



NATIONAL LEADERSHIP GRANTS FOR LIBRARIES

Sample Application LG-260102-OLS-26
Project Category: Applied Research

Northern Illinois University, University Libraries

Amount awarded by IMLS: \$232,583
Amount of cost share: \$0

The Northern Illinois University, University Libraries in partnership with Northeastern Illinois University Libraries, and the Library at Harry S Truman College, one of the City Colleges of Chicago, will perform research to adapt, deploy, and disseminate ethnographic research tools to investigate undergraduate and community college student research processes at public higher education institutions. This project is based on updating tools originally developed through the Ethnographic Research in Illinois Academic Libraries project. Over four phases—adaptation of protocols, piloting instruments, deployment across three sites, and analysis and dissemination—the team will recruit participants to support two complementary methods: Research Process/Ethnographic Interviews and Photo Journals/Mapping Diaries. Data collection will capture both observed behaviors and reflective mapping of student research activities.

Attached are the following components excerpted from the original application.

- Narrative
- Schedule of completion

When preparing an application for the next deadline, be sure to follow the instructions in the most recent Notice of Funding Opportunity for the grant program to which you are applying.

Evolving Student Research: A Comparative Ethnography and Toolkit

Introduction

Northern Illinois University (NIU) Libraries, in partnership with Northeastern Illinois University (NEIU) Libraries, and the Library at Harry S Truman College, one of the City Colleges of Chicago (CCC), seeks a two-year, \$232,583 IMLS Applied Research Grant to adapt, deploy, and disseminate ethnographic research tools to investigate undergraduate and community college student research processes at public higher education institutions. Current understanding of student research habits is complicated by recent changes in student behavior following the shift to remote learning in 2020 (Primary Research Group, 2022; Scoulas, 2022) and the rapid emergence of generative AI tools (Chan & Hu, 2023; Chen et al., 2024; Daher & Hussein, 2024; Deschenes & McMahon, 2024; McMurtie, 2025; Meakin, 2024). To address this, we will use ethnographic methods to closely examine student research experiences, updating tools originally developed through the Ethnographic Research in Illinois Academic Libraries (ERIAL) project (2008), funded by the Illinois State Library with support from IMLS in 2008 (Duke & Asher, 2012). Ethnographic methods provide detailed qualitative insights into student challenges and behaviors that cannot be captured through quantitative approaches. Ethnography in academic libraries leads to actionable findings (Allan, 2016; Foster & Gibbons, 2007; Lanclos & Asher, 2016). Therefore, a key deliverable from this project will be findings that will enable academic libraries to better support undergraduate and community college student research. The data will also provide longitudinal analysis, as NEIU was the home site for the ERIAL study and serves as one of the three research sites for this project. However, since ethnography is context-specific, a second key deliverable will be adaptable research protocols that other libraries can use to study their own student populations. The project findings, protocols, and resources will be disseminated through publications, conference workshops, webinars, and a project website to ensure broad access and national impact. This project aligns with NLG-L Objective 1.1 to “Serve the learning needs of the public through libraries and archives” by investigating student behaviors and experiences to improve services and interventions. With the continuing expansion of remote learning, increased use of online library services, and the rapid emergence of generative AI tools, research questions include:

- R1. What processes do students use when searching for information for assignments that require them to use outside resources not provided by the professor?
- R2. What factors do students consider when selecting sources for use in assignments that require them to use outside resources not provided by the professor?
- R3. How do students utilize sources that they have found for course assignments?
- R4. How have student research behaviors shifted since the ERIAL study?

Project Justification

Contemporary students have faced educational disruptions and the rapid evolution of artificial intelligence technologies. Professors can no longer assume students enter college equipped with foundational knowledge, social skills, or study habits (McMurtie, 2025). These gaps reflect the significant societal changes and technological advancements, particularly in AI, that have reshaped the educational landscape over the past decade (Crompton & Burke, 2023; Jurgen et al., 2023). For instance, a survey of undergraduate students at Harvard University revealed that 87.5% of respondents report using generative AI for tasks such as looking up information and writing (Hirabayashi et al., 2024). Academic libraries, as centers of learning on college campuses, play a critical role in addressing these shifts in student learning experiences. Previous research has examined student research processes and experiences (Dervin, 1998; Droog et al., 2024; Duke & Asher, 2012; Foster, 2007; Kuhlthau, 1988) as well as library spaces (Allan, 2016; Priestner & Borg, 2016; Tewell et al., 2017), but this research took place before the emergency move to remote learning in 2020 and recent advances in AI; much of the existing research misses or calls for further research on key populations like remote learners and community college students (Asher & Duke, 2011).

