College Libraries
and Student Culture
What We Now Know
Edited by Lynda M. Duke and Andrew D. Asher
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What We Now Know

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Lynda M. Duke
and Andrew D. Asher

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Ethnographic Research in Illinois Academic Libraries: The ERIAL Project

ANDREW D. ASHER, SUSAN MILLER, AND DAVID GREEN

Research assignments might seem to be one of the most routine and commonplace activities of university life. However, as students work within an information environment that is increasingly open and dynamically changing, research assignments also represent a complex and potentially daunting task. In order to examine this complexity, this book not only asks, “What are the practices and habits students employ to complete their academic research?” but also, “What are the expectations of teaching faculty and librarians for this research?” “What are the spaces in which students work and the tools they use?” and, centrally, “How can we understand the intricate web of interpersonal processes, transactions, and relationships that define the social landscape within which research is completed?”

These questions formed the impetus for the Ethnographic Research in Illinois Academic Libraries (ERIAL) Project, a 21-month research study
conducted in 2008–2010 and funded by a Library Services and Technology Act grant through the Illinois State Library. The ERIAL Project investigated how university students conduct academic research and utilize library resources and services, and was organized around four core goals: to gain a better understanding of undergraduates’ research processes based on firsthand accounts of how they obtained, evaluated, and managed information for their assignments; to explore how relationships between teaching faculty, librarians, and students shaped these processes; to assess the roles of academic libraries and librarians within students’ research practices; and finally, to adjust library services to address students’ needs more effectively. The ERIAL Project was a collaborative effort of the libraries at five Illinois universities: Northeastern Illinois University (NEIU), DePaul University, Illinois Wesleyan University (IWU), the University of Illinois at Chicago (UIC), and the University of Illinois at Springfield (UIS). As described in table 1.1, these universities ranged in size from just under 2,100 to over 26,000 students, and included campuses that were urban and suburban, residential and commuter, and public and private. As a

### TABLE 1.1 Characteristics of ERIAL Participant Universities.


<table>
<thead>
<tr>
<th>Location</th>
<th>IWU</th>
<th>UIS</th>
<th>DePaul</th>
<th>UIC</th>
<th>NEIU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>Residential</td>
<td>Residential</td>
<td>Urban</td>
<td>Urban</td>
<td>Commuter/U Urban</td>
</tr>
<tr>
<td>Public/Private</td>
<td>Private</td>
<td>Public</td>
<td>Private</td>
<td>Public</td>
<td>Public</td>
</tr>
<tr>
<td>Type</td>
<td>Liberal Arts</td>
<td>Liberal Arts/Professional</td>
<td>Research/Catholic-Affiliated</td>
<td>Research</td>
<td>Hispanic-Serving</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>2,066</td>
<td>4,977</td>
<td>25,072</td>
<td>26,840</td>
<td>11,631</td>
</tr>
<tr>
<td>Undergraduate Enrollment</td>
<td>2,066</td>
<td>3,027</td>
<td>16,199</td>
<td>16,044</td>
<td>9,191</td>
</tr>
<tr>
<td>Graduate Enrollment</td>
<td>0</td>
<td>1,950</td>
<td>8,873</td>
<td>10,796</td>
<td>2,440</td>
</tr>
</tbody>
</table>
result of this diverse partnership, the ERIAL Project was able to query the similarities and differences of an array of library cultures.

The ERIAL Project was built on an ethnographic methodology that employed a variety of anthropological data collection techniques to build a holistic, nuanced, and user-centered portrait of student needs through the observation of what students actually did while completing their research assignments. This approach yielded rich descriptions of students’ experiences, including how they searched for information, the obstacles they encountered, the ways they sought help, their interactions with library spaces, and the effects of library instruction. In total, the ERIAL Project included more than 650 students, librarians, and faculty members participating in over 700 research activities, making it one of the largest and most comprehensive ethnographic investigations of library use to date, and providing detailed information about what research means to university students.

