their. Reviewing sociological and psychological research on librarian-faculty relations, I reflect on institutional structures and conditions that often support or prevent the development of partnerships. I also consider how this scholarship might help inform our shared efforts to advocate for writing and information literacy education as the shared responsibility of all educators.

In the final chapter, “Looking Back, Looking Forward,” I reflect on the themes and issues explored throughout the text and suggest considerations for, and general approaches to, strengthening the connections between writing and information literacy education, including through continued support and development of compositionist-librarian collaborations. Expanding and deepening these relationships is a long-term project that we might approach with the same openness, curiosity, and persistence that we hope students will bring to their development as writers, researchers, and critical thinkers.

Chapter 2

Students as Writers and Researchers: Empirical Studies and Pedagogical Implications

Writing is alive when it is being written, read, remembered, contemplated, followed—when it is part of human activity. Otherwise it is dead on the page, devoid of meaning, devoid of influence, worthless. The signs on the page serve to mediate between people, activate their thoughts, direct their attention, coordinate their actions, provide the means of relationship. It is in the context of their activities that people consider texts and give meaning to texts. And it is in the organization of activities that people find the needs, stances, interactions, tasks that orient their attention toward texts they write and read.1

- Charles Bazerman and David Russell, Writing Selvex/Writing Societies: Research from Activity Perspectives

[The conceiving of information as a thing—the “reification” of information—has permitted us to treat it as a commodity [...] Yet this apparent decontextualization is illusory. Information never stands alone—it is always produced and used in ways that represent social relationships. And these representations and relationships are not merely a matter of chance or individual choice but reflect the underlying patterns that structure society. All information use involves—in Michael Apple’s term—“recontextualization,” a process by which users make active sense out of the information packets that they encounter.3

- Christine Pawley, “Information Literacy: A Contradictory Coupling”


3. Ibid., 433; Michael W. Apple, Official Knowledge: Democratic Education in a Conservative Age (New York: Routledge, 1993), 68.
In 2003, the same year in which the first of Rolf Norgaard’s two-part editorial “Writing Information Literacy” appeared, the two texts quoted above were also published. In Writing Studies/Writing Societies compositionists Charles Bazerman and David Russell proposed a pedagogy that foregrounds how the social nature of composing gives it meaning and purpose, while library science professor Christine Pawley recommended a similar approach to information literacy instruction, a pedagogy that underscores the social and structural contexts that shape information creation, distribution, and reuse. In emphasizing texts and information as situated within specific communities, conversations, and environments, these scholars articulated social constructivist approaches that had become highly influential in the 1980s and 1990s in composition studies and that were gaining increased attention in librarianship.

Though Bazerman and Russell do not directly refer to information literacy, and Pawley similarly does not call explicit attention to composition studies, the connections between these fields are evident throughout the authors’ writings, as are the interrelated pedagogical implications of each text. Just as Bazerman and Russell were questioning teaching that removes the act of writing from social interactions, Pawley was challenging the tendency in libraries and in society more generally to view information and information systems as separate from the larger social relations and conditions that shape them. In other words, Bazerman, Russell, and Pawley all called attention to the inclination (within and beyond the classroom) to overlook the social contexts in which knowledge is created, circumstances that actually give meaning to the learning its greatest meaning. The social constructivist approaches that their work mirrors have been vital to much of writing pedagogy since the 1960s, when college writing programs began to expand considerably and when composition and rhetoric began to take hold as an academic field. Though the library profession has generally been slower to adopt such pedagogies, most academic librarians today would probably argue that a more rhetorically situated pedagogy that emphasizes the social and communicative functions of information seeking and use is ideal.

While the theses of Bazerma and Russell’s and Pawley’s above-quoted texts are in many respects remarkably similar, the conversations in which these scholars were engaged appear to have taken place in separate circles. Their work is a reminder of the silos that have existed between the work of compositionists and library professionals. (Reasons for the separation between our professional discourses were touched on in Chapter 1 and are explored more fully in Chapters 4 and 5.) Fortunately that tendency is changing, as is evident in recent conversations about the intersections between the ACRL Framework for Information Literacy for Higher Education and the WPA Framework for Success in Postsecondary Writing, which are the focal points of Chapter 3.

Bazerman and Russell’s argument that the social and communicative functions of writing make it “alive” is likely to be familiar to compositionists and to many librarians. Pawley’s argument about the reification of information, however, may be less familiar, perhaps in part because constructivist approaches to library instruction and discussions about the biases of information systems have been slower to develop. As Pawley implies, the term “information” often connotes a sense of objectivity, despite the fact that biased or inaccurate information is still “information,” and despite the not uncommon postmodern argument that all knowledge is constructed in some fashion.