Libraries made drastic shifts to maintain services and access to resources for students and faculty in 2020 as campuses shifted to remote learning. The median gate count for academic libraries declined by 29% from 2019 to 2023, and the average circulation of physical items decreased by 51% from 2019 to 2023 (ACRL, 2025). These declines, as well as increased usage of virtual services (Osorio & Droog, 2021) and investment in digital resources and access to electronic resources (Blummer & Kenton, 2020), reflect lasting changes in student behavior. Research has shown an immediate impact on students' use of the library from these changes in 2020, such as increased student use of digital resources and services (Scoulas, 2022), but the underlying factors influencing students' library and research habits are unknown. Considering these changes, it is critical for academic libraries to understand how students conduct research, including how they access and engage with library resources, generative AI systems, and the open web. By better understanding student experiences, this research will benefit students by allowing libraries to implement strategies and tools to better support them. The value of this research reaches beyond academic libraries, supporting faculty and staff in higher education who aim prepare students for advanced study, informed citizenship, and the shifting demands of the U.S. workforce.

Understanding how students engage with research, interact with library systems, and select resources for assignments presents challenges but allows libraries to tailor services and resources to changing student needs. Many libraries lack the financial resources needed to conduct robust and meaningful assessments (Lanclos, 2016), making it difficult to adapt their services to meet the evolving needs of students. With limited financial resources and assessment training, libraries often turn to student success data for assessment to demonstrate their value to campus stakeholders and engage in continuous improvement. However, quantitative studies that utilize

student data fail to present the cause-and-effect relationship necessary to understand the relationship between student experiences and success metrics (Sterner, 2020). Ethnographic methods enable a deeper understanding of the “how” and “why” of students’ experiences with research and libraries (Lanclos & Asher, 2016), and provide libraries with deep insights into student research behaviors, uncovering patterns that are essential for guiding the continuous evolution of library operations.

In 2008-2010, the ERIAL study, which was so impactful that its findings were shared in publications such as *Chicago Magazine* (Moser, 2011), *Inside Higher Ed* (Missing from the Stacks, 2011) and *College & Research Libraries News* (Kline, 2013), investigated these questions by developing and using ethnographic research methods to gather valuable data that led to significant findings about students’ experiences (Duke & Asher, 2012). The project had many actionable results for libraries, such as the development of a series of research skill videos with over 100,000 views (NEIU Libraries, 2020), a heavily attended pre-conference workshop on their creation (Rozensweig et al., 2015), and a 50% increase in library instruction for an institution based on findings related to student research (Kline, 2025). Nancy Murillo, Instruction Librarian at SUNY Orange and a member of the research team on the ERIAL study at NEIU affirmed “ERIAL was one of the highlights of my career...I’m so glad to hear that similar research methods can be applied to our present day situations, considering the seismic changes we went through during the emergency move to remote learning in 2020 and what we are currently confronting with generative AI” (personal communication, February 17, 2025). In the conclusion of the book that resulted from the ERIAL project, anthropologists Andrew Asher and Linda Duke (2011) identify areas for future research: community college students and online students. This project will address these by including community college students, and both in person and online distance education students as research subjects.

Since the educational landscape has changed dramatically since the ERIAL project in 2008-2010, this project will build upon that project by updating four of ERIAL’s most effective instruments, combining them into two robust protocols suited for contemporary students: Research Process/Ethnographic Interviews, and Photo Journals/Mapping Diaries. These protocols will combine observation with interviews and analysis of student generated maps and photographs reflecting their research processes. Using modified grounded theory, the team will analyze the interviews, observations, and visual data to identify themes and enable longitudinal comparison with ERIAL findings to better understand shifts in students’ research starting points (e.g. Google, generative AI, library website), search formulations (e.g. natural language, keyword searching), source evaluation (e.g. lateral reading), help-seeking (e.g. asking a librarian, friend, or professor), and affective responses (e.g. frustration, confidence, uncertainty). By conducting updated versions of these research protocols and instruments, this study will allow for comparative longitudinal analysis of how patterns in student research behaviors have changed since the 2008-2010 ERIAL study. To achieve national impact, findings and updated instruments and protocols will be shared openly via a project website and through publication and workshops

at national conferences so that other institutions can adapt the tools to study their own unique student populations.

