

College Fluency Capacity Building: Empowering Librarians to Support Students Navigating College

The Borough of Manhattan Community College (BMCC), with support from Ithaka S+R, requests \$383,224.63 for an *Applied Research grant* to enhance the abilities of academic librarians and library workers to help community college students successfully access and navigate institutional resources and services for their holistic needs. This project will advance LB21 Goal 3, to enhance the training and professional development of the library workforce to meet the needs of their communities, and specifically Objective 3.2, to create and/or refine training programs that build library workforce skills and expertise in contributing to the well-being of communities.

Project Justification

Statement of Need

Academic librarians are at the forefront of interacting with students, especially within the community college sector where the library can be a welcoming environment for a wide range of students, contributing to a student's sense of community and belonging. In some cases, a librarian may be a student's most trusted or well-known staff person on campus and are the information professional they come to for help with both academic and non-academic questions. As the type of information that students are seeking has been radically impacted by social, demographic, economic, and technological changes, librarians find themselves increasingly required to master an expanded concept of information skills; alongside the role of helping students navigate more traditional academic, journal, or archival information sources, need is requiring librarians to evolve and develop new knowledge and skills to answer students' questions about navigating the university environment itself. Even with orientation programs and first year experiences or courses that introduce how to navigate college structures, students still may not know what programs and assistance are available to them nor how to access them, thus impacting numerous aspects of their well-being in addition to their academic success. These barriers to success, which existed prior to but have been exacerbated by the COVID-19 pandemic, are particularly relevant to first generation and lower socioeconomic status students, a group who are disproportionately served by community colleges.¹

Our research team has coined a novel term to describe this increasingly urgent phenomenon: College fluency—the knowledge and corresponding set of abilities that enable *students and staff* to effectively locate and use relevant college services, programs, and resources, which can help students to successfully engage with and self-advocate within the culture and bureaucracy of higher education institutions in order to achieve their goals.²

The stakes of college fluency are high for students and librarians; the culture, nomenclature, and organizing principles of U.S. higher education are often opaque to students, and even sometimes to staff ensconced in departmental silos. This opaqueness can make navigating the services a college offers a challenge, especially for non-curricular needs that are served by myriad offices with unfamiliar names (e.g., Bursar, Registrar, Provost, Dean, etc.). One student, interviewed during prior IMLS-funded research conducted by BMCC and Ithaka S+R, astutely describes the complicated landscape of college: “For me the college is just so big. Sometimes you get bounced back and forth from departments to departments... you get lost in bureaucracy... sometimes you don’t even know how to navigate the whole system.”³ In fact, first-generation students in particular indicate that *non-curricular* information needs—that is, needs related to navigating information for support outside of the classroom with issues like food security, financial aid, and technology assistance—are often a bigger concern for them than *academic* ones, such as discovering scholarly content for a research assignment.⁴

Additionally, providing support to students for non-curricular information needs is not a straightforward task for librarians, and further research is necessary to uncover what resources and practices community college libraries need to increase college fluency on their campuses. Librarians themselves recognize the pressing need for further training and support in connecting students to resources that will increase their college fluency; preliminary data gathered by Ithaka S+R from hundreds of community college library directors nationally indicates that a majority (roughly 60%) would highly value research on new models for connecting students with information from other college services or

¹ Fast Facts 2021. (n.d.). AACC. Retrieved March 14, 2021, from https://www.aacc.nche.edu/wp-content/uploads/2021/03/AACC_2021_FastFacts.pdf

² Wolff-Eisenberg, C., (2020, February 11). The case for academic libraries and “college fluency”. *Ithaka S+R*. <https://sr.ithaka.org/blog/the-case-for-academic-libraries-and-college-fluency/>

³ Wolff-Eisenberg, C. & Braddlee. (2018). *Amplifying student voices*. Ithaka S+R. <https://sr.ithaka.org/publications/amplifying-student-voices/>

⁴ Brinkman, S., Gibson, K., & Presnell, J. (2013). When the helicopters are silent: The information seeking strategies of first-generation college students. *Imagine, Innovate, Inspire: ACRL 2013 Proceedings*, 643–650.

departments.⁵ Librarians face many barriers that motivate their need. Services are offered by myriad institutional providers that may not be in close coordination with one another, posing barriers to developing a shared understanding of existing services. To name a specific example as detailed in several recent qualitative studies, librarians and student affairs staff often differ in the way that they view their contributions to institutional and student success, and infrequently have a clear understanding of what the other offers.^{6 7} Further, because the library often falls within academic affairs while most student services do not, effective communication of existing resources across these silos can be obstructed by differences in reporting structure.⁸

To further examine and develop impactful strategies for unmet needs related to college fluency, we propose a library-led research project focused on community college librarians and students. The findings of our project will then be applied to trainings to increase librarians' college fluency so that through them, students may have improved access to the resources and services that can positively impact their financial, mental, and social health

Target Group and Beneficiaries

The target group and beneficiaries of this research will be community college librarians, some of whom are already enhancing their skills and expertise toward assisting students in achieving college fluency. Additionally, beneficiaries include community college students who are often in critical need of resources and services that will benefit them both materially and academically.

This project will produce evidence-based publications, presentations, and workshops for librarians. These deliverables will include meaningful, practical solutions tailored to community college libraries' unique missions, budgets, and student bodies. This research will thus support the IMLS Objective 3.2 "to create and/or refine training programs that build library workforce skills," by strengthening community college librarians' skills and knowledge of college fluency that will directly impact the material well-being of underserved students.

