RE-14-19-0054-19 - University of Pittsburgh

Research in Service to Practice Grants; Continuing Education, Lifelong Learning - **Built-In Belonging: Scaling and Fostering Diverse and Inclusive Intergenerational Communities of Practice**

The underrepresentation of racial and ethnic minority populations and the subsequent dearth of diversity has plagued the Library and Information Science (LIS) field for decades. Despite the prioritization, commitment, and investment of IMLS, ALA, and other leading organizations in the field, the needle has not been moved on a national scale. While there are several interventions that have proven to be successful at recruiting underrepresented scholars into the field, two key challenges emerge: 1) these initiatives are difficult to financially scale in order to recruit additional students, and 2) successfully recruiting underrepresented individuals into the profession means little if workplaces fail to retain them.

While there are a myriad of barriers to retention, two key obstacles are isolation and gaps in support. Extant literature suggests that while many underrepresented students develop a sense of community and belonging within cohort-based recruitment programs, this quickly dissipates and devolves into feelings of abandonment and isolation within their graduate programs and careers. This devolvement speaks to a larger critique of diversity and inclusion efforts across disciplines in which recruitment and retention efforts are "bolted-on" to an institution, rather than "built-in" to their primary values and processes. This approach often results in disjointed and disparate recruitment and retention efforts in which the sense of community built into recruitment initiatives may be lost when it comes to separate, unrelated retention efforts. While it is essential that LIS education and professions continue efforts to build inclusion into their culture in ways that eliminate experiences of isolation and otherness, it is also immediately imperative to create a continuous sense of community and system of support that includes the programs and mechanisms with which individuals have already established a sense of belonging.

This proposed research explores how underrepresented minority students develop and maintain a sense of community and belonging within cohort-based recruitment programs, how these experiences compare to their sense of community within their graduate programs/workplaces, and how the sense of community developed in recruitment programs can be extended and scaled to a model of lifelong learning and support. This research has three phases. In Phase 1, PIs will partner with the iSchool Inclusion Institute (i3 - a cohort-based recruitment program) to conduct pilot focus groups with i3 Scholars and Alumni surrounding their experiences within and outside of the program. In Phase 2, the PIs will leverage the focus group results to inform and conduct three qualitative case studies within a different LIS, cohort-based recruitment program geared towards underrepresented students: i3, Spectrum, and Knowledge River. In Phase 3, PIs will conduct a comparative analysis of participants' experiences across case studies to identify the mechanisms that contribute to developing and maintaining a sense of community, which will be translated into a model of recruitment and retention that specifically addresses isolation and gaps in support.

In addition to addressing barriers to retention, this model seeks to ameriorate two key challenges to addressing underrepresentation. First, it addresses financial challenges by scaling mechanisms that foster community and belonging beyond recruitment through partnerships and infrastructure, rather than increasing the number of students in each program. Second, it disrupts the dominant "bolted-on approach" to disjointed recruitment and retention initiatives with the development of an empirically-informed, intergenerational model that builds and maintains community and belonging from educational recruitment to career retention.

Research in Service to Practice Grants; Continuing Education, Lifelong Learning - **Built-In Belonging: Scaling and Fostering Diverse and Inclusive Intergenerational Communities of Practice**

Statement of Need

Background

The underrepresentation of racial and ethnic minority[1] populations and the subsequent dearth of diversity has plagued the Library and Information Science (LIS) field for decades. According to the most recent iteration of the American Library Association's (ALA) "Diversity Counts" report [1], approximately 89% of credentialed librarians identify as white. The field is particularly dominated by white women, who comprise almost 73% of these positions. These figures speak to the overrepresentation of white women compared to the United States (US) population. Cooke [2] utilizes this report to illustrate the following misalignments between US population and representation within the field of librarianship:

1. "Latinos compose 16.3% of the population, but just 3.1% of credentialed librarians;
2. African Americans compose 12.6% of the population, but just 5.1% of credentialed librarians;
3. Asian and Pacific Islanders compose 5% of the population, but just 2.7% of credentialed librarians; and,
4. Native Americans were less than 1% of the population and just 0.2% of credentialed librarians" (pg. 4).

The field of librarianship is not representative of the US's current population or that which is projected. According to Pew Research Center's predictions, the United States' 2065 population breakdown will be: 46% White, 24% Hispanic, 14% Asian, 13% Black, and 3% all other races [3]. This misalignment and underrepresentation of racially and ethnically marginalized populations within the LIS field has drastic consequences and implications. Alire [4] discusses the importance of representation within librarianship, articulating the profession's desperate need for "... more minority library professionals who can identify with people in the minority communities; who can assist in the necessary outreach efforts to serve those minority residents; and who can serve as role models for minority children using the library" (pg. 562), as quoted in [5]. Library leaders and staff need to understand the communities they serve in order to connect with community members and understand their information needs [2]. As Kim & Sin [6] point out, "the knowledge of language, cultural values and information needs of their minority communities, which librarians of color possess, is invaluable for providing reference services...and literacy services...for developing and managing collections... and for reaching out to diverse users..." (pg. 4). As the field currently stands, the norms and experiences of white, middle-class professionals are embedded within the practices and organization of the libraries they serve, which can result in excluding and alienating the community members who may otherwise actively participate in and benefit from their services [2].

