, with scheduled one-on-one mentoring by an experienced and enthusiastic LIS researcher. Each Scholar is paired with a mentor who is a more seasoned librarian-researcher, with a plan to check in on a schedule for feedback and guidance on the Scholar's research project. The mentoring program has been widely appreciated by both Scholars and Mentors, with one notable comment from a mentor: "This was the most focused mentoring that I have participated in. My other experiences of mentoring have been more on-boarding of pre-tenured faculty. These guidelines and expectations were clear and manageable preventing any misconceptions of what the relationship was about." Based on the IRDL program, we have contributed to the literature on research mentoring in a forthcoming chapter, the first author of which is a previous IRDL Scholar and recent IRDL mentor (Jason, Kennedy, & Brancolini, 2021, in press).

Dissemination of research findings. A major objective for the Scholars is to complete their IRDL research projects and disseminate the findings. In the IRDL and IRDL-2 summative evaluation (Supporting Document 2, page 3), completed by 71% of the IRDL Scholars, we learned that this group had a high rate of completion and dissemination of their IRDL projects and other research, resulting in: 123 conference presentations (local, regional, national or international); 112 presentations at their local institution; the publication of 69 peer-reviewed articles, the presentation of 60 posters; the publication of 39 book chapters; and the presentation of 28 webinars. The goal of the IRDL Online Research Conference is to encourage librarian-researchers to present even preliminary results and methods papers.

## **PROJECT DESIGN**

### **Project Goals and Desired Outcomes**

The long-range goals of this project are to increase the number of high-quality research projects conducted and results disseminated in the field of information and library science; and to increase the number of librarians who are accomplished librarian-researchers. To meet these goals, we will create an engaging online learning experience adapted from the current in-person research workshop and revised to incorporate content suggested by IRDL Scholars during our summative evaluation. Knowing that community is a component of self-efficacy, we will encourage and support the Scholars to embed themselves in a community of practice that will last throughout their careers. Although IRDL focuses on established social science research methods, we will also offer insights into more experimental, emerging methodologies focused on decolonizing research methods. The IRDL Scholars' Speaker Series will explore these methodologies. To offer IRDL Scholars an opportunity to present their research progress and findings, we will offer the IRDL Online Research Conference, the first in the United States focused on the breadth of research methods employed by academic and research librarians.

As a result of participating in IRDL Online we expect the Scholars will be able to: 1) Confidently complete a research project of their own design; 2) participate in a broad community of practice that includes librarian-researchers from all types of academic libraries, community colleges, colleges, and universities; and 3) share the results of research in multiple venues (e.g., peer-reviewed publication, conference presentation).

## Project Activities

The central project activities will be to: 1) review the curriculum and learning activities from the IRDL/IRDL-2 Summer Research Workshop and re-design the workshop as a synchronous, online learning experience, employing best practices for building an online learning community (Year 1); 2) offer, assess, and revise the workshop, with a focus on effectiveness and sustainability (Years 1-3); and 3) provide ongoing research support through monthly check-ins, formal research mentoring, and other activities will support the work of the Scholars throughout the year-long continuing education experience (Years 1-3). The goal is for each Scholar to conduct their research project, analyze the data, interpret the results, and disseminate their findings within a calendar year. IRDL Online is designed to support a cohort of 30 academic librarians each year in the completion of a research project – for a total of 90 in three years.

During these three years the IRDL Online will:

- Deliver instruction during the Summer Research Workshop in areas needed to complete the research design for projects proposed by the Scholars. We will transition the IRDL experience from a partial in-person program into fully online program that supports the research success of the Scholar participants, convening three synchronous online training workshops, followed by a year of virtual support and mentoring. We will redesign assessment tools as appropriate for the change to an online format in order to ensure that the training received is sufficient for Scholars to confidently complete their research projects; apply these assessments and revise the workshop in Years 2 and 3 based upon assessment findings.
- Contribute to a growing community of research practice. We will design and offer two events in Years 2 and 3, the IRDL Scholars' Speaker Series and the IRDL Online Research Conference. The IRDL Scholars' Speaker Series, created with previous IRDL Scholars, will explicitly take a diversity/equity/inclusion approach to research methods, dedicated to presenting various topics, including specific research methods and critiques of processes associated with western social science approaches, with the intention of inspiring research explicitly rooted in social justice. The IRDL Online Research Conference will highlight excellent research design in LIS research, to be administered with our consortium partner SCELIC and its Program and Professional Development Committee.
- Foster an environment of collegiality and support in the research process. One possible barrier noted in the literature that may hinder a librarian from completing a research project is moral support. We aim to create an environment of collegiality, one in which the Scholars can learn and support each other throughout the year through monthly online check-ins and a closed Facebook Group. We will continue the formal mentor program which has been lauded by Scholars for its support through research challenges and the development of relationships with other like-minded researchers. A Scholar from the 2019 cohort notes that, "The IRDL folks not only taught me the research skills that were missing from my MLIS curriculum, but they welcomed me into a research community that gave me a sense of belonging and encouraged me to take risks."

## Transition the in-person Summer Research Workshop to an online model

The Summer Research Workshop is key to the entire IRDL program, launching the entire year-long experience that is the Institute. Its value vastly exceeds the mastery of the research methods curriculum. The curriculum and the instructional activities are important, but relationship building and the creation of community are equally important. The summative evaluation of IRDL (Supporting Document 2) reinforces our annual assessments. For many participants, the lasting impact on the Scholars' research identity, research productivity, and job performance derive from the support of the entire group for one another's success. This thorough evaluation has also provided us with suggestions for additional curricular content and ways to structure the monthly check-ins to help Scholars stay on track with their projects. The challenge will be to create an online workshop that both delivers the research methods content and fosters the creation of a research community. We acknowledge that relationship building is easier when 20 people all live, work, eat, and relax together for nine days on a university campus, away from the pressures of work and the responsibilities of family and home life. The instructional design team will thoughtfully reconsider each instructional unit in the curriculum, then create

asynchronous instruction and assignments to complement synchronous interactions with the instructors and one another. We will revise the list of course readings, handouts, lecture slides, and assessments.

An affective element of the workshop is fun: Scholars win prizes throughout the day if they answer questions correctly; groups win team prizes for collaboration; Scholars gain special badges for mastering elements of the research project; a table at the back of the room is filled with candy and snacks to treat themselves throughout the day. We hope to migrate to the online workshop the element of fun alongside a strong curriculum and support team. We cannot provide snacks but we plan to send a box of learning materials and prizes.

The year-long format for IRDL has been effective. It begins with the research workshop and introduction to the mentor program. The next eleven months are used as support of the Scholar as they administer their research projects; during these eleven months the Scholars are supported by informal peer mentoring as well as a formal mentor. The next iteration of IRDL will also be one year long, using the same structure.

An evaluative component with the transition to an entirely online program will be to again consider the length of the workshop training. The exit surveys of the participants from cohorts 1 and 2 of IRDL found that 76% of the Scholars rated the level of difficulty of being away from their home libraries for twelve days as neutral/easy/very easy. In IRDL-2 (2017-2019), we reduced the number of in-person workshop days to seven, in a cost-efficiency/sustainability effort. However, we anticipate that because the synchronous portion of the workshop will be delivered via Zoom, the days will be shorter, but the entire workshop will be longer, with 10 days of instruction in the morning from 9:00 to noon (PDT), Monday through Friday for two weeks in the summer, probably during June. This will give participants ample time for asynchronous activities; interactions with one another, perhaps in small groups; and to work on assignments. Participants in other time zones to the east will be able to attend the synchronous portion of the workshop before evening.

### **Facilitate the growing community of practice**

An impressive outcome of the first six years of IRDL training has been the research collaborations that have developed within and across cohorts that are sustained in the years following. A 2014 Scholar commented, “IRDL not only set me on the path to producing and properly documenting original research, but it set me up with a network of like-minded librarians who will help me achieve my goals.” A challenge of the redesigned program will be to maintain a high level of networking and collaboration while not being in the same physical space. There is precedent for the success of network building in a virtual space, as evidenced with the formal mentor program. A 2017 Scholar remarked about the mentor program, that “I think the structure, guidance, and clarity of expectations are all quite clear - I really like the emails with the prompts and check-ins to help guide and remind me.” As we transition to an online format for the entirety of the IRDL experience we plan to continue the formal mentor program and will also look for other ways for the cohorts to interact informally.