Contributions to Existing Research

Our proposed research complements and builds upon ongoing IMLS-funded research identifying and assessing college literacy activities and services in public libraries,⁹ by extending this work to community colleges. Similarly, our project will be informed by IMLS-funded research examining the provision of library services for African-American college students at four-year institutions.¹⁰ Outside of the substantial research that BMCC Library and Ithaka S+R have conducted on the challenges that community college students encounter in navigating college resources and services, most research on existing and potential support services for fostering college fluency, including staff experiences and perspectives, has been conducted at four-year colleges and universities. While the Community College Research Center (CCRC) mentioned "college know-how" as one mechanism impacting student success in a 2011 report¹¹, more recent research on community colleges from CCRC and others has focused on academic programs and development and evaluation of support programs and their impact on retention and persistence, but not on college fluency and its impact. The Hope Center also researches students' holistic needs, such as housing and food insecurity, and policies to address them, but library services for holistic needs, including developing college fluency that can help address these student needs, are not included. Lastly, the library

⁵ Blankstein, M. & Wolff-Eisenberg, C. (2021). Library strategy and collaboration across the college ecosystem: Results from a national survey of community college library directors. Ithaka S+R. <https://sr.ithaka.org/publications/library-strategy-and-collaboration-across-the-college-ecosystem/>

⁶ Long, D. (2016). *Librarians and student affairs professionals as collaborators for student learning and success* [Doctoral Dissertation, Illinois State University]. ISU Institutional Repository. <https://ir.library.illinoisstate.edu/etd/519>

⁷ Hoag, B. (2016). *Opposites or perfect partners: Student affairs and libraries in collaboration to advance student learning* [Doctoral Dissertation, Bowling Green State University]. BGSU Institutional Repository. https://scholarworks.bgsu.edu/he_diss/69

⁸ Blankstein, M., & Wolff-Eisenberg, C. (2019). *Organizing support for success: Community college academic and student support ecosystems*. Ithaka S+R. Retrieved February 28, 2021, from <https://sr.ithaka.org/publications/organizing-support-for-success/>

⁹ Hands, A. (2021). *Public Library Support of College Literacy in Appalachia (IMLS Grant RE-250024-OLS-21)*. <http://www.imls.gov/grants/awarded/re-250024-ols-21>

¹⁰ Davis, R., & Saunders, L. (2021). Beyond lip service: A call for research-informed services for Black and African-American students. *The Journal of Academic Librarianship*, 102479. <https://doi.org/10.1016/j.acalib.2021.102479>

¹¹ Karp, M. M. (2011). Toward a new understanding of non-academic student support: Four mechanisms encouraging positive student outcomes in the community college. CCRC Working Paper No. 28. Assessment of Evidence Series. Community College Research Center. <https://eric.ed.gov/?id=ED516148>

and information science literature in this area most often explores library liaison roles to student affairs mirroring existing liaison relationships in academic affairs. This proposed research project targets the center of the venn diagram of students' holistic needs, library and student affairs partnerships, and college fluency.

BMCC Library and Ithaca S+R are uniquely positioned to lead this research project based on their expertise and prior experiences. Through data collected by BMCC and Ithaca S+R in a cross-institutional survey of over 10,000 students¹² and interviews with dozens more, our research team has gathered evidence about students' challenges with non-curricular challenges and how this issue impacts librarians.¹³ When presented with a series of possible interventions to address many of these needs, students—especially those who have been historically underserved and have less prior exposure to the vocabulary and norms of higher education—indicated that a priority would be greater support in navigating information related to the college experience, such as advising, financial aid, career planning, and personal counseling.¹⁴ While these challenges existed long before the COVID-19 pandemic, their significance has grown considerably over the last year. Many students have struggled to find adequate technology to participate in remote learning,¹⁵ nearly three in five experienced basic needs insecurity related to housing or food in the early months of the spread of the pandemic,¹⁶ and there continues to be a great need for more effective communication to students about existing and emerging college services that address these needs.¹⁷

Furthermore, Ithaca S+R's research demonstrates that students identify librarians as an access point to these resources, seeing library information professionals as an important source of support for navigating resources provided by other campus units, typically within student affairs. Some librarians are already adept at connecting students to non-library information and services, such as those at BMCC.¹⁸ Students speak to the urgent need of being able to identify key persons who can help them navigate college; as one student puts it: "If you don't ask the right person or you don't know that you have to do your own research and you just rely on [the college], you're going to get lost."¹⁹

This project will build on existing grassroots efforts led by librarians, including BMCC librarians. In recent years, BMCC librarians have been informally connecting students to information about admissions, cohort programs, technology services, building closures, student affairs services, and taking online classes, picking up this knowledge of the wider universe of college services as student needs emerge. Another promising example of librarian engagement with college fluency can be observed at LaGuardia Community College, where the college president tapped the library to lead the creation of a campus-wide online knowledge base. This knowledge base not only receives thousands of inquiries per month from students but has also helped staff across the college better understand services outside of their units, demonstrating how the entirety of the institution stands to benefit from partnerships with their libraries to facilitate college fluency.²⁰ Dedicated librarian roles for liaising with student affairs are also being created elsewhere, for example at

¹² Survey responses indicated that students struggle with non-curricular challenges that affect their success, such as balancing family, household, work, and school responsibilities; having enough money to pay for courses and basic needs; and finding and utilizing college resources and services. Blankstein, M., Wolff-Eisenberg, C., & Braddlee. (2019). *Student needs are academic needs*. Ithaca S+R. <https://sr.ithaka.org/publications/student-needs-are-academic-needs/>

¹³ Wolff-Eisenberg, C. & Braddlee. (2018). *Amplifying student voices*. Ithaca S+R. <https://sr.ithaka.org/publications/amplifying-student-voices/>

¹⁴ Blankstein, M., Wolff-Eisenberg, C., & Braddlee. (2019). *Student needs are academic needs: Community college libraries and academic support for student success*. Ithaca S+R. <https://sr.ithaka.org/publications/student-needs-are-academic-needs/>

¹⁵ Lumpkin, L. (2020, April 1). Community colleges get creative to survive spring, while prepping for a surge next fall. *Washington Post*. https://www.washingtonpost.com/local/education/community-college-coronavirus-technology/2020/04/01/2dc4f3f6-6e0a-11ea-a3ec-70d7479d83f0_story.html

¹⁶ Goldrick-Rab, S., Coca, V., Kienzl, G., Welton, C., Dahl, S., & Magnelia, Sarah. (2020). *#Realcollege during the pandemic: New evidence on basic needs insecurity and student well-being*. The Hope Center. <https://hope4college.com/realcollege-during-the-pandemic/>

¹⁷ Blankstein, M., & Wolff-Eisenberg, C. (2020). *Student experiences during the pandemic pivot*. Ithaca S+R. <https://sr.ithaka.org/publications/student-experiences-during-the-pandemic-pivot/>

¹⁸ Blankstein, M., Wolff-Eisenberg, C., & Braddlee. (2019). *Student needs are academic needs: Community college libraries and academic support for student success*. Ithaca S+R. <https://sr.ithaka.org/publications/student-needs-are-academic-needs/>

¹⁹ Wolff-Eisenberg, C. & Braddlee. (2018). *Amplifying student voices*. Ithaca S+R. <https://sr.ithaka.org/publications/amplifying-student-voices/>

²⁰ Jardine, E. (2018). The library leading: Knowledge management supporting community college institutional strategy. *New Review of Academic Librarianship*, 24(3–4), 392–403.