This proposal addresses the challenges of knowing the experiences, habits, and expectations of students conducting library research as well as the lack of easy-to-use, free tools for institutions to better understand their own student populations. This project builds upon research from the ERIAL grant as well as the IMLS funded research project “Developing and testing assessment tools for measuring library impact on student academic success” (Scoulas et al., 2022) which sought to better understand the library use and definitions of success of undergraduate students. However, the previous ERIAL study and tools were created for a different environment and the assessment tools developed via the 2022 IMLS grant do not investigate the details of what student research experiences look like. More information is needed to adjust services to meet the needs of students. Additionally, ethnology, the way in which cultural practices are compared across locations as well as time, helps us triangulate data from various methods and study sites to gain clearer insights into overall student research practices (Lanclos & Asher, 2016).

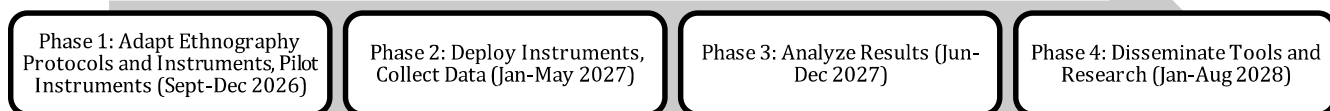
This project aims to gain a deeper understanding of a variety of undergraduate and community college student research experiences. By deeply studying the research experiences of 40 students at three varied higher education institutions (see study sites) and will benefit academic libraries of all types across the United States and beyond.

Project Work Plan

This project will take place over two years involving five key researchers who will redesign the ethnography tools and deploy them at three study sites, two project anthropologists who will provide support during the entirety of the project, and a national advisory board who will ensure the tools will have a national impact. The project will recruit ~40 undergraduate and community college student participants across the three study sites (21 for Research Process/Ethnographic Interviews, and 18 for the Photo Journals/Mapping Diaries study).

Qualitative research typically involves smaller sample sizes as it prioritizes depth over breadth and requires intensive data collection and analysis. Unlike quantitative approaches, qualitative studies reach data saturation faster (Maxwell, 2013), and in applied research projects, it is essential to implement beneficial changes for participants as soon as meaningful data emerges. Given this, a sample size of 40 participants sufficiently meets the research objectives. The study will be conducted in four phases: Adapt Ethnography Protocols and Instruments, Pilot Instruments; Deploy Instruments, Collect Data; Analyze Results; and Disseminate Tools and Research.

Figure 1: Phases 1-4 of the project



Study Sites

By examining student research behaviors across a variety of higher education institutions, this study will have broad applicability across the United States and beyond. NIU, NEIU, and CCC represent a range of institutions. The unique characteristics of each study site enhance data triangulation, a qualitative research method that integrates information from multiple sources and methods. By drawing from different study sites, this approach strengthens the validity of findings and ensures that the results are not limited to a single institution. Instead, they offer broader insights that are more widely applicable to institutions across the United States, aligning with national trends rather than localized contexts.

Table 1: Study Sites

Institution	Student Population	Campus Setting	Carnegie Classification
Northern Illinois University (NIU)	15,414 (11,348 undergraduate)	Suburb: Small	Doctoral Universities: High Research Activity (R2)
Northeastern Illinois University (NEIU)*	5,734 (4,226 undergraduate)	City: Large	Master's Colleges & Universities: Larger Programs
City Colleges of Chicago-Harry S Truman College (CCC)	6,839 (all undergraduate)	City: Large	Associate's Colleges: High Transfer-High Nontraditional

*Original site for the 2008 ERIAL study

Project Team

Kimberly Shotick, Student Success Librarian (NIU) will lead the team. Shotick has extensive experience conducting qualitative research, including as a co-PI of the IMLS-funded research project “Developing and testing assessment tools for measuring library impact on student academic success” (Scoulas et al., 2022). Additional team members include Alissa Droog, Education and Social Sciences Librarian (NIU), who has conducted qualitative research into graduate student experiences of research; Katie Ediger, Chair of Truman City College Library (CCC) with expertise in community college students; Mary Thill, Reference Coordinator and Humanities Libraries (NEIU), who specializes in information literacy and library assessment and worked on the original ERIAL study team; Lisa Wallis, eResources and Systems Librarian

(NEIU), who was the NEIU PI in the original ERIAL study and specializes in assessing the information needs of subpopulations.