### **IRDL Scholars’ Speaker Series and Online Research Conference**

Our evaluation of IRDL and IRDL-2 revealed that some of the previous Scholars have forged strong research collaborations and others are eager to work together. They also want to expand their knowledge about research methods and the application of critical race theory to social sciences research. The result was the IRDL Scholars’ Speaker Series via Zoom in January and February of 2021. We propose making this a part of IRDL Online. In addition, a long-term aim of the IRDL program is to facilitate the dissemination of results of well-designed research projects through publication and presentation. During the year following the Summer Research Workshop we discuss with the Scholars the mechanics of the peer-review process, selection of an appropriate journal or conference, and publishing/presentation tips. We endeavor to raise the bar of quality publications in the journals in our field. We have been tracking the success of this aim on the IRDL website<sup>5</sup> to highlight the variety of topics and venues the Scholars seek for dissemination.

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<sup>5</sup> <https://library.lmu.edu/irdl/irdlcohorts/workscompleted/>,



To further support their dissemination efforts, we will design and convene the IRDL Online Research Conference. This conference will be held annually online (via Zoom or similar online meeting platform), with the specific structure to be determined. The conference will prioritize the presentation of scholarly works completed by librarian-researchers, with a spotlight on research design and methods. It is our expectation that through this conference the Scholars will practice externalizing their research questions, the method(s) selected to pursue answers to those questions, choices in analysis of resulting data, and summarization of findings. Over the last six years we have been experimenting with short-term research events, designing the SCEL Research Day program that includes speakers discussing their research and providing brief hands-on learning workshops (see the 2019 schedule,<sup>6</sup> which features the work of three IRDL Scholars). We are well poised to develop a full online research conference as a result of this experimentation and SCEL has the infrastructure to support it.

Both the IRDL Scholars' Speaker Series and the IRDL Online Research Conference will be offered at no cost to participants, open to anyone who wishes to attend. Previous IRDL Scholars will be responsible for the recruiting the scholars to present during the Speaker Series, introduce the speakers, and moderate the Q&A. These topics will address the expressed desire of previous IRDL Scholars to expand their knowledge of advanced and alternative research methods. The Research Conference program will be developed by the IRDL co-directors and the SCEL Program and Professional Development Committee; this group will choose the keynote speaker and research presentations, which will be appropriate for both novice and intermediate librarian-researchers. The conference will include a half-day hands-on workshop focused on a specific research method selected by the planning group; the workshop will be free for all IRDL Scholars and will be fee-based (nominal charge) for others who wish to attend. Participants in the conference and workshop can expect to leave with an understanding of the basics of selecting and using a research method and practical information like time management for research. The conference will include opportunities for networking and community building.

**Project timeline** (See the attached Schedule of Completion for key project activities and their timelines)

**Year 1 (9/2021-8/2022):** Reimagine and revise the existing workshop curriculum as online modules; redesign existing assessment tools for an online environment; recruit participants, conduct the first online Summer Research Workshop in 2022. Begin virtual monthly check-ins and formal research mentoring. Assemble coordinating group for the IRDL Online Research Conference and identify the goals for the event.

**Year 2 (9/2022-8/2023):** Assess modules of the workshop curriculum; adjust workshop content, based on assessment data; plan and conduct the first IRDL Online Research Conference to be held in the spring of 2023; recruit participants, conduct the second Summer Research Workshop in 2023.

**Year 3 (9/2023-8/2024):** Assess modules; adjust workshop content, based on assessment data; plan and conduct the second IRDL Online Research Conference in the spring of 2024; recruit participants, conduct third Summer Research Workshop in 2024. Assess modules; summarize and report findings.