Sinclair College. We are planning to study interventions at LaGuardia and Sinclair as part of our research (see *Work Plan* for further details).

Proactively facilitating the development of college fluency, requires librarians and other campus staff to understand queries from students, know where relevant campus supports are located (physically or virtually), make effective referrals, and know when students ultimately received the help they need. When staff possess this fluency and build relevant services, either shared across units or led by a particular unit such as the library, students are more likely to become fluent themselves. With greater college fluency, community college students will be able to access services more easily, advocate for themselves, and progress more linearly toward positive postsecondary outcomes such as graduation and transfer.

Project Work Plan

Project Objectives & Research Questions

The overarching goal of this national, library-led research project is to advance the training and professional development of librarians and library staff to help develop and scale the delivery of programs and services for college fluency within community college libraries and across institutional silos, ultimately benefiting librarians and students in their navigation and use of college services. We will provide community college libraries with tangible service models, meaningful data, and actionable recommendations on how to build these skills, developed from extensive case studies and a national survey. This approach will ensure we engage with diverse perspectives across many institutions, gathering both rich in-depth data from qualitative phases of work and broadly generalizable results from the quantitative.

To achieve these objectives, our project will focus on the following high-level research questions:

1. What structures, capacities, and relationships currently exist to foster the development of college fluency within and in collaboration with community college libraries?
2. What cultural and structural challenges exist for developing college fluency among librarians and students, both for in-person and virtual support?
3. What are possible new and expanded roles for librarians and other support providers in developing college fluency?

The Project Team

Jean Amaral, Associate Professor at Borough of Manhattan Community College, will serve as principal investigator, and work closely with Melissa Blankstein, Ithaka S+R's research team leader, collaborating on all major project decisions and activities. Ithaka S+R, a not-for-profit research and strategic advising service, has demonstrated methodological expertise in survey design, project design and management, and they also are recognized as a leading research organization in the library community, making them uniquely suited to partner on this applied research project.

This project team brings extensive experience with research design and analysis in the context of academic libraries and has collaborated successfully on a recent IMLS-funded project on community college libraries and student success.²¹ Amaral has been the PI on two community college studies and collaborated on several others, including two national projects involving seven to eight participating colleges. Blankstein leads a team of researchers at Ithaka S+R in studying research, teaching, and learning support services, student and faculty needs, and organizational leadership in collaboration with educational and cultural organizations. Blankstein designs and carries out research at Ithaka S+R on library stakeholder needs, support services and structures, and alternative approaches to defining student success, including multiple IMLS-funded initiatives on community college libraries and student success. The team will also include Danielle Cooper, Associate Director, who will provide high level oversight of research methods and strategic advisement on the project on an as needed basis, and two analysts who will support the research agenda by assisting with conducting case studies, and data analysis, and programming.

Members of the core project team will be responsible for developing research methods and protocols, conducting analyses, and authoring publications. They will contribute thought leadership, iterate on research instruments, conduct interviews, contribute to ongoing blogging, and host the culminating workshops. Borough of Manhattan Community College will lead on all necessary IRB approvals. Ithaka S+R will lead on survey implementation steps and drafting of the final capstone report.

²¹ Blankstein, M., Wolff-Eisenberg, C., & Braddlee. (2019). *Student needs are academic needs: Community college libraries and academic support for student success*. Ithaka S+R. <https://sr.ithaka.org/publications/student-needs-are-academic-needs/>

Advisory Committee

We will also engage closely with an external advisory committee composed of 5-6 community college library directors, student affairs leaders, and other leading experts. This group will review all data-gathering instruments, provide input on draft reports, and advise us as we develop recommendations. The following distinguished professionals have already agreed to serve in this capacity:

- Rebecca Davis, Assistant Professor, School of Library and Information Science, Simmons University
- Laurie Fladd, Director of Holistic Student Supports, Achieving the Dream
- Africa Hands, Assistant Professor, Library Science, East Carolina University
- Dallas Long, Dean, Milner Library, Illinois State University
- Mark McBride, Library Senior Strategist, Office of Library and Information Services, SUNY System
- We are currently in the process of recruiting members in the area of student affairs.

Engagement with Target Groups

As described in further detail below, we will engage directly with a number of audiences through a combination of quantitative and qualitative methodologies (see *Methodological Approach* section). Individuals who will participate in the research will include librarians and library staff, chief academic and student affairs officers, directors of academic and student affairs departments, and on-the-ground staff in units such as academic advising, financial aid, and enrollment management. To understand the success factors and challenges that exist for developing college fluency, it is essential that we take this multi-stakeholder approach rather than solely considering the role of library employees. Understanding collaborative efforts across institutional silos, from multiple perspectives, will produce the most actionable findings for libraries and their colleges more broadly.

A broader set of audiences will also be able to use and benefit from the findings of the project. Academic libraries across the country will be able to look to our findings to spur their own college fluency development by learning about already established models and leveraging our insights on the factors that facilitate and impede success. We also expect that leaders outside of the library will gain a better understanding of the potential power behind a cross-institutional partnership with the library toward helping students navigate this non-curricular information. We will target professionals in both of these groups to receive regular updates on and insights from the project via blog posts, research reports, and a series of workshops.

Methodological Approach

In order to develop a holistic understanding of students' needs related to college fluency and how libraries can best serve them, our project will take a mixed methods approach to evidence gathering. Given that college fluency is an emerging framework for describing the library's role in community college support services, this project is designed to explore and build that framework through an iterative process grounded in the perspectives of the key stakeholders relevant to its application (students, instructors, library workers and other community college staff involved in student support services). This process, informed by grounded theory, will enable the project to develop and apply college fluency as a novel theoretical framework, which can then also be applied by those conducting research in the future to foster replicability.