[1] The debate surrounding the use of 'minority' and 'minoritized' is complex as scholars debate over which term best encapsulates the subjects' agency; it is the intent of this proposal to honor the agency of the individual, while also recognizing that racially marginalized populations face and develop coping mechanisms around systemic barriers to recruitment and retention in ways that their white counterparts do not.

While addressing underrepresentation and enhancing diversity and inclusion remains a priority for ALA, IMLS, and other leading organizations in the field, the needle has not moved despite decades of formal interventions [7][8]. Many of these interventions focus on recruitment, or successfully attracting and hiring diverse candidates into the LIS field. The IMLS' 2017 November Meeting Report [7] points out that cohort-based scholarship models such as the ALA Spectrum Scholarship Program have seen considerable success over the years. Despite the lack of resources to provide enough scholarships to move the needle on a national scale, meeting attendees point out that successful recruitment programs create networks of support and critical role models who attract People of Color to the field.

While there are numerous studies, guidelines, and programs that address recruitment, several scholars point out that successfully **recruiting** underrepresented individuals into the profession means little if workplaces fail to **retain** them [8][9]. In their survey of 182 Librarians of Color, Kim & Sin [6] found that the vast majority of their participants were dissatisfied with the the retention efforts put forth by their ALA-accredited LIS programs. The authors summarized results from the open-ended comments section, indicating that "many respondents indicated that they felt abandoned and forgotten once they had been recruited and began their studies in LIS programs," (pg. 16). These sentiments were echoed in the aforementioned 2017 IMLS report, which shares attendee's reflections on the hostility, isolation, and othering many Professionals of Color experience at work and within the field.

While some scholars argue that the literature surrounding retention is lacking compared to studies on recruitment [5], there have since been several studies and resources surrounding how to address retention. Proposed efforts are typically discussed in two narratives. The first includes long-term strategies to dismantle the inherent whiteness and exclusion within LIS spaces and culture [8][9][10]. In an education context, these strategies are often discussed in terms of redesigning curriculum, implementing social justice into student learning and experiences, and providing professional training for staff/faculty around inclusion [10][11][12]. While certainly not unrelated, the second type of strategies are typically targeted interventions aimed at immediate retention and include providing current students with financial aid, work and networking opportunities, mentorship programs, and effective academic/career advising [6][13]. These categories are intertwined in that the immediate recruitment and retention of underrepresented minority students and faculty plays an essential role in creating an inclusive culture within the field. Much of the extant retention literature offers theoretical frameworks [12], collections of suggested retention strategies [6], or evaluates interventions based on outcomes [14][15] in which they define retention as retention within a recruitment *program*, rather than retention within the *field* after a person completes said program. Fewer studies [6][13], however, **empirically** examine individuals' lived experiences and reflections surrounding the recruitment and retention efforts they actually take part in and how their experiences change throughout their careers.

In addition to an empirical focus on recruitment over retention, the failure to address underrepresentation across a myriad of fields is often attributed to the tendency of institutions and organizations to treat diversity and inclusion initiatives as "bolted-on" rather than "built-in" [16]. That is to say, diversity initiatives are often added as afterthoughts separate from an organization's main activities rather than "built-in" from the beginning as institution's core value that is deeply embedded into all business processes. Bolted-on initiatives take several shapes in practice, particularly when it comes to recruitment and retention. In a university setting, for instance, a

bolted-on initiative may look like a diversity and inclusion program used for recruiting underrepresented students, but the program exists almost completely separately from any other initiative or process surrounding admissions, curriculum design, or student affairs. It checks a "diversity box," but does little to build inclusion into the fabric of the school or department or dismantle the whiteness embedded in the field [8]. Similarly, initiatives typically operate separately between undergraduate, graduate, and professional contexts and provide little continuity. This often leads to disjointed recruitment and retention efforts that fail to align and foster real progress in addressing underrepresentation within an institution or across the field.

One issue in having disjointed recruitment and retention efforts is a lack of *continued* sense of community and belonging for underrepresented students and professionals. Gaps in support and feelings of isolation are major barriers to retention [6][7][9], and yet a potential antidote to these barriers (i.e., sense of community and belonging) is being established during *recruitment* programs. A core component of many successful recruitment programs is the cohort model in which a group of students begin and complete a program's components together, building relationships with one another throughout the experience [7][13][14][15]. Cohort models are of particular interest given that their reach and community building may expand far beyond those within a single cohort, both in the connections program participants make across cohorts and the impact of seeing other People of Color has on recruitment and retention [7][15]. While cohort models can successfully recruit underrepresented minority students into the field, the sense of belonging and community they foster must be longstanding in order to successfully retain these students and faculty and avoid the aforementioned sense of abandonment post-recruitment [6]. "Bolted-on" and disjointed models of recruitment and retention pose a challenge to this continued sense of community, exacerbating the emotional burden of finding and re-finding places where people from underrepresented populations feel like they belong in each new space. While it is essential that LIS education and professions continue efforts to build inclusion into their culture in ways that eliminate experiences of isolation and otherness, it is also immediately imperative to create a *continuous* sense of community and system of support that includes the programs and mechanisms with which individuals have already established a sense of belonging.