### **Project personnel**

The current IRDL leadership team (Marie R. Kennedy, Serials and Electronic Resources Librarian at LMU, and Kristine R. Brancolini, Dean of the Library at LMU) will continue in their roles during this transition project. The IRDL Lead Instructor Lili Luo, Ph.D., Professor, San José State University iSchool, will lead the redesign of the summer workshop. The three of us created the IRDL curriculum and published a book designed to share what we learned from the first three years of IRDL, *Enhancing Library and Information Research Skills: A Guide for Academic Librarians* (Libraries Unlimited, 2017). She and Greg Guest, Ph.D., owner of Social Research Solutions, will teach the summer workshop. Darlene Aguilar, Instructional Design Librarian at LMU, will design and produce the asynchronous learning objects to be used in the "flipped classroom" synchronous online summer workshop. Coordinating support for the IRDL Online Research Conference will be led by Rick Burke, Executive Director of the Statewide California Electronic Library Consortium (SCEL).

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<sup>6</sup> <https://digitalcommons.lmu.edu/scelcresearchday/2019/>

### **Project estimated budget**

The IRDL project team will consist of a two-person leadership team working with an instructional designer, workshop instructors, content experts, former IRDL Scholars, and mentors. The estimated budget for this project is **\$248,299**. This will cover: Curriculum revision and instructional design (Year 1): \$10,000; instruction and assessment (Years 1-3): \$66,000; training packets, books, and handouts (Years 1-3): \$10,800; advisory board (Years 1-3): \$7,500; formal mentors (Years 1-3): \$45,000; workshop evaluation (Years 1-2): \$3,000; Speakers Series organizers and presenters (Years 1-3): \$21,750; Online Research Conference organizers and presenters (Years 2-3): \$8,500; and indirect costs (Years 1-3): \$75,749.

### **ASSESSMENT**

Project evaluation will be led by the Institute's assessment team, comprised of the project directors/co-investigators and the instructional design librarian. Evaluation will cover all aspects of the project, including the assessment of learning outcomes, overall effectiveness of the training workshop, and satisfaction with the mentor program. The IRDL Scholars' Speaker Series and IRDL Online Research Conference will be included in the assessment, focusing on the stated learning objectives and participant satisfaction.

Evaluation of the project will be ongoing. Formative evaluation will lead to changes in the workshop curriculum and our mechanisms to support Scholars throughout the project; the objective will be to gauge any adjustments as we proceed. After the completion of each year of the workshop training, we plan to review the design and make changes as we receive feedback from the Scholars and instructors. As a condition of participating in the fully-funded Institute, participants agree to contribute to the formative and summative project evaluations. Via surveys, one-on-one discussions, and focus groups, we will gather data from participants regarding their thoughts about the curriculum, what follow up support was helpful or lacking, what challenges they still face, and other issues. Many of the components of IRDL have assessments in place (as noted in the section "Effectiveness of IRDL training model") that will continue with this transitional project.

### **DIVERSITY PLAN**

From the outset of the program, we have intentionally created a community of practice that is inclusive in its design. Of the librarians who participated in the first six years of IRDL, 36% identified as persons of color. As in IRDL and IRDL-2, for this project each cohort will be chosen from a selective submission process, with an emphasis on enthusiasm for research and diversity from a variety of perspectives – geographic distribution, race/ethnicity, type and size of academic library, and work area within the library. We are especially eager to recruit racially and ethnically diverse librarians who may work in smaller libraries, where it may be more difficult to identify researchers who share their interests. Although research mentoring is important for all early-career librarians (Ackerman, Hunter, & Wilkinson, 2018), it has been identified as an especially important retention factor for academic librarians of color (Riley-Reid, 2017). The challenges of promotion and tenure for librarians of color have been well documented by Damasco and Hodges (2012) and Anantachai and Chesley (2018). We aim to directly address these challenges by continuing to develop a community of research practice in which librarians of color are supported throughout their scholarly careers.

We are committed to forming cohorts of Scholars that represent the diversity in our profession. We will recruit applicants from racially and ethnically diverse backgrounds by using both our own distribution lists and the email forums of groups that serve librarians of color. In addition, we will directly contact the chairperson of the ALA Black Caucus committee on Recruitment and Professional Development, the chairperson of the ALA Asian/Pacific American Librarians Association committee on Scholarships and Awards, the ALA Spectrum Scholarship Program (via ALA's Office for Diversity, Literacy and Outreach), the REFORMA committee on Education, and the President of ATALM, to ensure that their groups are aware of this continuing education opportunity for their members. Over the six years of IRDL, we appointed a diverse Advisory Board to assist with recruitment and selection of Scholars. We will use this advisory board again, drawn in part from the



programs and organizations noted above. We will reserve 40% of the spots each year for librarians of color. In addition, we will place special emphasis on selecting Scholars who propose to conduct research projects that explore diversity in library services, such as intersectionality, issues of gender, services to underserved communities, and people of color in librarianship. Finally, we will prioritize the inclusion of librarians employed at community colleges, liberal arts colleges, and small universities, who may not have the opportunities otherwise to participate fully in continuing education experiences and research communities.