First, we will explore the factors that facilitate student development of college fluency through a series of qualitative case studies. Through iterative on-the-ground, qualitative information gained within the initial stages of the project as context, we will then conduct a national survey of stakeholders across community colleges, including library and non-library staff, to assess at scale the opportunities and challenges associated with serving students' non-curricular information needs nationally. Phasing the qualitative stages of work prior to the national survey will provide the evidence base to gain a deep understanding of successful models and barriers to supporting students. Using a mixed-methods, grounded approach to assess college fluency and establish library capacity building strategies will be essential to better articulating college fluency capacity needs, as well as how librarians can best respond to those needs.

Timeline

Year 1 (August 2022 - July 2023)

- *August 2022 - September 2022.* Announce project. Finalize and convene advisory committee virtually. Identify 3-5 institutions for Phase I case studies. Identify potential venues for workshops in Phase IV and generate timeline for proposals. Hire adjunct librarian. Secure IRB approval.

- *October 2022 - January 2023.* Secure Phase I case study participation and create interview script. Conduct virtual interviews with approximately 25-30 library and non-library staff across participating institutions. Analyze interview findings and publish synopsis blog posts. Issue open call for applications to participate in Phase II case studies.
- *February 2023 - April 2023.* Secure Phase II case study participation. Develop and finalize interview scripts for Phase II case studies.
- *May 2023- July 2023.* Conduct virtual interviews with approximately 25-30 library and non-library staff across participating institutions. Begin assembling survey recipient list.

Year 2 (August 2023 - September 2024)

- *August 2023 - December 2023.* Complete Phase II case studies. Convene advisory committee virtually. Draft survey instrument, test via cognitive interviews, iterate with advisory committee, and finalize. Finish assembling survey recipient list.
- *January 2024 - February 2024.* Field survey, monitor response rates, send reminder messages to participants, and close survey.
- *March 2024 - May 2024.* Convene advisory committee virtually. Analyze survey findings. Publish capstone report of findings and disseminate widely through email, social media, listserv, and media outreach. Begin to present findings broadly. Coordinate and schedule workshops. Begin conducting workshops.
- *June 2024 - July 2024.* Continue conducting workshops. Continue to disseminate and present findings broadly at relevant conferences and media.

Year 3 (September 2024 - January 2025)

- *September 2024 - January 2025.* Continue conducting workshops. Continue to disseminate and present findings broadly at relevant conferences and media.

Work Plan

Phase I: Case studies of institutions with existing roles and models (August 2022 - February 2023): We will first explore existing formalized sources of support that librarians provide to students for their non-curricular information needs through qualitative case studies. This will help us develop an understanding of what approaches current adopters are employing and what the future of service provision for other institutions might resemble. These formalized sources of support may take the form of unique library services, programs, or classes to promote college fluency, new and/or expanded librarian roles focused on student success, and the development of digital platforms that centrally house non-curricular student information.

To explore this landscape of existing support models, we will identify 3-5 institutions with compelling library-led models that are supporting college fluency development for their students, by leveraging existing relationships, listserv outreach, and desk research, and will aim to include institutions that have newly implemented interventions as well as those that have a more mature, large-scale model. We will also convene the advisory committee virtually to orient them to the project and each other and to consult on existing support models for potential participation. To incentivize participation and acknowledge the time involved in participating in a case study, we will offer institutions the opportunity to send two representatives (one library and one student affairs representative) to our invitational workshop (see *Phase IV: Amplifying Project Impact*) with members from all case study institutions to share knowledge and bring back actionable strategies to scale their current college fluency capacity for their librarians and staff.

Institutions that are interested in participating in a case study will need to share with the project team information on the longevity of the model and success metrics employed for evaluating it to ensure that we are profiling both high-quality and diverse offerings. We have already identified several existing models that are distinct and compelling, such as LaGuardia Community College in New York provides an interactive, virtual knowledge base, AskLaGuardia, led by their Metadata Librarian, which provides students with answers to common questions in relation to navigating the college and its many departments.²² Other examples include Sinclair College in Ohio, where their Student Success Librarian liaises with other departments across academic and student affairs, as well as Amarillo College in Texas where they are dedicated to provide a culture of care and love for their students as they navigate their time at the college.

²² For more information on AskLaGuardia: <https://laguardia.intelliresponse.com/>; <https://sr.ithaka.org/blog/when-knowledge-breaks/>

Once these institutions are identified and selected, representatives from both BMCC and Ithaca S+R will interview approximately 25-30 library and non-library staff via phone or videoconference (roughly 5-7 per institution). These interviews will delve into the model in place at each library, challenges and opportunities encountered, other campus services dedicated to college fluency (e.g., TRIO programs, single stop services, first year experience programs), and measures of success or impact employed. In particular, understanding how library support can complement, while not duplicating, broader campus efforts will be key. Non-library staff interviewed will include student and academic affairs leaders, staff, and faculty. We will use the automated caption function of Zoom and NVivo to transcribe each interview. Following each set of case studies, we will publish a synopsis of the model on the Ithaca S+R website via blog post.

Phase II: Case studies of institutions without existing roles and models (March 2023 - December 2023): In this phase, we will focus on colleges where the library is interested in providing non-curricular information support to their students, but do not presently have formalized roles or models in place. We will conduct 3-5 case studies on these institutions to examine the challenges and opportunities associated with effectively directing students to the resources they need in order to be successful. While the prior phase of work will focus on existing models with clear markers of success, this phase will be key for uncovering structural and cultural challenges for institutions that have not yet formalized college fluency support via dedicated roles, technologies, or services. Data collected from these case studies will be instrumental in the development of our national study in Phase III, given the current lack of existing literature for informing such a survey.