Although a number of programs (e.g., Spectrum, the iSchool Inclusion Institute, Knowledge River, etc.) have successfully recruit students into LIS / IS graduate programs and professions, there is a clear need for intergenerational infrastructure that supports and retains students (and faculty) throughout their graduate and professional careers. This need has also emerged directly out of some of these programs, which we describe in more detail below. Therefore, this proposed research explores: how underrepresented minority students develop a sense of community and belonging within recruitment programs, how these experiences compare to their sense of community within their graduate programs/workplaces, and how the sense of community developed in recruitment programs can be extended and scaled to a model of lifelong learning and support. This work is strengthened by the PIs' parternship with i3, which will serve both as one of three data collection sites and means of dissemination (described in more detail below).

Emergent Needs and New Perspectives from a Community of Practice

Preliminary data from one program, the iSchool Inclusion Institute (i3), suggests that students and faculty want professional development and support from the programs that they are already a part of because they feel like

they belong to that community. Initial perspectives were gathered at the BUILD Summit: Building Inclusion, Leadership, and Diversity in Information and Computing[2], which was co-hosted by i3 in July 2018. Now in its ninth year, i3 is a national undergraduate research and leadership development program that recruits and prepares students from underrepresented populations for careers and graduate study in LIS / IS professions. Each year, ~25 students from different majors and universities across the U.S. participate in a 20 month-long experience, beginning with Summer Institute 1. At the end of Summer Institute 1, students return to their home institutions to complete a yearlong, distributed team research project and return the following summer for Summer Institute 2. Following Summer Institute 2, teams collaborate on publications and attend conferences. There have been 8 cohorts (185 students) with the following demographic composition: 49% Black, 23% Hispanic/Latinx, 12% Asian, 5% Multiracial, 2% Pacific Islander, and 57% women. Noteworthy achievements include: a 90% program retention rate, 35 student publications at peer-reviewed IS/LIS academic conferences, 54% of scholars who have completed undergrad and i3 have enrolled in graduate school (2 times the national average), ~70% of scholars who have enrolled in LIS/ IS-related graduate programs were first exposed to the field during i3, and *100% of i3 scholars who have applied to graduate programs have been accepted to their programs.*

After the opening keynote, the BUILD Summit began with a panel of LIS professionals across academia and practice, all of whom are i3 Alumni. Several themes from the five Alumni panelists were echoed throughout the day in the subsequent breakout sessions by the more than 100 i3 Scholars and Alumni in attendance. Alumni repeatedly shared that once they completed the undergraduate i3 program, they experienced a lack of similar support in their graduate programs and post-graduate workplaces. These sentiments were echoed by the i3 Faculty, all of whom are underrepresented scholars within information science programs. When asked what kinds of programs or resources could support them, two consistent themes emerged:

a) i3 Alumni want continued professional development and support **specifically** from the i3 program (beyond the program's current undergraduate-facing model),
b) Because they feel a sense of **community** and **belonging** within the program

In other words, i3 Alumni want the program that originally *recruited* them into the field to play a role in facilitating *retention* based on a sense of community and belonging established and maintained over time (i3 Scholars are actively enrolled in the program as undergraduate students for 20 months). These sentiments were echoed in a follow-up Alumni survey, in which 87% of respondents indicated that they still feel connected to the i3 program (including those who were members of the inaugural 2011 Cohort), and 100% wanted i3 to expand its model to fill gaps in the support they receive in their current graduate programs and / or places of employment within the LIS field. Examples of gaps Alumni identified include mentorship, identifying jobs and internships, professional development, identifying collaborators and side projects, and advice on navigating hostile workplaces. i3 Alumni echo the sentiments of isolation and lack of support beyond their initial recruitment but explicitly want support from the community in which they already feel they belong.

[2] The Summit's theme was moving "From Bolted-On to Built-In" and brought together practitioners, researchers, students, and faculty in the information sciences to discuss the need to transition from bolted-on programs to successfully building successful diversity initiatives into organizations' core processes.

i3 is a prime example of a program that successfully *recruits* underrepresented students into LIS / IS graduate programs and professions, yet there is a clear need for intergenerational infrastructure that *supports* and *retains* i3 Alumni (and faculty) throughout their graduate and professional careers. The needs expressed by the i3 community are echoed in IMLS' 2017 November Meeting Report, which indicates that Students of Color frequently find themselves "alone" in LIS courses and Faculty of Color report similar isolation in their LIS programs. i3 Alumni and Faculty experience these feelings of isolation articulated in the extant literature, yet indicate that the source of future support matters based on an established sense of community and belonging. Spectrum Fellows in Cooke's interviews expressed similar sentiments, suggesting that program administrators expand to build more formal communication and support infrastructure with them as scholars, as well as their institutions, in order to provide continued support [13]. Rather than "starting over" with the design of new communities of support, individuals who participate in programs geared towards recruitment seek continuous support from these same programs into their graduate programs and careers.