THE ETHNOGRAPHIC APPROACH

Ethnography is a collection of qualitative methods that focus on the close observation of social practices and interactions. Ethnography’s unique contribution to qualitative research is that it deeply examines the context in which activities occur, usually involving a researcher working with participants as they go about their daily lives. Ethnographers typically describe a particular situation or process by asking multiple people about it, and by analyzing multiple types of data, such as interviews, direct observation, photographs, journals, or cultural artifacts. In this way, ethnography allows the researcher to see multiple interpretations of a situation. The ERIAL Project’s ethnographic methods included semi-structured interviews, photo elicitation, participant observation in libraries, and mapping exercises, as well as other approaches. These methods are described in more detail below.

The ERIAL Project chose this type of qualitative research because it is especially well suited for elucidating complex processes—like research projects—that involve many steps and relationships, and for creating rich descriptions of individuals’ experiences. Ethnographic research therefore tends to be inductive and theory-generating, that is, building an argument
about how and why a particular process, practice, or event occurs based on empirical evidence. In this way, ethnography draws conclusions by examining individual observations to gradually construct a holistic picture of phenomena. This approach can have great explanatory power because it directly demonstrates what research subjects actually do, think, and feel in the midst of real-world situations.

Ethnographic methods facilitate in-depth and open-ended investigation into observed phenomena, allowing researchers a great deal of flexibility in pursuing research questions and enabling them to make fine distinctions between categories of experience. Ethnography also allows researchers to synthesize the social meaning of events and processes by triangulating from multiple viewpoints. This interpretive analysis yields rich descriptions of the ERIAL participants’ research processes and needs in a way we hope will draw the reader into the user experience.


<table>
<thead>
<tr>
<th>Enrollment</th>
<th>IWU</th>
<th>UIS</th>
<th>DePaul</th>
<th>UIC</th>
<th>NEIU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time</td>
<td>100%</td>
<td>65%</td>
<td>82%</td>
<td>93%</td>
<td>58%</td>
</tr>
<tr>
<td>Part-Time</td>
<td>0%</td>
<td>35%</td>
<td>18%</td>
<td>7%</td>
<td>42%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 and Under</td>
<td>100%</td>
<td>58%</td>
<td>63%</td>
<td>89%</td>
<td>56%</td>
</tr>
<tr>
<td>Age 25 and Over</td>
<td>0%</td>
<td>42%</td>
<td>37%</td>
<td>11%</td>
<td>44%</td>
</tr>
<tr>
<td>Gender Ratio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>41%</td>
<td>45%</td>
<td>45%</td>
<td>48%</td>
<td>42%</td>
</tr>
<tr>
<td>Female</td>
<td>59%</td>
<td>55%</td>
<td>55%</td>
<td>52%</td>
<td>58%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black/African American</td>
<td>5%</td>
<td>13%</td>
<td>9%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Hispanic/Latino(a)</td>
<td>3%</td>
<td>3%</td>
<td>13%</td>
<td>18%</td>
<td>30%</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>76%</td>
<td>72%</td>
<td>56%</td>
<td>44%</td>
<td>39%</td>
</tr>
<tr>
<td>Asian</td>
<td>5%</td>
<td>3%</td>
<td>8%</td>
<td>22%</td>
<td>10%</td>
</tr>
<tr>
<td>Unknown</td>
<td>7%</td>
<td>7%</td>
<td>11%</td>
<td>5%</td>
<td>7%</td>
</tr>
</tbody>
</table>
One potential drawback to the ethnographic approach is that it can sometimes be difficult to generalize qualitative data to a broader population, given its techniques for choosing participants and its open-ended methodological approach. For these reasons, when selecting participants for the ERIAL Project, we endeavored to choose individuals who reflected the diversity of the participating universities’ student and faculty populations and range of research experiences (table 1.2). However, it remains prudent to use caution when interpreting ethnographic data to avoid overgeneralization. For this reason, we refrain from making universal claims about the groups we studied (students, faculty, and librarians). Instead we seek to explain and interpret the patterns we observed in our data, and, whenever possible, to allow our respondents to speak in their own words.