To select colleges for these case studies, we will issue an open call for applications, employing social media, library listservs (e.g., CJCLS-L), and relationships with professional associations (e.g., AACCC, ALA, League for Innovation, NISOD, Achieving the Dream) to recruit participants. Library directors with support from their leadership (e.g., provost or president) will be able to submit an application on behalf of their institution. The core project team and project advisors will select colleges for case studies based on motivating factors for participating, ability to act on findings, and diversity of selected institutions as a whole (based on student body, geographic location, etc.). To incentivize participation and acknowledge the time involved in participating in a case study, we will also offer these institutions the opportunity to send two representatives (one library and one student affairs representative) to our invitational workshop (see *Phase IV: Amplifying Project Impact*) with members from all case study institutions to share knowledge and bring back actionable strategies to develop college fluency capacity for their librarians and staff.

Throughout these case studies, we will interview approximately 25-30 library and non-library staff via phone or videoconference (roughly 5-7 per institution) in accordance with our previous phase of work. These interviews will delve into the library's current college fluency knowledge and any collaborative partnerships across the institution. As these institutions do not have formal roles or models, these case studies will seek to understand the challenges and opportunities in building capacity for college fluency and uncover any key practices in developing capacity training programs. Similar to Phase I, we will use the automated caption function of Zoom and NVivo to transcribe each interview. After all case studies in Phase II are complete, we will publish a synopsis of these case studies on the Ithaca S+R website via blog post.

We will analyze the data from these case studies from both Phase I and Phase II to map roles in which staff regularly refer students to other offices for their holistic needs, explore the current landscape of more informal college fluency student support, and identify common barriers. Using this data, we will also be able to produce a map of how colleges are directing students and interacting with colleagues in other offices. These college mappings—which may take the form of infographics, sankey diagrams, or overlays on geographical campus maps—will take into account physical office and department locations, the relative ease or difficulty of finding them, and how students are physically navigating to answer their non-curricular challenges. The mappings will be published in an interim blog post and may also be incorporated into the final capstone report. Our identification of the challenges associated with developing and implementing relevant supports through these visualizations and associated interviews, as well as the successful strategies gleaned from the previous phase of the project, will deeply inform the development of our national survey in the next phase.

Phase III: Surveying institutional leaders and staff (January 2024 - May 2024): The qualitative data shared and gained through the first two phases of research will also culminate with a national survey of staff at community colleges centered on their practices and perspectives on developing greater college fluency for students. We will survey staff members both within and outside of the library to explore how they respond to non-curricular inquiries, how familiar they are with the services provided by other offices, and how they receive feedback and data to determine if students have received proper support. The information gathered in this phase will be used to identify relative areas of strength and opportunities for greater collaboration and coordination across an institution.

We will convene the advisory committee virtually to discuss the findings from the site visits and possible thematic areas for the upcoming survey. Once the survey has been drafted by the core project team, the draft will be reviewed by advisors and subsequently tested via cognitive interview with 8-10 individuals in the survey population. The cognitive interview process is an essential step for ensuring that questions are clearly and consistently understood by respondents in a variety of roles and institutional contexts.²³

While we have budgeted to purchase a small list of existing contacts across community college roles from a trusted third-party vendor, we will primarily gather from institutional websites (spanning approximately 100 institutions) a high-quality contact list of community college leaders and staff, including those in roles such as librarians, academic advisors, counselors, enrollment specialists, and financial aid staff. By gathering contact information in this manner, we are ensuring the collection of a robust set of individuals in relevant roles at their college. In total, we expect to invite roughly 6,000-7,000 individuals to take the survey, resulting in a sample of approximately 1,000-1,500 respondents after the survey has been in the field for 4-6 weeks.

Borough of Manhattan Community College and Ithaca S+R have had great success collaborating together on large-scale surveys, as exemplified through our survey of college students through the Community College Libraries and Academic Support for Student Success project.²⁴ Further, Ithaca S+R has extensive experience fielding national surveys through our triennial faculty and library director surveys, and our surveys of chief academic and student affairs officers.²⁵ To ensure a high response rate, we will implement a targeted and multi-faceted marketing approach. We will identify a number of compelling signatories for the survey invitation and reminder messaging, such as leaders in the community college library sector, to ensure that respondents are motivated to respond. We will also provide two incentives for participation, (1) a raffle for one of several gift cards (e.g., one of twenty \$100 gift cards) and (2) an exclusive webinar on survey findings prior to the release of the final report just for our survey participants. We will also promote the survey through additional channels outside of direct contact with invitees, including through connecting with relevant associations, publishing blog posts, and leveraging social media promotion.

Phase IV: Amplifying project impact (May 2024 - January 2025): Following the survey of key institutional stakeholders, we will draft a public capstone report of findings with actionable recommendations for community college leaders to utilize in re-envisioning their support of students' wide-ranging information needs. We will hold the final virtual convening of the advisory committee to discuss the survey, overall project findings, and plans for future workshops. Once the capstone report has been drafted, the advisory committee will review and provide feedback before finalization.

First, we will share an embargoed version of this report with media contacts at library and higher education publications (e.g., *Inside Higher Ed*, *Library Journal*). We will then publish and disseminate this report widely, through targeted email outreach, applicable listservs, and through social media. We will also encourage advisors to share the report and the project's findings widely within their networks. To encourage discussion at the local level, we will provide a slide deck with the distilled findings and conversation prompts; these materials can be used to facilitate campus conversations among stakeholders.

As one of the most important outcomes of this research will be to share strategies and best practices on building college fluency capacity for library faculty and staff, we will host a series of workshops to directly serve librarians. For institutions who participated in the case studies in Phases I and II, in recognition of their participation, we will host an in-person workshop for two representatives for each institution (one library and one student affairs representative). These full day, interactive workshops will address both qualitative findings within the earlier stages of work that they took part in,

²³ Wolff-Eisenberg, C. (2018, June 1). Employing cognitive interviews for questionnaire testing. *Ithaca S+R*. <https://sr.ithaka.org/blog/employing-cognitive-interviews-for-questionnaire-testing/>

²⁴ Blankstein, M., Wolff-Eisenberg, C., & Braddlee. (2019). Student needs are academic needs. *Ithaca S+R*. <https://sr.ithaka.org/publications/student-needs-are-academic-needs/>

²⁵ Blankstein, M., & Wolff-Eisenberg, C. (2019). *Ithaca S+R us faculty survey 2018*. *Ithaca S+R*. <https://sr.ithaka.org/publications/2018-us-faculty-survey/>; Frederick, J. K., & Wolff-Eisenberg, C. (2020). Academic library strategy and budgeting during the COVID-19 pandemic. *Ithaca S+R*. <https://sr.ithaka.org/publications/academic-library-strategy-and-budgeting-during-the-covid-19-pandemic/>; Blankstein, M., & Wolff-Eisenberg, C. (2019). Organizing support for success. *Ithaca S+R*. <https://live-ithaca-sr.pantheonsite.io/publications/organizing-support-for-success/>

and the quantitative survey findings, to discuss meaningful solutions and assess current capacity to address student success information needs and develop roadmaps for collaboration and service implementation. We intend for these workshops to provide these institutions with an opportunity to reflect on their own library's college fluency capacity, and a venue for knowledge sharing of meaningful strategies towards bolstering capacity for college fluency.