Contributions

The abrupt shift i3 Alumni report from the support they receive within recruitment programs to a lack of support within graduate programs and the workplace is aligned with the aforementioned literature, as are the gaps of support they identified in the follow-up survey. The articulated gaps in mentorship, work and collaboration opportunities, and professional development are not new, yet the stark contrast between support in their recruitment and retention experiences speaks to the larger critique of disparate, "bolted-on" diversity and inclusion efforts. The lack of cohesion between the efforts that recruit underrepresented individuals into the field and those that retain them ultimately fail to dismantle the culturally-embedded exclusion within LIS and exacerbate their experiences of isolation and loneliness.

While several scholars have pointed out the challenge in scaling cohort-based recruitment programs in terms of the number of students supported, requests from underrepresented individuals and concerns about lack of support post-recruitment suggest there may be another way to scale to positively impact those who do not directly participate in these programs. This proposed research explores *how* three different, successful cohort-based recruitment programs create *and maintain* senses of community and belonging. The results will be used to inform an intergenerational model of recruitment *and* retention that leverages the community building strengths of recruitment programs to address significant barriers to retention. Enhancing the recruitment and retention of underrepresented minority students and professionals is a critical priority for the field; by addressing underrepresentation and enhancing the diversity of the field, LIS professionals will be far better able to understand the needs of and engage with the rapidly diversifying populations and communities they serve.

Project Design

This proposed research explores how underrepresented minority (URM) students and alumni develop and maintain a sense of community and belonging within LIS cohort-based recruitment programs, as well as how their experiences within these programs differ from their graduate programs and workplace experiences.

This research is not interested in evaluating a single program, but rather exploring the differences and commonalities across student experiences within different recruitment programs. To explore and understand students and alumni experiences, this research is comprised of three qualitative case studies, each within a different LIS, cohort-based recruitment program. Case studies allow individuals, groups, and phenomena "to be investigated in context" [13], which is essential when exploring how individuals develop relationships and the program mechanisms that foster connections. Case studies will be conducted by conducting approximately 20 semi-structured, qualitative interviews with participants from each of the following programs: the iSchool Inclusion Institute, Spectrum, and Knowledge River (60 interviews in total).

Each of these programs were chosen based on their successful record of recruiting underrepresented minority scholars into the field through their cohort-based models. While each program is cohort-based and has had at least 150 participants over the years, each is structured differently in terms of program length, cohort number and structure, curriculum, target population, and structure of in-person and distributed interactions. These differences are essential: exploring how (and to what extent) underrepresented minority students develop and maintain a sense of community within these different structures and contexts will provide rich insight into the lived experiences of participants. Comparative analysis of these experiences (detailed below) across case studies will provide meaningful insight into the mechanisms that contribute to developing and maintaining a sense of community, which will be translated into a model of recruitment and retention that specifically addresses isolation and gaps in support.

Theoretical Framing

This research explores the concept of 'sense of community' by using McMillan and Chavis' Sense of Community Theory (SCT) [17]. Often utilized in psychology literature, the theory defines a "sense of community" as a "feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together," (pg. 9). SCT is applicable across domains and flexible in its application; it can be applied to either physical communities (like neighborhoods) or relational communities (professional groups, spiritual groups, etc.). This study focuses on the exploration of relational communities, specifically academic and professional communities within LIS spaces.

SCT argues that there are four constructs that comprise sense of community: membership, influence, integration and fulfillment of needs, and shared emotional connections. Membership speaks to the feeling of belonging (or not belonging). Influence refers to the mutual ability between an individual and community to influence one another. Integration and fulfillment of needs speaks to the perception and feeling of fulfillment a person feels as part of a community. Lastly, Shared Emotional Connections is the extent and quality of interactions between members, which ultimately create a community's common and shared history.

Qualitative interviews will be employed to understand *how* participants within each case study experience these four constructs. These interviews are epistemologically interpretive, given that this research is not interested in objective truth, but rather participants' subjective realities, feelings, and lived experiences when it comes to how

they develop and maintain senses of belonging and community. These constructs will inform each of the interview questions and responses will be coded and analyzed based on their alignment with said constructs. Interviews will be semi-structured to encourage participants to provide insight into their experiences that may not be fully encapsulated by the theory.

Research Questions

RQ1: How do underrepresented minority (URM) students develop a sense of community and belonging within LIS recruitment programs?

RQ1a: How does this sense of community and belonging diminish or evolve over time (after program completion)?

RQ1b: Which formal and informal structures contribute to the development and change in URM students' sense of community within the program?

RQ2: How does the sense of community and belonging URM students develop within recruitment programs differ from the sense of community and belonging they experience within their graduate programs/workplaces?

RQ3: How can the sense of community developed in recruitment programs be extended and scaled to address isolation and provide support for URM students and employees within LIS graduate programs and workplaces?