Beyond recruitment and participation in the training workshops, we are committed to taking steps to ensure that the Scholars are supported throughout the year-long program. The diversity of our Advisory Boards and the six cohorts of IRDL Scholars has enabled us to recruit an equally diverse group of IRDL mentors. Following best practices for mentoring, we offer each Scholar a choice of two mentors. We have recruited mentors who represents many aspects of diversity. We are confident that we will be able to continue this practice.

As we reimagine the Summer Research Workshop curriculum content in an online format, we are committed to creating modules that are equally accessible for all Scholars, including those with disabilities. The instructional design librarian on the project team has a demonstrated commitment to both quality standards and instructional design principles for accessibility.

## **SUSTAINABILITY**

The path to delivering a quality learning experience in our current environment led us to plan a model that is wholly online. This three-year project will be focused on creating a research training workshop that achieves the effectiveness and level of satisfaction that the in-person workshop currently enjoys. The project co-directors have already designed a sustainable fee-based (cost recovery) model for the year-long program that includes an in-person workshop training experience, and will now adjust it to fit the program with online training and extended learning through the speaker series and conference. We believe that reducing the cost of IRDL to participants will ensure its continuing success, offering future participants two options: in-person or online.

As we move forward with future iterations of IRDL we will endeavor to provide an experience with the following five elements: 1) a learning component; 2) a practice component (a real project to complete); 3) affordable to institutions; 4) focus on novice researchers; and 5) commitment to the diversity of participants. We also seek to replicate in an online setting two affective overarching components of community building and a sense of fun and camaraderie.

The revision of the curriculum will be addressed at the onset of this grant, in collaboration with the lead instructors, to ensure that the critical components of a research project may still be completed within the two-week, half-day time frame we propose, finding the best mix of synchronous and asynchronous learning activities. We anticipate that our partner, SJSU, which has been fully online for many years, will be able to guide us in this planning and development. We are anxious to see what we might achieve together. IRDL and IRDL-2 have been highly commended by the participants, Mentors, Advisory Board, and peers in the research community. They lend their voices of support to continue the project, as evidenced in Supporting Document 3.

## **BROAD IMPACT**

Our proposed Project has the potential for major national impact in two ways: first, by increasing that number of successful librarian-researchers confident in their research skills and energized to participate in an inclusive community of like-minded professionals; but second, through the research produced about IRDL Online itself, which contributes to knowledge the factors that affect research success and productivity among academic librarians. We know through our program assessments and recent summative evaluation that IRDL has produced ripple effects throughout libraries and the profession. Most IRDL research addresses work-related issues, supporting evidence-based practice. Librarians begin to see themselves and their roles on campus differently, reporting increased confidence and skill in conducting their own research and in supporting faculty

and graduate student research. Some have become research mentors themselves. Some have formed durable relationships with one another as research partners and co-authors. These quotations are representative:

“Because I attended IRDL in the early stages of my tenure track, I feel like it has propelled my research agenda forward. I had vague ideas of what I wanted to research before but this experience has really set me on a path to succeed in my research. The amazing support and encouragement from the program coordinators, instructor, and fellow scholars have given me momentum and energized my research agenda that I hope will continue far into the future.”

“The IRDL process was beneficial in providing exposure to research methods and making me think more critically about the research I read and the research I do. It was also very beneficial in terms of meeting others who were interested in research. I’ve collaborated on presentations and publications with people I met at IRDL.”