ERIAL STUDY BACKGROUND

The ethnographic study of libraries is a relatively new and developing field of applied anthropology. Despite a call for increased use of ethnography in library and information science research by Sandstrom and Sandstrom (1995), prior to 2000 few studies had applied ethnographic approaches to either libraries or student research practices (a few exceptions include Crabtree et al. [1997, 1998, 2000], Forsyth [1998], Nahl [1998], and Seadle [2000]). Ethnographic studies of university students in general are similarly limited (see Shumar 2004), and while this work has produced several now-classic monographs, including Michael Moffatt’s study (1989) of students at Rutgers University, *Coming of Age in New Jersey*, and Dorothy Holland and Margaret Eisenhart’s study (1990) of undergraduate women, *Educated in Romance*, it is now showing its pre-Internet age. More recently, Susan Blum’s (2009) *My Word!* makes an ethnographic examination of plagiarism in student assignments, while Cathy Small’s (writing as Rebekah Nathan) *My Freshman Year* gives an account of student life at Northern Arizona University based on her own experience enrolling as a “returning” student (Nathan 2005), a study which is unfortunately plagued by methodological and ethical issues stemming from Small’s decision to conceal her identity from the students she investigated.

Interest in using ethnography to understand library users’ needs and behaviors continued to increase in the mid-2000s (see Bryant 2007, 2009; Foster and Gibbons 2005; Jahn 2008; Ostrander 2008; Othman 2004; and
Suarez 2007), and the first large-scale ethnographic study of how students utilize the library was conducted in 2004–2006 by Nancy Fried Foster and Susan Gibbons at the University of Rochester (Foster and Gibbons 2007). The success of this study in uncovering the details of student life encouraged many librarians to apply similar methods to their own libraries, and inspired a number of studies of student research processes and library use, including projects at the Massachusetts Institute of Technology (Gabridge, Gaskell, and Stout 2008) and Wesleyan University (Hobbs and Klare 2010), as well as a major study at Fresno State University (Delcore, Mullooly, and Scroggins 2009) and the ERIAL Project itself.

The initial idea for the ERIAL Project was formed in 2007 when David Green, associate university librarian for collections and information services at the Ronald Williams Library of Northeastern Illinois University, heard Nancy Fried Foster and Dave Lindahl speak at the Library and Information Technology Association’s National Forum about the University of Rochester study. Impressed with their work, Green collaborated with colleagues from the University of Illinois at Chicago and DePaul University to pursue a diverse, multisite study design. In order to diversify and enrich the study even more, two additional universities located in central Illinois were invited to join: Illinois Wesleyan University and the University of Illinois at Springfield. Funding was secured through the Illinois State Library, a department of the Office of the Secretary of State, via a Library Services and Technology Act grant. After a series of discussions, Foster agreed to participate as a consultant in the design and development of the proposal and project.

Each of the five libraries in the ERIAL Project was charged with forming its own library research team, which consisted of a designated lead research librarian and several other library faculty or staff members. The project required two full-time anthropologists: one to serve the three Chicago-area libraries and another to work with the two central Illinois libraries. Green acted as the grant coordinator and project manager. Defining roles and expectations was critical in a project that was conducted across five institutions and half the state of Illinois. Figure 1.1 presents a representation of the organizational structure used by the project.

The ERIAL Project was designed with a modular structure so that the five participating libraries could work independently. Each library’s research team consisted of three to six members. The lead research librarian served as the point person for the team and reported to the coordinating
team, which consisted of the project manager and the two anthropologists, with Andrew Asher assuming primary responsibility for ensuring the overall integrity of the project’s research methods as the lead research anthropologist.