Study Design

This proposed research is broken into three phases:

Phase 1 (Planning & Piloting):

IRB Approval: The first step of Phase 1 is securing IRB approval through the University of Pittsburgh, given that the methods of data collection (detailed below) include human subjects. The PIs are in the process of submitting all necessary materials, which allows several months for iterative changes based on IRB feedback, which should ensure approval prior to the August 1, 2019 start date. The IRB application includes details surrounding participants' informed consent and the ethical/secure storage of data.

Pilot Focus Groups: The next step of Phase 1 is conducting focus groups with i3 Scholars and Alumni.

Rationale: The pilot groups focus specifically on i3 participants because of the three programs in the subsequent case studies, i3 has students / alumni at the undergraduate, graduate, and professional levels.

Purpose: The focus groups will serve two purposes: a) pilot the interview questions to determine appropriate fit / identify additional constructs outside of the community framework and b) test and adjust interview questions for each age group.

Recruitment: Three separate focus groups will be conducted across levels of experience: current undergraduate i3 Scholars, i3 Alumni in graduate programs (both MLIS and PhD), and i3

Alumni in LIS professions. Each focus group will have between 5-8 participants, who will be recruited via emails to the i3 listservs.

Data Collection: Focus groups will take place during i3, when both current i3 Scholars and i3 Alumni are in Pittsburgh. Each focus group will last approximately an hour, will be audio-recorded (with participants' consent), and run by a PI, who will be taking observational notes. Focus group questions will be informed by the four constructs of the Sense of Community Theory (membership, influence, integration and fulfillment of needs, and shared emotional connections). Participants will be asked how they experience(d) these four constructs during their participation in i3, if / how these experiences have changed over time, and how informal and formal program structures contributed to these experiences (RQ1). Participants will also be asked how their i3 experiences with each of these constructs compare to their current institutions (their undergraduate programs / graduate programs / workplaces) (RQ2), as well as to reflect on the gaps between their experiences and how their senses of community (or lack thereof) can be expanded to fill their current gaps in support.

Data Analysis: Audio recordings will be transcribed and coded according to the constructs in the Sense of Community Theory. Interview questions will be semi-structured, which means all responses that do not align with constructs in the theory will be iteratively open-coded. PIs will identify and discuss patterns and emergent themes in order to iteratively update interview questions.

Phase 2 (Data Collection & Analysis):

Case Studies: PIs will conduct semi-structured interviews with current participants and alumni from three different programs: i3, Spectrum, and River Knowledge.

Rationale: To ensure that this research can be generalized beyond the experiences of participants from a single program, interviews will be conducted with participants across three different programs.

Purpose: To identify how URM students develop a sense of community within LIS recruitment programs, how this sense of community changes over time and which programmatic elements play a role in this evolution, how feelings of community and belonging in recruitment programs compare to those they experience in other institutions, and how feelings of community established in recruitment can scale to address isolation and gaps in support.

Recruitment: Twenty participants from each of the three programs will be recruited via: a) PIs personal outreach to contacts within each program, b) snowball sampling, and c) recruitment emails. Ten participants from each group will be current program participants and 10 will be alumni. This will ensure that we get a distribution of current students and professionals, which will provide insight into the sense of community participants develop in academic and workplace contexts.

Data Collection: The PIs will (individually) run semi-structured interviews with participants via Skype, which will be audio-recorded (with participant consent), and last approximately one hour. Each participant will be compensated $25. The PI conducting each interview will take

observational notes to capture non-verbal cues and will ask the questions developed from the Sense of Community Theory and edited from the focus groups.

Data Analysis: The PIs will transcribe the interviews and code the responses according to the RQs they answer, as well as the theoretical constructs they align with. Responses that do not align with a construct will be open-coded; PIs will identify patterns across responses and discuss emergent themes in order to come to agreement. Themes and patterns identified across case studies (both within the theoretical framework and those that emerged outside of it) will be identified and used to develop an intergenerational model of recruitment and retention.

Phase 3 (Member-Checking & Dissemination):

Member-Checking: We will present and discuss our results with members of each group to ensure that we are appropriately representing their lived experiences and not leaving out key details.

Rationale / Purpose: In order to assess the believability of this work, we will request and confirm at least five interview participants from each group (i3, Spectrum, and River Knowledge) to engage in a short, follow-up Skype session. The PIs will present the results and request feedback/input to check with members of each community that their experiences are represented. Feedback will be implemented into the results.