“IRDL has instilled in me a greater sense of confidence. I feel more comfortable asking my colleagues for help and reaching out to others to seek collaborative research opportunities. Have participated in conversations with non-library faculty in which I have felt part of the discussion (regarding data analysis) because I have conducted original research (via my IRDL project). I now feel more creatively inspired and can generate ideas for potential research projects more readily since attending IRDL, and I feel that I have gained enough experience from IRDL to attempt such projects. IRDL has opened the door to a professional pathway that I did not feel attainable to me prior to my participation.”

In the early research on librarians as researchers, most of the emphasis was on identifying research barriers, in order to help remove them. Recently, researchers have turned their attention from the research barriers to research success factors. IRDL was designed with those success factors in mind (Hoffmann, Berg, & Koufogiannakis, 2014, 2017): education and experience, confidence (research self-efficacy), mentoring, time, and community. We have produced a substantial body of research related to IRDL, which has also informed the direction of IRDL, both in the early planning stages and in revisions.<sup>7</sup> Our program assessments enabled us to enhance and improve the IRDL experience during the Summer Research Workshop. We will be studying the new online component and use it to improve the experience for Scholars, and also present and write about our findings, to share what we learn. Tenure-track librarians experience higher levels of stress than non-tenure track librarians (Galbraith, Fry, & Garrison, 2016) and identify pressure to produce research as a major source of stress (Cameron, Pierce, & Conroy, 2020). IRDL Online will contribute to alleviating this stress.

## **CONCLUSION**

Academic librarianship is a unique profession. Approximately one-half of all academic librarians are required or expected to conduct research. This is unacknowledged by our LIS master’s programs and often poorly supported by library administrators and home institutions. We created the IRDL to reinforce research supports and to overcome documented research challenges. The Summer Research Workshop that kicks off each Scholar’s IRDL year is critical to their success. However, the cost of the on-site workshop and the lessons of remote learning gleaned from the pandemic pivot to online learning encouraged us to seek an online alternative. The expressed need from IRDL Scholars for more advanced training in research methods, including evolving methodologies that integrate anti-racist and anti-colonial practices, led us to add the speaker series and methods conference. Even though participants are novice researchers, they are eager to try new methods and sensitive to criticism of traditional research methods. Our goal is to give more librarians the tools, confidence, and knowledge they need to contribute scholarship to our profession and to advance their careers.

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<sup>7</sup> Link to IRDL-related research: <https://library.lmu.edu/irdl/about/>

## SCHEDULE OF COMPLETION

**Duration of Project: *September 1, 2021-August 31, 2024***

### **Year 1: September 1, 2021-August 31, 2022**

#### September 2021

- Convene Summer Workshop curriculum redesign team (Project Directors and redesign team members) [work continues through May 2022]
- Recruit Advisors for Board (3-year term) (Project Directors)
- Convene 2022 Scholars' Speaker Series organizing committee (Project Directors and IRDL Scholars) [work continues through March 2022]

#### November 2021

- Solicit Mentors for 2022 Scholars (Project Directors and Advisory Board)
- Update IRDL website with application materials (Project Directors)
- Convene 2022 IRDL Online Research Conference organizing committee (Project Directors, Scholars, and SCELC) [work continues through September 2022]

#### December 2021-February 2022

- Recruit IRDL 2022 applicants (Project Directors and Advisory Board)
- Review applications and select Scholars (Project Directors, in consultation with Advisory Board)

#### March 2022

- Notify Scholars of acceptance to the Institute (Project Directors)
- Conduct 2022 IRDL Scholars' Speaker Series (Project Directors and IRDL Scholars)
- Hold orientation for 2022 Scholars (Project Directors)
- Hold orientation for 2022 Mentors (Project Directors)

#### April 2022

- Recruit Summer Workshop Evaluator (Project Directors)

#### June 2022-August 2022

- Conduct 2022 Summer Research Workshop (Project Directors, Instructors, Evaluator, Scholars)
- Launch post-workshop Mentor Program and monthly check-in sessions (Project Directors, Mentors)
- Conduct evaluation of Summer Workshop, focused on Institute Scholars (Project Directors, Instructors, Evaluator, Scholars)
- Analyze results of the assessment of learning outcomes and evaluation of the Institute (Project Directors, Instructors)
- Develop work plan for incorporating changes going forward (Project Directors)
- Formally evaluate the entire first year of the project and submit progress report to IMLS (Project Directors)