The research was structured so that no one institution was dependent on another institution. If an institution found that during the course of the project it was no longer able to participate for any reason, it would not threaten the completion of the entire project. In a sense, ERIAL consisted of five simultaneous projects sharing a common core of research questions and methods. This structure is illustrated by figure 1.2.
While the ERIAL Project was initially funded for nine months, it became clear that trying to achieve all the teams’ research goals, without sacrificing quality, would be difficult in the short time allotted. The project therefore sought, and was awarded, a second year of funding from the State Library of Illinois, giving ERIAL a 21-month project period.

ERIAL PROJECT METHODS

In order to obtain a holistic portrait of students’ research practices and academic assignments, the ERIAL Project used a mixed-methods approach that integrated nine qualitative research techniques and was designed to generate verbal, textual, and visual data. While all five participating institutions committed to a core set of research questions and shared research protocols, the research teams at each university chose which methods would be best suited for their local needs. Institutional participation in the nine ERIAL research activities is summarized in table 1.3 and discussed below. All research activities were reviewed by each of the participating universities’ local institutional review board.

Ethnographic interviews were conducted with 156 students, 75 teaching faculty, and 49 librarians to elicit each group’s understanding of their role in the student research process and their expectations for the other groups during student research. The interviews were conducted by a project anthropologist (or, in the case of some student interviews, a librarian) and lasted approximately 45 to 60 minutes. The interviews followed a common structure and utilized open-ended questions intended to elicit specific examples describing students’ experiences undertaking research assignments, as well as how librarians and faculty members interacted with students during the research process (see appendix A). Questions focused on each group’s understanding of students’ previous preparation for research, elements of good research projects, major themes of the research process, how students sought help, obstacles that students faced, librarians’ and students’ experiences of working together, and librarians’
and faculty members’ experiences of, and hopes for, working together. Faculty and students were also asked to recall in detail a recent research assignment and to describe their roles in it.

*Photo journals* were completed with 56 students and 21 librarians. Each respondent was loaned a digital camera and asked to take a set of 25 photos over the course of several days. These photos included views of work spaces, communication and computing devices, books, and favorite work/study locations. After participants took the photos, follow-up interviews were conducted by a project anthropologist (with librarians and some of the student participants) or a project librarian (with some of the

<table>
<thead>
<tr>
<th>TABLE 1.3 Participation in ERIAL Project Research Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DePaul</strong></td>
</tr>
<tr>
<td>Librarian Interviews</td>
</tr>
<tr>
<td>Librarian Photo Journals</td>
</tr>
<tr>
<td>Faculty Interviews</td>
</tr>
<tr>
<td>Student Interviews</td>
</tr>
<tr>
<td>Student Photo Journals</td>
</tr>
<tr>
<td>Student Mapping Diaries</td>
</tr>
<tr>
<td>Students in Web Design Workshops</td>
</tr>
<tr>
<td>Faculty in Web Design Workshops</td>
</tr>
<tr>
<td>Librarians/Staff in Web Design Workshops</td>
</tr>
<tr>
<td>Research Process</td>
</tr>
<tr>
<td>Student Cognitive Maps</td>
</tr>
<tr>
<td>Student Research Journals</td>
</tr>
<tr>
<td>Retrospective Research Paper Interview</td>
</tr>
<tr>
<td>Student Space Design Workshops</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>
student participants). Interviews elicited responses to the contents of the photos to learn about the processes and tools students used to complete their research assignments and to learn about the context in which their research happened. *Mapping diaries* were completed with 34 students. Each respondent was given a set of maps of her campus and was asked to mark her movements over the course of one academic day, noting the times and places she visited and the purpose for going there. Afterward, the project anthropologist conducted a brief interview with the student to debrief the day’s events. The maps elicited more information about the spaces in which students conducted their research and day-to-day schoolwork.

*Research journals* were completed with 17 students. In the research journals activity, each participant was given a notebook at the beginning of a semester and asked to make an entry every time he worked on a research assignment. These entries were to include the date, time, place of work, and brief description of the type of activity the student was doing. The researchers then collected the completed journals at the end of the semester.