Dissemination: The PIs will disseminate the results throughout the research process and across each phase. In terms of academic, peer-reviewed publishing, the PIs will publish preliminary results at LIS conferences such as iConference and ASIS&T throughout the three years to gain peer feedback. Final results, including the intergenerational model of recruitment and retention, will be disseminated final via articles in core LIS journals and conference presentations during Phase 3. In addition to academic, peer-reviewed publishing, it is important to disseminate results to LIS professionals and practitioners who may wish to implement findings into their community projects, programs, and initiatives. Based on existing connections and also through this project, we will continue to build relationships with ALA (e.g., through the Committee on Diversity and the Equity, Diversity, and Inclusion Implementation Working Group, and the Diversity and Outreach Fair) to help disseminate this work to a wider audience. We will also partner directly with i3 to disseminate results to their larger network of LIS professionals through their quarterly newsletters and website. Findings can be translated into a web archive for LIS professionals, practitioners, and other programs to use, and in partnership with i3, we will develop webinars open to LIS professionals and practitioners interested in how to effectively build and maintain sense of community (which will allow others to adapt these findings to their settings). With participants' consent, these webinars will be recorded and then shared on the i3 YouTube channel.

Diversity Plan

The entirety of this proposed project is based on understanding, developing, and sustaining diverse scholars and communities in LIS within the context of recruiting and retaining racial and ethnic minority populations. This research explores the lived experiences of students and alumni who participated in recruitment programs for of racially and ethnically underrepresented students (as defined by the iSchool Inclusion Institute, Spectrum, and

Knowledge River). By engaging with participants from three different recruitment programs (with three different structures) who are in different parts of their careers (some in undergraduate programs, some in graduate programs, and some in their professions), this research is uniquely positioned to explore commonalities and differences across experiences how underrepresented minority students develop and maintain a sense of community within these programs and over time.

This approach presents a unique opportunity to identify themes of experiences and mechanisms that promote (and perhaps inhibit) a prolonged sense of community and belonging. These experiences and mechanisms will be translated into an intergenerational model of recruitment and retention that supports the development of a diverse workforce by:

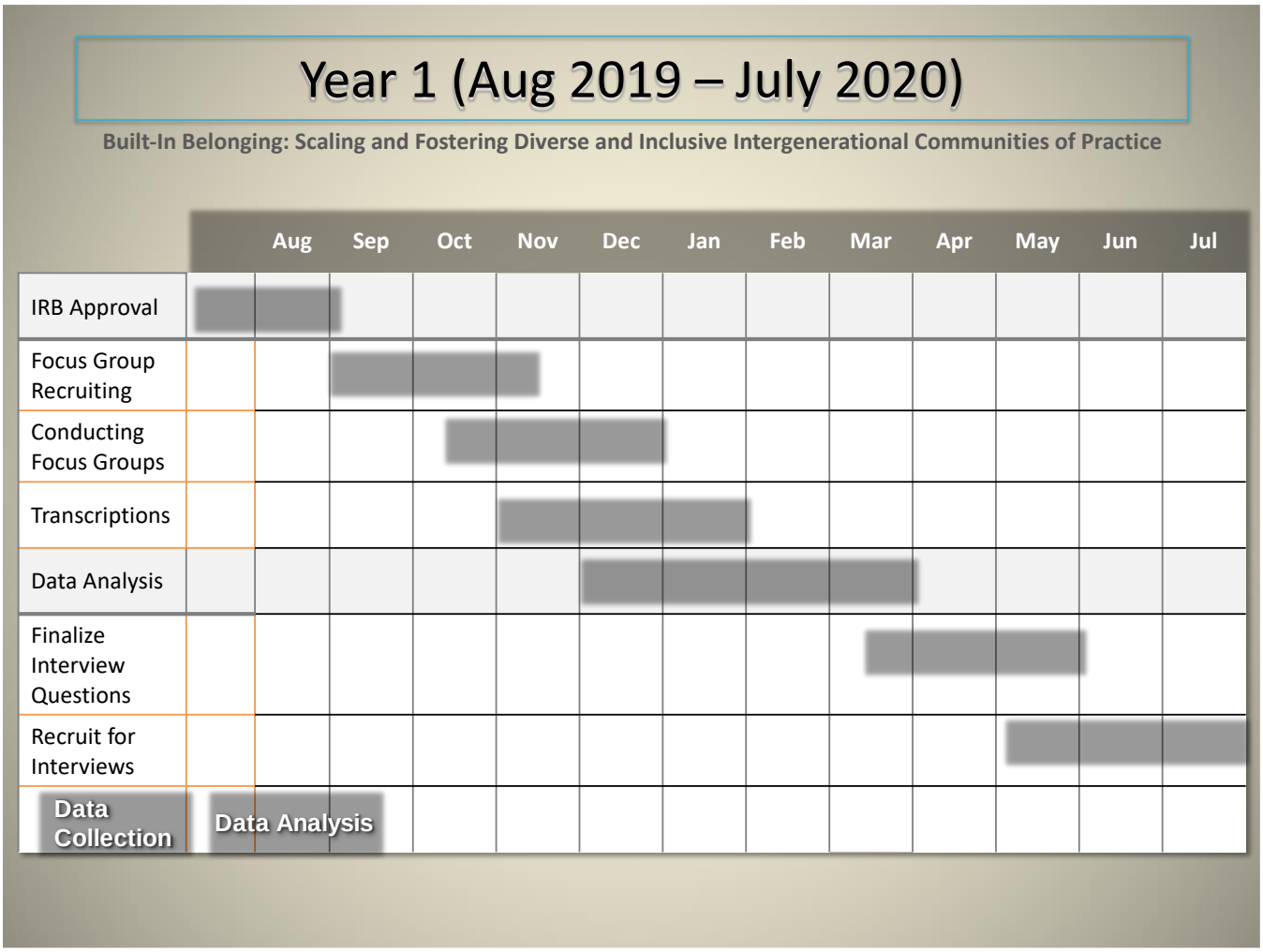
- Addressing financial challenges to scaling successful cohort-based recruitment initiatives through an alternative approach (a model of scaling mechanisms that foster community and belonging beyond recruitment through partnerships and infrastructure, rather than increasing the number of funded students each program accepts),
- Disrupting the dominant "bolted-on approach" to disjointed recruitment and retention initiatives with the development of an empirically-informed, intergenerational model that builds and maintains community and belonging from educational recruitment to career retention.