We will also host three workshops alongside relevant conferences (e.g., ALA, League for Innovation, AACC, NASPA, Achieving the Dream) to share strategies developed with the broader community. Participants in these interactive, hands-on workshops will examine the study's findings in relation to their local environments and leave with a list of potential partners and next steps identified for addressing college fluency on their campuses. The workshops will be developed iteratively, using participant feedback and facilitator self-reflections to refine materials and activities.

Indicators of Success

The project's success will be measured through timely progress towards all project activities, including the delivery of final outputs, as well as the extent to which our target audiences engage with project activities and outputs. Therefore, our key metrics of project success include a high survey response rate (20-25%), high readership of public blog posts and the capstone report (300-500 site visits for each of the former, 2,000-3,000 for the latter), the securing of 2-3 venues for project workshops, media coverage of the key issues and findings from the project (1-3 articles), and robust attendance in our pre-release webinar of survey findings for respondents (20-30% of survey respondents in attendance). We will collect data on each of these metrics throughout the course of the project, not only to share with IMLS for evaluation purposes but to iteratively make improvements in our work as it unfolds. See Performance Evaluation Plan attached.

Diversity Plan

In focusing on community colleges, we are addressing inequities within higher education, where attention and funding is directed more substantially to four-year institutions. For example, there is a \$78 billion gap in funding between community colleges and four-years nationwide, a deficit of \$8,800 per student.²⁶ Additionally, community colleges receive just 67 cents for every dollar received by baccalaureate institutions.²⁷ Community colleges are also underrepresented in higher education research, with fewer scholars, journals, and policy institutes focusing on their experiences than those examining four-year colleges.²⁸

The advisory committee brings together a range of roles and positions, ensuring diverse representation, including a range of individual identities. Several members have both library and student affairs experience and have conducted related research. The advisory committee will also provide input regarding diversity in each phase of the research. Our project aims to produce actionable outcomes that will directly benefit a diverse and underserved student population. The research we are conducting is designed to serve the needs of community college students, who, as mentioned earlier, are a diverse constituency. In 2019, students of color comprised 50% of students enrolled in community colleges, first generation students 29%, and students with disabilities 20%.²⁹ Community college students are also predominantly from lower socioeconomic status households. Our research aims to produce actionable outcomes that will directly benefit this diverse population.

We will take into account geographic representation in selecting institutions for the first and second phases of our research, including colleges from higher and lower density areas. The selection criteria will also include information about student profiles to ensure diverse representation, including minority-serving institutions. For interviews conducted in these phases, we will seek diverse participants across roles, including individuals from such offices as veterans services, accessibility services, and offices focused on first generation students, students of color, as well as LGBTQ students. During phases one through four, we will also promote the project and recruit participants from underrepresented

²⁶ Yuen, V. (2020). *The \$78 billion community college funding shortfall*. Center for American Progress.

<https://www.americanprogress.org/issues/education-postsecondary/reports/2020/10/07/491242/78-billion-community-college-funding-shortfall/>

²⁷ Ahlman, L. (2019). *Dire disparities: Patterns of racially inequitable funding and student success in public postsecondary education*. TICAS. <https://ticas.org/wp-content/uploads/2019/09/dire-disparities.pdf>

²⁸ Floyd, D. L., Felsher, R. A., & Ramdin, G. (2016). A retrospective of four decades of community college research. *Community College Journal of Research and Practice*, 40(1), 5–22.

²⁹ *Fast Facts 2021*. (n.d.). AACC. Retrieved March 14, 2021, from https://www.aacc.nche.edu/wp-content/uploads/2021/03/AACC_2021_FastFacts.pdf

communities through professional organizations, including: REFORMA, Black Caucus of ALA (BCALA), Asian/Pacific American Librarians Association (APALA), National Community College Hispanic Council (NCCHC), National Asian Pacific Islander Council (NAPIC), and National Council on Black American Affairs (NCBAA).

Project Results

Outcomes and Outputs

This research project will result in new knowledge and research-driven resources for librarians in best practices for meeting novel student needs related to college fluency and libraries' needs in order to support it. This knowledge will inform the creation of enriching programs and services for library faculty and staff designed to address non-curricular information needs and college fluency which will contribute to students' persistence and completion of degrees. Students who understand and develop skills to successfully navigate U.S. higher education culture and systems will be better positioned to identify and address bureaucratic barriers to their success and to utilize services addressing their holistic needs. Providing appropriate support to librarians so that they can serve student users of the library will ultimately help libraries stay at the cutting edge of student information needs.

Following this project, we expect the participants, including members of the advisory committee and phase one and two interviewees, to better understand and intentionally plan services addressing college fluency and non-curricular information needs of students. Staff in the library and in student affairs at participating institutions will also gain college fluency, positioning them to better serve students' holistic needs.

Beyond the study participants, we expect the academic library community to be able to turn the project's actionable findings into practice. Academic librarians will gain insight into students' non-curricular needs and the role that college fluency may play in enhancing student success and overcoming barriers to persistence. Librarians and student affairs leaders and staff will be able to build on potential models identified in the project findings to partner on college fluency initiatives and institutional efforts to address students' holistic needs.