### **Year 2: September 1, 2022-August 31, 2023**

#### September 2022

- Re-convene Summer Workshop curriculum redesign team to adjust based on evaluation (Project Directors and redesign team members) [work continues through May 2023]
- Convene 2023 Scholars' Speaker Series organizing committee (Project Directors and IRDL Scholars) [work continues through March 2023]

#### October 2022

- Conduct 2022 IRDL Online Research Conference (includes ½ day training workshop)

#### November 2022

- Solicit Mentors for 2023 Scholars (Project Directors and Advisory Board)
- Update IRDL website with application materials (Project Directors)
- Convene 2023 IRDL Online Research Conference organizing committee (Project Directors, Scholars, and SCELC) [work continues through September 2023]

#### December 2022-February 2023

- Recruit IRDL 2023 applicants (Project Directors and Advisory Board)

- Review applications and select Scholars (Project Directors, in consultation with Advisory Board)

March 2023

- Notify Scholars of acceptance to the Institute (Project Directors)
- Conduct 2023 IRDL Scholars' Speaker Series (Project Directors and IRDL Scholars)
- Hold orientation for 2023 Scholars (Project Directors)
- Hold orientation for 2023 Mentors (Project Directors)

April 2023

- Recruit Summer Workshop Evaluator (Project Directors)

June 2023-August 2023

- Conduct 2023 Summer Research Workshop (Project Directors, Instructors, Evaluator, Scholars)
- Launch post-workshop Mentor Program and monthly check-in sessions (Project Directors, Mentors)
- Conduct evaluation of Summer Workshop, focused on Institute Scholars (Project Directors, Instructors, Evaluator, Scholars)
- Analyze results of the assessment of learning outcomes and evaluation of the Institute (Project Directors, Instructors)
- Develop work plan for incorporating changes going forward (Project Directors)
- Formally evaluate the entire second year of the project and submit progress report to IMLS (Project Directors)

**Year 3: September 1, 2023-August 31, 2024**

September 2023

- Re-convene Summer Workshop curriculum redesign team to adjust based on evaluation (Project Directors and redesign team members) [work continues through May 2024]
- Convene 2023 Scholars' Speaker Series organizing committee (Project Directors and IRDL Scholars) [work continues through March 2024]

October 2023

- Conduct 2023 IRDL Online Research Conference (includes ½ day training workshop)

November 2023

- Solicit Mentors for 2024 Scholars (Project Directors and Advisory Board)
- Update IRDL website with application materials (Project Directors)
- Convene 2024 IRDL Online Research Conference organizing committee (Project Directors, Scholars, and SCELC) [work continues through September 2024]

December 2023-February 2024

- Recruit IRDL 2024 applicants (Project Directors and Advisory Board)
- Review applications and select Scholars (Project Directors, in consultation with Advisory Board)

March 2024

- Notify Scholars of acceptance to the Institute (Project Directors)
- Conduct 2024 IRDL Scholars' Speaker Series (Project Directors and IRDL Scholars)
- Hold orientation for 2024 Scholars (Project Directors)
- Hold orientation for 2024 Mentors (Project Directors)

June 2024-August 2024

- Conduct 2024 Summer Research Workshop (Project Directors, Instructors, Evaluator, Scholars)
- Launch post-workshop Mentor Program and monthly check-in sessions (Project Directors, Mentors)
- Analyze results of the assessment of learning outcomes and evaluation of the Institute (Project Directors, Instructors)
- Conduct evaluation of entire project, focusing on successful strategies; finalize options to continue the Institute beyond the grant period (Project Directors)
- Draft final project reports and post them to project website (Project Director)

Schedule of Completion Year 1: September 1, 2021 - August 31, 2022												
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Convene Summer Workshop curriculum redesign team												
Recruit Advisory Board (3-year term)												
Convene 2022 Scholars' Speaker series organizing committee												
Solicit Mentors for 2022 Scholars												
Update IRDL website with application materials												
Convene 2022 IRDL Online Research Conference organizing committee												
Recruit IRDL 2022 applicants												
Review applications and select Scholars												
Conduct 2022 IRDL Scholars' Speaker Series												
Orientation for 2022 Scholars												
Orientation for 2022 Mentors												
Recruit Workshop Evaluator												
Conduct 2022 Summer Research Workshop												
Launch post-workshop Mentor Program and monthly check-in sessions												
Workshop evaluation												