Relatedly, the work of librarians and of information literacy instruction has often been perceived, much like library databases and other information retrieval tools, as unbiased and as relatively unaffected by social, cultural, and political contexts. This notion of library neutrality exists in tension with the impossibility of creating library resources and services that are extracted from the social, political, and structural contexts in which they have come to exist. As Pawley argues, library instruction has in many ways constructed and reinforced the perception that libraries and librarians represent a kind of objectivity, and that library resources reflect a purely objective approach to collecting, organizing, and making accessible vast amounts of information. The idea of library
neutrality has likely contributed to a lack of dialogue among librarians and compositionists, as it can reinforce the view that library instruction is primarily about mechanical procedures, as well as the perception that librarians engage mainly in perfunctory functions and have little to say about what effective pedagogy and education might look like. Such a perception of library neutrality has increasingly been a point of critique within librarianship, but it continues to play a considerable role in how libraries and library work are perceived in and outside of the profession.\(^5\)

Given the common perception of library work and of library tools as free of any bias, it is perhaps unsurprising that for most college course instructors the phrase “library instruction” calls to mind generic database demonstrations that remain disconnected from the larger context of a course. What is perhaps more surprising is that despite composition studies’ emphasis on language and discourse as socially situated, many college writing courses still teach the research process in a fairly linear and mechanical way that may reinforce a decontextualized approach to information seeking and use.\(^6\)

The perception of library resources and services—including library instruction—as existing in a gray space in which information is abstracted from its human context presents an ongoing challenge for instruction librarians who resist a tools-based approach to teaching. While most librarians value instruction that centers on critical thinking, many also understandably struggle with how to implement such a pedagogy given the context in which library instruction most often occurs (that is, a single class session for a course taught by another instructor).\(^7\) As noted in Chapter 1, this “one-shot” format, from which many librarians strive to break away, has tended to reinforce the perception of information literacy as an “add-on” that is separate from the writing process and from other instructional goals.

The view of information literacy instruction as an “add-on” may remind many compositionists of a similar struggle for writing instructors. Arno F. Knapper expressed frustration with similar perceptions of writing in his 1978 essay “Good Writing: A Shared Responsibility.” “Writing is not a one-shot subject that can be handled in the confines of a single course,” he asserted, “but must be stressed over and over again in a student’s college career.”\(^8\) And yet, Knapper continued,

> Historically, the teachers of writing have borne the burden, responsibility, and blame for teaching or not teaching good writing skills. . . . alone, the teachers of writing are bound to be less than wholly successful since no one person can possibly possess all the skills and fill all the conditions necessary to achieve a high rate of success in training good writers.\(^9\)

As this reflects, misunderstandings of both writing and information literacy as remedial skills have contributed greatly to the ease with which many educators and administrators over the decades have complained that students can no longer write or think critically. The enduring nature

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5. For an extensive discussion of the problematic concept of library neutrality see: Questioning Library Neutrality: Essays from Progressive Librarian, ed. Alison Lewis (Duluth, MN: Library Juice Press, 2008).


7. Part of this challenge comes not only from a limited amount of time, but also from a desire—and often a sense of obligation among many librarians—to teach all of the content that a course instructor has requested for a class session. In short, there is often a tension between what a librarian would ideally teach and what seems feasible for a given session. Such difficulties are further complicated by the often hierarchical dynamics between librarians and teaching faculty and the structural conditions that influence everyday work in higher education (issues which I explore more fully in Chapter 5).


9. Ibid., 23–24.
of that worry suggests it to be more myth than reality, as Harvey J. Graff has convincingly argued.10

The separate efforts of librarians and compositionists to challenge views of writing and information literacy as isolated skills have perhaps detracted our attention from how we might jointly challenge misconceptions of literacy education. That said, there are also rich library-writing partnerships that successfully do this. (Chapter 4 will explore several such examples.) The value of such collaborative work is evident from a sizeable number of empirical studies that demonstrate the benefits of teaching writing and information seeking and use as integrated activities. In this chapter I consider a number of such studies and their pedagogical implications. This research illustrates significant challenges that students face in developing as writers and as researchers. But perhaps more importantly, these studies can inform the development of pedagogies that better support students in engaging in writing and source use as meaningful acts of inquiry and social exchange.

It is worth noting here that when I describe students as researchers in this chapter, I am concentrating on their experiences with source-based research, or in other words, their processes of seeking, selecting, evaluating, and using information. While the act of researching can take many forms that extend beyond this narrow use of the term, this is the kind of research students most often engage in during their undergraduate careers and in writing courses. Such source-based research is often a starting point for students before they engage in other kinds of discipline-specific research.