Outputs associated with these outcomes include:

- in-depth, collaborative research with service adopters and non-adopters within and beyond the library;
- ongoing blogging (about 5-8 blog posts throughout) on regular research updates and profiles of service adopters authored by project team members, advisors, participating institutions, among others;
- a capstone report with qualitative and national survey findings, and actionable recommendations for library and non-library audiences;
- presentation materials summarizing research results that can be adapted locally for education and advocacy on college fluency; and
- in-person and virtual workshops for participant knowledge sharing and to help libraries assess readiness for greater provision of services.

We also expect that the practices and models which emerge from this research project will be the subject of further investigation and evaluation. Our results may generate future proposals to IMLS or other funders to pilot one or more college fluency models identified in the capstone report. Outputs will be maintained on Ithaka S+R's and BMCC's websites in perpetuity.

Communications

Throughout the project, the research team will communicate emerging findings and reflections through blog posts on the Ithaka S+R website; these updates will be promoted through social media and library and student affairs listservs. Publications will also be made available through the BMCC institutional repository. We will also seek to share findings at library, community college, and student affairs conferences, including ACRL Annual, ALA Annual, Achieving the Dream, American Association of Community Colleges (AACC), League for Innovation in the Community College, NASPA (student affairs professional organization), and National Institute for Staff and Organizational Development (NISOD).

To extend and sustain the impact of this project beyond the two-year grant period, we will release all reports, instruments, and other materials under an open access CC-BY license, promoting and encouraging their use and distribution. We will also create informational materials that can be adapted by local advocates for presentations to library and student affairs leaders and staff at colleges nationwide.

Borough of Manhattan Community Co							
	Year 3						
Task	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25
Announce project							
Hire adjunct librarian							
Identify potential workshop venues for Phase IV and create proposal							
Convene advisory committee virtually							
Identify 3-5 institutions for Phase I interviews							
Secure IRB approval							
Secure Phase I interview participation and create interview							
Conduct Phase I virtual interviews							
Analyze interview findings and publish synopsis blog posts							
Issue call for Phase II case study applications							
Secure Phase II participation and create Phase II interview scripts							
Conduct Phase II virtual interviews							
Analyze interview findings and publish synopsis blog posts							
Assemble survey recipient list							
Convene advisory committee virtually							
Draft, test, and finalize survey instrument							
Field survey; monitor response rates; send reminder messages; close survey							
Analyze survey findings							
Convene advisory committee virtually							
Publish capstone report and disseminate widely							
Conduct workshops							
Continue to disseminate findings widely							

Digital Products Plan

Borough of Manhattan Community College

College Fluency Capacity Building: Empowering librarians to support students navigating college

- What digital products will you create?

Content created for this research project will include: several blog posts (HTML), a capstone report (HTML and PDF), a presentation slide deck template (PPT), a survey instrument (Doc and PDF), interview scripts (Doc and PDF), interview recordings (MP4) and transcripts (Doc and PDF), a survey dataset (initially CSV but ICPSR will make available in a variety of formats), and presentation materials (Doc and PDF). These products will be created using applications such as Microsoft Office, Google Suite products, and Adobe Acrobat.

Digital file formats will include HTML, DOC, PDF, PPT, and CSV.

- How will you make your digital products openly available (as appropriate)?

Our capstone report, blog posts, and presentation slide deck and materials created for the project will be publicly available online via standard web browsers. Reports, blog posts, and powerpoint presentations will be published and maintained via the BMCC and Ithaka S+R research project website under a Creative Commons 4.0 CC-BY-NC license, and made available in the BMCC institutional repository where appropriate. The project's survey dataset will be anonymized and submitted to the Inter-university Consortium for Political and Social Research (ICPSR) repository for preservation and access at the end of the project. Other materials, such as confidential interview recordings and transcripts will not be made openly available.

BMCC Institutional Repository: https://academicworks.cuny.edu/bm_pubs/

ICPSR: <https://www.icpsr.umich.edu/web/ICPSR/series/00226>

Ithaka S+R: <https://sr.ithaka.org/publications/>

- What rights will you assert over your digital products, and what limitations, if any, will you place on their use? Will your products implicate privacy concerns or cultural sensitivities, and if so, how will you address them?

Materials created in the course of this research project, including research instruments, blog posts, reports, and presentation materials, will be released under a Creative Commons 4.0 CC-BY-NC license. The anonymized survey dataset will be deposited with ICPSR, ensuring availability and preservation.

Attribution rights per <https://creativecommons.org/licenses/by-nc/4.0>

No data that would allow participants to be individually identified will be released in any of the reports, blog posts, presentation materials, or shared dataset with ICPSR. For institutional profiles, case reports, and survey responses, we will obtain written/recorded consent from individuals where needed. Survey and interview protocols will be approved by the BMCC IRB.

- How will you address the sustainability of your digital products?

Blog posts and reports will be published and maintained on the Ithaka S+R and BMCC websites, as well as deposited in the BMCC institutional repository where appropriate. Survey data will be deposited with ICPSR. All interview recordings will be destroyed at the end of the project, and all transcripts generated from those recordings will be stored in a shared, protected drive, accessible to both BMCC and Ithaka S+R.

Data Management Plan

Borough of Manhattan Community College

College Fluency Capacity Building: Empowering librarians to support students navigating college

Explain how you will manage, share, preserve, document, and enable reuse of the data you will collect or generate during the project by addressing the following.

- **Identify the type(s) and estimated amount 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.**

Qualitative data collected from virtual interviews (phase 1, November 2022 - February 2023 and phase 2, May 2023- October 2023), including interview responses, and any thematic analysis will be presented in blogposts, a capstone report, and presentations. The quantitative survey dataset generated in phase 3 (January 2024 - February 2024) will be made publicly available via ICPSR and results will be presented in the capstone report.