Project Anthropologists

The team will be supported by consultant project anthropologists Dr. Andrew Asher and Dr. Donna Lanclos, who are well-known and frequently cited anthropologists who have studied student experiences in libraries for over 15 years. Asher and Lanclos have provided methodological training and support for librarians on ethnographic methods and are considered experts in the field. Asher was also the lead anthropologist on the original ERIAL grant and will provide continuity and assistance with longitudinal analysis for the project. Shotick, Droog, and Ediger participated in ethnographic research training conducted by project anthropologists Andrew Asher and Donna Lanclos in 2023 while Thill and Wallis worked directly on the previous ERIAL project with Asher.

National Impact

The project team will achieve national impact with the support of a national advisory board. The board will play a pivotal role in shaping the project's deliverables, helping to extend the impact of the project beyond Illinois higher education institutions. The board will provide valuable insights into the design process, while gaining early access to the research instruments, protocols, findings, and actionable results.

Table 2: National Advisory Board

Name	Title	Affiliation	State
Dr. Sabine Jean Dantus	Outreach & Reference Librarian	Florida International University	FL
Ladislava Khailova	Director of the School of Continuing Studies Library	Georgetown University	DC
Alex Mitchell	Learning and Curricular Services Coordinator	Texas A&M University	TX
Nancy Murillo*	Instruction Librarian	SUNY Orange	NY
Beth Pickard*	Science & Social Sciences Librarian	Portland State University	OR
Stan Trembach	Assistant Professor of Library and Information Management	Emporia State University	KS

***Researchers from the original 2008 ERIAL study**

Project Phases

Phase 1: Adapt Ethnography Protocols and Instruments, Pilot Instruments (Sept.-Dec. 2026)

- Refine instruments: Shotick and Droog, with support from Ediger, Thill, and Wallis will review instruments and protocols for Photo Journals, Mapping Diaries, and Ethnographic Interviews, adapting protocols at the advice of project anthropologists to reflect changing technologies and observed changes in student library use.
- Consult with project anthropologists: Shotick and Droog, with support from Ediger, Thill, and Wallis will meet with project anthropologists for feedback on proposed updates to research instruments and protocols and proposed data analysis methods for each instrument.
- Meet with the advisory board: Shotick and Droog will share refined instruments and protocols with the advisory board, collecting feedback on how they could be used at other institutions, ensuring utility of the protocols and findings nationally.
- IRB applications: Droog and Shotick will prepare initial IRB applications including instruments, protocols, recruitment materials, informed consent, data analysis and data management plans for review and adaptation by Ediger, Thill and Wallis for their institutions and IRBs. Shotick and Droog will submit an IRB application at NIU, Ediger at CCC, and Thill and Wallis at NEIU. Student research subjects will receive a \$25 gift card for participation in Ethnographic/Research Process Interviews (~21 participants) and a \$50 gift card for participation in Photo Journals/Mapping Diaries (~18 individuals) x \$50= \$900.
- Recruit student participants: Recruitment will take place via presentations about the project using a short script read or posted in classes with research projects, as determined via existing curriculum maps and review of course descriptions, at each of the three study sites (Droog, Ediger, Shotick, Thill, Wallis for their own institutions). Participants will express interest via a Qualtrics form. Selection of participants (Shotick and Droog) will reflect eligibility, and aim to include participants from varied disciplines, degree types, and personal backgrounds. Specifically, undergraduate and community college students who are engaged with a research project that requires them to find information using resources such as library databases and/or the open web will be eligible to participate. International students and students under the age of 18 will be excluded from eligibility.
- Pilot each research instrument and revise: Shotick and Droog will pilot each instrument with one student participant, then review changes to the instruments with remainder of project team (Ediger, Thill and Wallis) and project anthropologists.