*Web design workshops* were conducted with students, faculty, and librarians. Five student design workshops (50 students combined), two faculty workshops (12 faculty combined), and three librarian/staff workshops (24 librarians/staff combined) elicited participants’ opinions on the design and content of the library home page. Participants were asked a series of brainstorming questions to generate the features that would be included on a “perfect” library website, and were asked to mark up a printed screenshot of the library’s home page with what they liked and disliked, and what they might like to see changed. Participants were then grouped into teams and asked to design from scratch their ideal home pages using large tablets of paper. Finally, respondents presented their ideal designs to each other and discussed the web page as a large group.

*Space design workshops* were conducted with 19 students. Similar to the web design workshops, this activity elicited participants’ opinions on the design of the library’s physical space. Participants were asked a series of brainstorming questions about the tasks and activities they completed in the library, which characteristics of the library they liked and disliked, and what they might like to see changed. Participants were then asked to design a perfect library space from scratch on a large piece of paper and to present their ideal designs to the group.
Cognitive maps were completed with 137 students. Over a series of several days, the project anthropologists solicited students’ participation in cognitive mapping at several locations across the ERIAL campuses. Participants completed this activity away from the library itself, so that their results would not be affected by immediate visual cues. To complete the cognitive mapping exercise, the respondent was given a blank piece of paper with short directions at the top, along with blue, green, and red pens. Students were then given six minutes to draw a map of the library from memory, and asked to change the color of their marker every two minutes, an approach that allowed the researchers to learn which elements of the map students drew first, second, and third, and provided both spatial and temporal data about how students conceptualized library spaces.

Research process interviews were conducted with 60 students. Participants were asked to allow a project anthropologist to accompany them while they conducted research for an assignment. The anthropologist videotaped the student as she worked and asked clarifying questions about her research processes and approaches. Interviews averaged approximately 15 to 30 minutes. This firsthand observation facilitated a rich understanding of how exactly students conducted their search for information.

Retrospective research paper interviews were conducted with 9 students. In the retrospective research paper interview, participants were asked to give a step-by-step account of how they completed a previous research assignment while drawing each step on a large sheet of paper, producing both a narrative and a visual account of the assignment from beginning to end.

Student participants in the ERIAL study were recruited via e-mails, outreach at campus activity fairs, by approaching students in student unions, through online surveys and presentations in classes, and referrals through friends. Faculty members were recruited via general e-mails, as well as targeted telephone calls and e-mails to those who were identified as assigning research projects in their classes, including specific individuals who had requested library instruction in the previous year and those who had not. All librarians providing reference and instruction at each of the participating libraries were also contacted via e-mail and telephone. In most cases, students were given a gift certificate (typically a $10 value) as an incentive for participation, although for some activities (such as the
design workshops and cognitive maps) students were provided with lunch or snacks as a thank-you for participating. Faculty members and librarians were not given incentives for participation.

**ERIAL ANALYSIS STRATEGIES**

After transcribing the research activities, the library research teams coded the transcripts using a modified version of grounded theory, an approach that allows interpretive themes and research conclusions to arise directly from the data (see Glaser and Strauss 1967; Bryant and Charmaz 2010). Via a structured, team-based method, each research team brainstormed what students, teaching faculty, and librarians were doing during various parts of the student research process (e.g., getting help, facing obstacles, searching for information) and what expectations each group had of the others, with the goal of elucidating patterns within the research data. Team members and the anthropologists also wrote memos about what they were learning, and an analysis document was created at the end of each brainstorming session to capture the discussion. Qualitative analysis software assisted in this process as anthropologists applied codes generated in team discussion to the data and created additional codes. This process proceeded iteratively as teams analyzed sections of data and compared findings from one population to another. Site reports summarizing findings preserved analyses long-term and facilitated cross-site comparisons of data.