Schedule of Completion Year 2: September 1, 2022 - August 31, 2023												
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Summer Workshop and programmatic adjustments												
Advisory Board meeting												
Convene 2023 Scholars' Speaker series organizing committee												
Conduct 2022 IRDL Online Research Conference												
Solicit Mentors for 2023 Scholars												
Update IRDL website with application materials												
Convene 2023 IRDL Online Research Conference organizing committee												
Recruit IRDL 2023 applicants												
Review applications and select Scholars												
Conduct 2023 IRDL Scholars' Speaker Series												
Orientation for 2023 Scholars												
Orientation for 2023 Mentors												
Recruit Workshop Evaluator												
Conduct 2023 Summer Research Workshop												
Launch post-workshop Mentor Program and monthly check-in sessions												
Workshop evaluation												

Schedule of Completion Year 3: September 1, 2023 - August 31, 2024												
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Summer Workshop and programmatic adjustments												
Advisory Board meeting												
Convene 2024 Scholars' Speaker series organizing committee												
Conduct 2023 IRDL Online Research Conference												
Solicit Mentors for 2024 Scholars												
Update IRDL website with application materials												
Convene 2024 IRDL Online Research Conference organizing committee												
Recruit IRDL 2024 applicants												
Review applications and select Scholars												
Conduct 2024 IRDL Scholars' Speaker Series												
Orientation for 2024 Scholars												
Orientation for 2024 Mentors												
Conduct 2024 Summer Research Workshop												
Launch post-workshop Mentor Program and monthly check-in sessions												
Workshop evaluation												
Summarize and report findings												



## DIGITAL PRODUCT FORM

### INTRODUCTION

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to digital products that are created using federal funds. This includes (1) digitized and born-digital content, resources, or assets; (2) software; and (3) research data (see below for more specific examples). Excluded are preliminary analyses, drafts of papers, plans for future research, peer-review assessments, and communications with colleagues.

The digital products you create with IMLS funding require effective stewardship to protect and enhance their value, and they should be freely and readily available for use and reuse 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

If you propose to create digital products in the course of your IMLS-funded project, you must first provide answers to the questions in **SECTION I: INTELLECTUAL PROPERTY RIGHTS AND PERMISSIONS**. Then consider which of the following types of digital products you will create in your project, and complete each section of the form that is applicable.

#### **SECTION II: DIGITAL CONTENT, RESOURCES, OR ASSETS**

Complete this section if your project will create digital content, resources, or assets. These include both digitized and born-digital products created by individuals, project teams, or through community gatherings during your project. Examples include, but are not limited to, still images, audio files, moving images, microfilm, object inventories, object catalogs, artworks, books, posters, curricula, field books, maps, notebooks, scientific labels, metadata schema, charts, tables, drawings, workflows, and teacher toolkits. Your project may involve making these materials available through public or access-controlled websites, kiosks, or live or recorded programs.

#### **SECTION III: SOFTWARE**

Complete this section if your project will create software, including any source code, algorithms, applications, and digital tools plus the accompanying documentation created by you during your project.

#### **SECTION IV: RESEARCH DATA**

Complete this section if your project will create research data, including recorded factual information and supporting documentation, commonly accepted as relevant to validating research findings and to supporting scholarly publications.



## **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.

**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.

## **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 the format(s) you will use.

**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.

**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.

### **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. 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).

## **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).

**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).

### **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).

**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.

## **SECTION III: SOFTWARE**

### **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 or similar functions, and explain how the software you intend to create is different, and justify why those differences are significant and necessary.

### **Technical Information**

**B.1** List the programming languages, platforms, frameworks, 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), URL(s), and/or code repository locations for examples of any previous software your organization has created.



## Access and Use

**C.1** Describe how you will make the software and source code available to the public and/or its intended users.

**C.2** Identify where you will deposit the source code for the software you intend to develop:

Name of publicly accessible source code repository:

URL:

## 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.

**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 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.

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

**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?

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

**A.7** Identify where you will deposit the data:

Name of repository:

URL:

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