Phase 2: Deploy Instruments, Collect Data (Jan.-May 2027)

- Conduct Research Process/Ethnographic Interviews at each institution: Each institution will conduct Research Process/Ethnographic Interviews with a goal of 21 student participants (seven per institution). One member of the project team will facilitate each interview, and another will take notes. Research Process/Ethnographic Data Interviews will involve asking

student participants about their experiences with course assignments and observing them work on course assignments.

- Consult project anthropologists: The project team will work with project anthropologists via meetings and email to check-in on conducting the Research Process/Ethnographic Interviews and to plan for Photo Journals/Mapping Diaries.
- Conduct Photo Journals/Mapping Diaries: Each institution will conduct Photo Journals/Mapping Diaries near the end of the semester, when students are most likely to be working on research projects, with a goal of 18 student participants (six per institution) that did not participate in the Research Process/Ethnography Interviews. Shotick will send out weekly reminder emails to student participants for two months as they take a minimum of 10 pictures representing their experience working on research assignments and draw a map of their movement throughout their day. Participants describe the photos maps during a structured interview. One member of the project team will facilitate each interview, and another will take notes.
- Interview transcription via GMR Transcription Service: Shotick will send interview recordings to GMR Transcription Service for transcription (see budget justification).

Phase 3: Analyze Results (Jun-Dec. 2027)

- Consult with project anthropologists: The project team will consult with project anthropologists on coding methods for the Photo Journals/Mapping Diaries and Research Process/Ethnographic Interviews and how to revise and update the codebooks from the ERIAL study, maintaining regular correspondence with project anthropologists throughout coding.
- Data coding: Informed by the ERIAL codebook and using grounded theory, the project team will code at least two transcripts as a team using NVivo software for qualitative data analysis. Droog and Shotick will code each journal and interview together, saving questions for regularly scheduled project team meetings. With support from project anthropologists, the team will also analyze the photos in the photo journals.

Phase 4: Disseminate Tools and Research (Jan.-Aug. 2028)

- Consult with project anthropologists: The project team will meet with project anthropologists to plan theme development/thematic analysis, maintaining regular contact throughout theme development and review early themes and actionable findings.
- Theme development/thematic analysis: The project team will meet to review codes and group them into themes. The project team will review themes from the ERIAL study and compare findings for longitudinal analysis. The project team will also begin compiling a list of actionable findings that can be applied at their own institutions and beyond based on the findings.

- Refine research instruments: Shotick and Droog will prepare research instruments and protocols to be used by other institutions and deposit them to Huskie Commons, NIU's Institutional Repository, making them freely available electronically.
- Meet with advisory board: Shotick and Droog will meet with the advisory board to share early themes and actionable findings, presenting these to the group get feedback via email and in the meeting, helping to ensure that the findings have national relevance and impact.
- Create project website with refined research instruments: Shotick and Droog will create a project website using SpringShare's LibGuides platform and deposit research instruments into NIU's institutional repository for long-term storage and access.
- Draft article for submission to an open access journal: Shotick and Droog, with support from Ediger, Thill, and Wallis will draft articles for submission to journals such as *College & Research Libraries* and *Weave: Journal of Library User Experience*. These open access journals are freely available to access, increasing the impact of the research.
- Present webinar on project findings: The project team will present a free webinar for a national audience on project themes, actionable findings, and availability of research instruments and protocols for re-use. The webinar information will be promoted on academic library listservs.
- Present at national conferences: Shotick and Droog will apply on behalf of the team to present at national library conferences to share the project themes, actionable findings, and availability of the research instruments and protocols for re-use. Key conferences may include the American Library Association (ALA) annual conference, Association of College and Research Libraries (ACRL) conference, and the Library Assessment Conference (LAC).

Project Evaluation

We will evaluate the project through strategic opportunities for feedback and usage data. To ensure timely completion of the project, the team will have twice-monthly meetings to monitor progress on the project. To ensure that research best practices are followed, the project team will maintain regular communication with the project anthropologists and meet with them at least once per phase of the project to gain expertise and feedback.

The national advisory board will play a key role in evaluating the practicality, utility, and adaptability of this project for academic libraries across the United States (the target audience). Feedback from the national advisory board in phases one and four of the project will ensure the utility and adaptability of the research instruments and protocols, the practicality and relevance of actionable findings and themes to the variety academic library types represented by the national advisory board, and the usability and discovery of the research protocols and instruments on our website.