The research teams also spent a great deal of time, as a group, watching the video recordings of the research interviews, in order to assist with analyses. This “co-viewing” process helped determine what additional questions the research team would like to ask during the ethnographic interviews, and also allowed the teams to link the data from students’ interviews to photographs and maps created during photo journal and mapping diary exercises (for a model of the co-viewing process, see Foster and Gibbons 2007, 55–58). Co-viewings with other members of library staff brought additional insights to the analysis, as well as providing a useful vehicle for explaining the research team’s work to nonparticipating library faculty and staff and inviting investment in the project from the library at large.

The research teams used a number of processes to generate actionable service changes. At each brainstorming meeting, the research teams
generated service ideas based on needs that appeared in the data. At the end of analysis, some teams created master lists of potential service changes, ranking them based on their importance and feasibility, to begin to think about which service changes to implement.

In order to respond to the user needs identified during the analysis process, research teams also brainstormed possible solutions, working with their colleagues in the library and beyond to determine which of these solutions were important and feasible to implement. To date, teams’ analysis processes are driving service changes in a number of areas. For example, since faculty often act as gatekeepers to students’ relationships with the library and librarians, a number of ERIAL libraries hosted colloquia with their faculty to review project findings together and begin to address how they might improve their collaboration as they assist students during research.

Finally, site reports were presented to libraries’ administrations to facilitate discussion of service changes, and most of the institutions also presented their findings to other members of library staff.

**ORGANIZATION OF THIS STUDY**

This book presents a selection of the most salient findings about teaching faculty, librarians, and students from the five ERIAL universities. In chapter 2, Mary Thill examines how differences in faculty and librarian values and attitudes toward higher education at UIC and DePaul affect their expectations for students’ research. Chapter 3 focuses on faculty-librarian relationships, with Annie Armstrong using data from ERIAL faculty interviews to evaluate how librarians can better address teaching faculty’s needs for research instruction. Chapter 4 shifts our analytical focus to students, as Susan Miller and Nancy Murillo ask how students seek help with academic assignments and why so few utilize librarians. In chapter 5, Andrew Asher and Lynda Duke make a detailed exploration of how IWU students search for information and the myriad problems and difficulties they encounter as they locate academic resources. In chapter 6, David Green examines the needs of Latino and Latina students at NEIU and evaluates how the library can best support this student group. Similarly, Firouzeh Logan and Elizabeth Pickard focus on the particular needs and research practices of first-generation college students at UIC in chapter 7. In chapter 8, Jane
Treadwell, Amanda Binder, and Natalie Tagge relate UIS’s experience in using ethnographic methods to inform a master plan for a redesign and renovation of their library. Finally in chapter 9, Lynda Duke demonstrates how ethnographic data can be used to generate library service changes and policy recommendations.

Together, these chapters represent a cross section of the depth and breadth of the ERIAL Project, as well as the complexity of relationships, processes, and practices that shape the meanings, experiences, and outcomes of students’ academic research. While no study is exhaustive, it is our hope that these chapters will help to illuminate what it means to be a university student, faculty member, or librarian, as well as inspire additional ethnographies that continue to explore the diversity of university life.

NOTES

1. Sandstrom and Sandstrom’s article sparked a five-year debate in The Library Quarterly on the epistemological and methodological underpinnings of ethnographic research (see Epperson 2006, 5–6; Nyce and Thomas 1999; Sandstrom and Sandstrom 1998, 1999; Thomas and Nyce 1998). Given that the arguments framing this debate relied on theoretical positions that were unlikely to be readily accessible to a nonanthropologist, this debate probably did little to encourage the use of ethnography in library research.

2. The photo journals, mapping diaries, web design workshops, space design workshops, and retrospective research paper interviews were adapted from protocols developed by Nancy Foster and the “Studying Students” research team at the River Campus Libraries of the University of Rochester. The ERIAL Project would like to express its appreciation to Nancy Fried Foster, Susan Gibbons, and the members of the University of Rochester research team for sharing these protocols with our project. For more information on the University of Rochester study, see Foster and Gibbons (2007).

3. For a more extensive discussion of ERIAL’s ethnographic analysis process, see Asher and Miller (2010).
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