- Qualitative data: throughout the entirety of the project, we will conduct 60-70 virtual interviews, as well as up to 5 college mappings (as described in Narrative).
 - Phase 1 (November 2022 - February 2023)
 - Researchers at both BMCC and Ithaca S+R will conduct 25-30 virtual interviews via Zoom. Virtual interview data will be recorded using Zoom and NVivo, stored within Zoom and NVivo, as well as within a shared, protected drive, accessible to both BMCC and Ithaca S+R.
 - College mappings of how institutions are directing students and interacting with colleagues in other offices generated from interviews may take the form of infographics, sankey diagrams or overlays of campus maps. These graphics will be created by both BMCC and Ithaca S+R, stored in a shared, protected drive, and will be accessible to both BMCC and Ithaca S+R.
 - Phase 2 (May 2023 - October 2023)
 - Researchers at both BMCC and Ithaca S+R will conduct 25-30 virtual interviews via Zoom. Virtual interview data will be recorded using Zoom and NVivo, stored within Ithaca S+R's Zoom and NVivo, as well as within a shared, protected drive, accessible to both BMCC and Ithaca S+R.
- Quantitative data: throughout the entirety of the project, we will conduct one survey.
 - Phase 3 (January 2024 - February 2024)
 - Ithaca S+R with the support of BMCC will collect survey data via Qualtrics. While the survey will be sent out to roughly 6,000 individuals,

we anticipate that not everyone invited will complete the survey. We anticipate a survey response rate of approximately 18-20% resulting in a final dataset containing about 1,000-1,500 responses. Data will be collected by and stored in Qualtrics which will only be accessible to Ithaca S+R. The data will also be stored in a shared Google drive, accessible only to both BMCC and Ithaca S+R

The proposed research requires IRB review, and BMCC will submit an IRB application for approval in September 2022.

- **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.**

Personally identifiable information may be collected by both BMCC and Ithaca S+R during virtual and in-person interviews, and participants will have an option to remain anonymous. If an individual will be named in a public output, they will be asked to provide written/recorded consent.

Individual survey responses will be kept confidential (i.e. it will not be publicly released). Email addresses will be collected for the purposes of distributing incentives for participation in research activities; these responses will remain in a separate dataset. PII may also be collected in the survey in the form of demographic questions (i.e. age, gender, title/role) to determine if disaggregation is possible between participant sub-groups.

No data that would allow participants to be individually identified will be released publicly. All results from the survey will be reported in the aggregate, and disaggregated data will only be reported if the subgroups are large enough to prevent identification and mitigate privacy concerns. All demographic questions and any other variables leading to identification will be removed when the survey dataset is deposited with ICPSR at the end of the project.

- **What technical (hardware and/or software) requirements or dependencies would be necessary for understanding retrieving, displaying, processing, or otherwise reusing the data? How can these tools be accessed (e.g., open-source and freely available, commercially available, available from your research team)?**

Data will be available in standard file formats (e.g., html, csv) requiring commonly available hardware and software.

- **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?**

While BMCC and Ithaca S+R conduct research, all survey data, the survey instrument, and the consent language will be stored within Qualtrics licensed by Ithaca S+R and on a private protected drive provided by BMCC. Survey consent agreements will be approved by IRB prior to survey fieldwork—survey participants will consent to the use in reporting upon submitting their completed survey. Interview transcripts will be stored in Zoom and NVivo and on a protected drive. On completion of the project, BMCC will deposit all survey data described above with ICPSR for preservation and access, along with the associated codebook.

- **What is your plan for managing, disseminating, and preserving data after the completion of the award-funded project? If relevant, identify the repository where you will deposit your data. When and for how long will data be made available to other users?**

Data from the survey will be submitted to the ICPSR repository for access and preservation. The capstone report and blog posts reporting qualitative results from case studies will be published and maintained on the Ithaca S+R website and BMCC institutional repository, where appropriate. In accordance with IRB approval, all interview recordings will be destroyed at the end of the project, and all transcripts generated from those recordings will be stored in a shared, protected drive, accessible to both BMCC and Ithaca S+R.

ICPSR: <https://www.icpsr.umich.edu/web/pages/>

BMCC institutional repository: <https://academicworks.cuny.edu/bm/>

- **When and how frequently will you review your Data Management Plan? How will the implementation be monitored?**

BMCC will review the data management periodically during the course of the project. If changes are needed prior to completion of the project, IMLS will be informed and consulted before implementation.

Organizational Profile

Borough of Manhattan Community College

College Fluency Capacity Building: Empowering Librarians to Support Students Navigating College

The City University of New York (CUNY) is the nation's largest urban public university, a transformative engine of social mobility that is a critical component of the lifeblood of New York City. The University's historic mission continues to this day: provide a public first-rate education to all students, regardless of means or background. (<https://www.cuny.edu/about/>) As one of seven community colleges in the CUNY system, Borough of Manhattan Community College (BMCC) is a diverse teaching and learning community committed to advancing equity and the intellectual and personal growth of students. Working to strengthen a culture of care inside and outside the classroom, we share a passion for learning with students from around the world. We strive to increase degree completion, successful transfer, career achievement and service and leadership within our community, New York City, and beyond. (Mission Statement: <https://www.bmcc.cuny.edu/about-bmcc/mission-statement-and-goals/>)

The A. Philip Randolph Library serves the BMCC community by providing high-quality services, collections, spaces, and experiences—both virtual and physical—that create an environment of transformation and growth. (Mission statement: <https://www.bmcc.cuny.edu/library/about/vision-mission-goals/>)

Established in 1964 as part of the City University of New York (CUNY), Borough of Manhattan Community College (BMCC) serves more than 20,000 students in over 50 associate degree programs and more than 9,000 students in adult and continuing education programs. BMCC is a majority minority college, with students self-identifying as Asian (16%), Black (32%), Hispanic (38%), and White (14%). As well, over 50% percent self-identify as first-generation college students; many are immigrants (from over 155 countries), and some are undocumented (BMCC Office of Institutional Effectiveness and Analytics, 2021).

The A. Philip Randolph Library is committed to student-centered, culturally sustaining, and trauma informed practices in all areas of the library. Librarians deliver a year-round instruction program, leading over 400 research sessions annually. The Library's open knowledge initiative, focusing on access to materials, has saved students over \$6 million since 2015. The initiative includes a robust faculty development program in open educational resources, open teaching, and open pedagogy, including the design of learning experiences in which students are engaged as knowledge creators rather than solely as knowledge consumers. Additionally, librarians offer programs focused on social justice, creativity, and a culture of reading, among others, which count on students' co-curricular transcripts. The library also recently hired its first Student Success Librarian to focus on holistic needs of students through partnerships with student affairs programs and departments.