The project team will also apply to present workshops at three key national library conferences throughout the project to share the actionable findings and themes for other libraries to adapt and apply to their own institutions, and the adaptable research instruments and protocols for other

institutions to use. For libraries unable to participate in workshops or conduct their own studies, a concise list of findings will be distributed via the project website. Attendance and a survey after each workshop will be used to gather assess the utility of the actionable findings, research instruments, and protocols. The project team will monitor downloads and web page views for the project website to understand interest in and impact of the work.

Project Results

The results of this study will include both actionable findings for academic libraries nationwide based on case studies at the three study sites, and tested research protocols and instruments available to institutions to continue research at their institutions. The results will provide an updated understanding of student research behavior since the ERIAL project and in light of changes to education from an increase in remote learning and advances in AI. To measure these changes, we will compare student behaviors from ERIAL to these findings. Comparable behaviors may include: starting point, search formulation, source evaluation, help-seeking, and affective response. Gathering data from a variety of educational institutions can lead to interventions that improve student outcomes at those institutions, in the state of Illinois, and nationally, as it did in the previous ERIAL study. The influence of the ERIAL study is evident in the ways that participating institutions changed and grew their library instruction programs, and the 177 citations that the project's book has in Google Scholar, which is in addition to the many citations of scholarship by participating institutions. The national advisory board will aid the project team in creating resources that are nationally applicable and will further assist in the dissemination of the findings and tools and through their networks.

The benefits of this project will extend beyond its completion through knowledge sharing, networking, and dissemination efforts led by the national advisory board. By actively training librarians through workshops and presentations at national conferences such as the LAC, ALA Annual, and the ACRL Conference, this project will equip institutions with actionable findings they can take home to their institutions, as well as research tools to better understand their local populations. Additionally, open access publications in venues such as *College & Research Libraries* and *Weave: Journal of Library User Experience* will further broaden its reach. The project's impact will also continue passively through the project website, allowing libraries to study their populations and contribute to the growing body of literature on student research behaviors. By examining how undergraduate and community college students across different institutions conduct academic research in an increasingly online and AI-influenced environment, this project contributes nationally relevant insights into how libraries can better prepare students for advanced study, informed citizenship, and the evolving demands of the American workforce.

Schedule of Completion

Year one

Activity	S e p - 2 6	O c t - 2 6	N o v - 2 6	D e c - 2 6	J a n - 7 7	F e b - 7 7	M a r - 7 7	A p r - 7 7	M a y - 7 7	J u n - 7 7	J u l - 7 7	A u g - 7 7
Phase 1: Adapt Ethnography Protocols and Instruments, Pilot Instruments (Sept.-Dec. 2026)												
Refine instruments												
Consult project anthropologists: instruments and data analysis												
Meet with Advisory board: review instruments												
IRB applications												
Recruit student participants												
Pilot each research instrument and revise												
Consult project anthropologists: pilot instruments												
Phase 2: Deploy instruments, collect data (Jan.-May 2027)												
Conduct Research Process/Ethnographic Interviews at 3 study sites												
Consult project anthropologists: data collection												
Conduct Photo Journals at 3 study sites												
Interview transcription via GMR Transcription Service												
Phase 3: Analyze Results (Jun.-Dec. 2027)												
Consult with project anthropologists: coding method												
Data coding for Research Process/Ethnographic Interviews (NVivo)												

Year two

	S	O	N	D	J	F	M	A	M	J	J	A
	e	c	o	e	a	e	a	p	a	u	u	u
	-	-	-	-	-	-	-	-	-	-	-	-
	2	2	2	2	2	2	2	2	2	2	2	2
Activity	7	7	7	7	8	8	8	8	8	8	8	8
Phase 3: Analyze Results (Jun.-Dec. 2027)												
Consult with project anthropologists: coding method												
Data coding for Research Process/Ethnographic Interviews (NVivo)												
Data coding for Photo Journals (NVivo)												
Phase 4: Disseminate Tools and Research (Jan.-Aug. 2028)												
Theme development/thematic analysis												
Consult with project anthropologists: findings												
Refine research instruments												
Meet with Advisory Board: findings												
Create project website												
Draft article for submission to an open access journal												
Present webinar on project findings												
Present at national conferences	Apply ACRL (Jun)	Apply ALA						Apply LAC	Present ACRL	Present ALA		