Broader Impact

The results from this will be used to inform an intergenerational model of recruitment *and* retention that leverages the community building strengths of recruitment programs to address significant barriers to retention - not only for students while they are enrolled in their programs, but also as they graduate and pursue careers. To enact systematic change, we challenge the dominant "bolted on" approach. This project will have an impact on other programs within the field, as they can use our findings to build in and maintain belonging and community even after individuals are recruited into LIS / IS programs, which is essential to both their recruitment and retention in the field. This will serve as a foundation to create more continuity between recruitment and retention programs at undergraduate, graduate, and professional levels, which will help individuals maintain a sense of belonging and community long-term (counteracting feelings of isolation they may experience at their home institutions and professional spaces). Enhancing the recruitment and retention of underrepresented minority students and professionals is a critical priority for the field; by addressing underrepresentation and enhancing the diversity of the field, LIS professionals will be far better able to understand the needs of and engage with the rapidly diversifying populations and communities they serve. Results of this project will be sustained beyond the funding period through both peer-reviewed publications as well as open access to web archived materials (as described in Dissemination). Our model of recruitment and retention will be applicable to other programs, and our webinars will allow us to explain how other institutions, programs, and communities can adapt our project deliverables.

Research in Service to Practice Grants; Continuing Education, Lifelong Learning - **Built-In Belonging: Scaling and Fostering Diverse and Inclusive Intergenerational Communities of Practice**

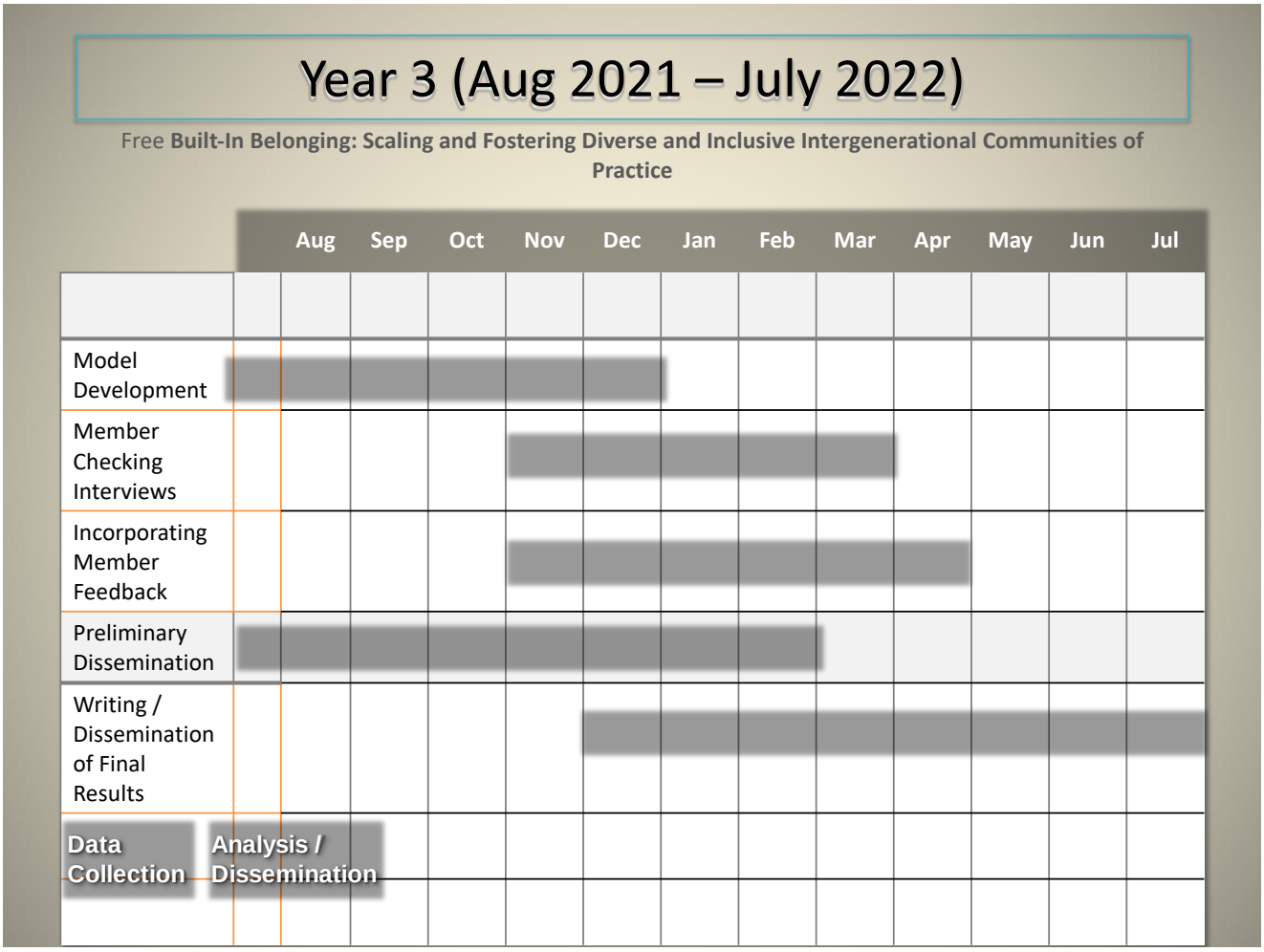
Schedule of Completion



Year 1 Phase 1 (Planning & Piloting)

Year 2 Phase 2 (Data Collection & Analysis)

-



Year 3 Phase 3 (Member-Checking & Dissemination)

DIGITAL PRODUCT FORM

Introduction

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

Instructions

All applications must include a Digital Product Form.

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

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

Part I: Intellectual Property Rights and Permissions

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

Intellectual property of digital materials will be held by the iSchool Inclusion Institute (i3). Licensing options will be considered based on the different types of digital content created so that open access is available (e.g., Creative Commons).

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.

i3 will have ownership rights over the digital products. Materials can be used for non-commercial purposes by referencing the IMLS project and i3. Potential users will be notified about terms of access and conditions via the i3 website where the content will be hosted.

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.

Participants' information will not contain identifying information in our findings. For webinars, all individuals who participate will be asked to consent to video sharing. Participant names will not be shared.

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

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

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

As part of this project, we will create digital content and resources for LIS professionals and practitioners. This includes newsletters (12) in PDF format, digital content shared on the i3 website, and webinars (number will be determined based on needs/wants of the community), which will be recorded and hosted on the i3 YouTube (with participant consent).

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

Word and Adobe will be used to create PDFs. The i3 website and YouTube will be used to host content. Video-hosting/conference software, such as BlueJeans, will be used to host webinars.

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

DOCX; PDF; WMV, MOV, MP4, AVI, MPEG, MPG; WAV, MP3, WMA

Quality standards will be used for these digital files. Minimum resolution for videos will be 720p.

B. Workflow and Asset Maintenance/Preservation

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

We have developed a timeline for both the project workflow and its digital deliverables. These will be monitored and evaluated monthly by the PIs through meetings.

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

One of the PIs owns and hosts the i3 website. Thus, any materials created will be supported after the award period ends.

C. Metadata

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

Where applicable, metadata will be standardized through the use of descriptive document, video, audio titles and information.

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

Metadata will be maintained through the PIs and i3, where applicable.

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).

We will facilitate widespread discovery and use of our digital content through the promotion of this material through our existing i3 network and connections with ALA. This information will also be shared on social media platforms, by word of mouth, and will be searchable using on i3's website.

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).

Digital content will be made openly available online (through i3 website [WordPress], YouTube).

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

i3-inclusion.org

Part III. Projects Developing Software

A. General Information

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

No applicable

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

No applicable

B. Technical Information

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

No applicable

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

No applicable

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

No applicable

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

No applicable

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

No applicable

C. Access and Use

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

No applicable

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

No applicable

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

Name of publicly accessible source code repository:

No applicable

URL:

No applicable

Part IV: Projects Creating Datasets

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

We will collect data through focus groups and interviews (intervals are dependent on IRB approval and participant availability). However, we will not share the datatset (only findings will be shared) in order to protect participant privacy and ensure they are comfortable sharing their experiences.

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 proposed research will require IRB approval given our methods involve human participants. The PIs are currently in the process of submitting all necessary materials, which allows several months of iterative changes based on IRB feedback before the August 1, 2019 start date.

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

There is the possibility that personally identifiable information (PII) will be collected during the interviews. These will be removed from the transcribed files through data anonymization and removal of specific identifiers. Findings will not contain any PII.

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

Consent documents will be stored at the University of Pittsburgh.

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

We will use focus groups and interviews, which will be audio recorded. These will then be transcribed into DOCX or PDF files.

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

A codebook will be created along with the dataset and will be stored in Google Drive (doc format). The documentation will be managed permanently through this mechanism.

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

We will archive and manage de-identified data on Google Drive. Findings will be disseminated via peer-reviewed publications as well as the i3 website after the completion of the project.

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

Name of repository:

Not applicable

URL:

Not applicable

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

This data management plan will be reviewed during IRB approval and then yearly by the PIs. The implementation plan will monitored by PI Booth.