This chapter's discussion of students' writing, research, and information practices provides a fuller context for considering the growing conversations among compositionists and librarians about pedagogy. It thus serves as a foundation for subsequent chapters, including Chapter 3, which focuses on the WPA Framework for Success in Postsecondary Writing and the ACRL Framework for Information Literacy for Higher Education, and their implications for both our individual and shared teaching. As is considered in Chapter 3, the pedagogical implications of the research studies discussed in this chapter frequently align with the teaching approaches implied in the two frameworks.

The studies explored in this chapter illustrate two major commonalities between writing and information literacy development: 1) the rhetorical and social contexts of writing and information literacy that give them their greatest meaning and 2) the long-term and gradual nature of writing and information literacy development. Taken together, these two themes convey the importance of underscoring the contextual and rhetorical nature of writing and information literacy through long-term and scaffolded instruction. These studies also make evident the important connections between the cognitive and affective domains of learning, which necessarily intersect with students' development as writers, researchers, and participants in various discourse communities. The intersections between the cognitive and affective learning domains that are evident in much of the research described in this chapter are reminders that it is not simply what students can do in relation to writing and information use that matters, but also what they think, believe, and experience about themselves as writers and researchers that plays a powerful role in their learning.

These two overarching themes—the rhetorical and social contexts of writing and information literacy and the gradual nature of their development—are considered more specifically in relation to several narrower topics:

- students' identities as writers and researchers;
- students' conceptions of information seeking and use;
- the tendency for information systems and research tools to decontextualize sources; and
- the challenges students often face in recontextualizing such sources.

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These studies point to the highly contextual and variable nature of writing and information practices, and thus suggest the importance of pedagogical approaches that promote learning transfer (the ability to apply knowledge and skills developed in one situation to another). The latter part of this chapter, therefore, gives particular attention to this issue of transfer, while drawing on the larger themes of this chapter.

Social and Affective Dimensions of Writing and Information Literacy Development

As many compositionists have emphasized, writing is a highly social activity when it involves active engagement with a community. Such composing often requires negotiating how one expresses a public and a personal self and is inseparable from students’ broader cognitive and social development. It thus makes sense that students’ views of themselves as writers and as researchers, and relatedly their conceptions of writing and information use as activities, would play powerful roles in how they approach composing and related information practices.\(^{11}\)

Studies on student writing and information seeking and use indicate again and again that these activities are most meaningful when students see a larger purpose in their work, a social and communicative function that helps them to view themselves as individuals with valuable ideas to share with a community to which they connect. In other words, students’ views of themselves as community participants who exchange ideas have a remarkable effect on their long-term development as writers and researchers. Compositionist Paul Rogers highlights this idea when reviewing longitudinal studies of students’ writing development. As he observes:

11. The affective dimensions of writing and information practices that intersect with these self-conceptions are also key to students’ abilities to transfer their learning from one context to another, as is considered further toward the end of this chapter.

...while growth in writing abilities is intimately connected to social interactions and is related to other forms of psychological and emotional change related to identity and self-efficacy, the bulk of descriptive changes exhibited by developing writers are arguably best viewed as movement toward greater levels of participation in particular communities of practice.\(^{13}\)

Thus, students are best supported in their development as writers when presented with meaningful and frequent opportunities to participate in particular communities of practice, both within and outside of the traditional classroom.

The long-term studies that Rogers reviews call attention to the fact that composing abilities develop gradually over time. As Rogers explains in the opening of his article, “[l]ongitudinal studies [...] with their emphasis on change over time and across contexts have proven a particularly appropriate method in understanding writing development.”\(^{12}\) As Rogers further asserts, the longitudinal research he examined “show[s] unequivocally that students develop as writers and people throughout their college experiences through interactions with a variety of sociocultural inputs.”\(^{14}\)

The same argument might be made about students’ development as researchers and critical information users, and indeed many of the studies which Rogers discusses frequently examine how students engage and write with sources. Although longitudinal research on information literacy development specifically has been far more limited (the Ethnographic Research in Illinois Academic Libraries, or ERIAL, Project is one exception discussed later in this chapter), the relevance of the research Rogers outlines to information literacy is evident in these studies’ descriptions of source use and intertextuality. For example, in Elizabeth Chiseri-Strater’s study of two college students’ writing development, a


13. Ibid., 365.

key part of students’ learning was recognizing that “their ideas were never generated totally in isolation” and that “the reading and writing served as a foundation from which writers make new knowledge.” As students developed this understanding, their focus shifted from that of a solitary writer to a view of “sources and social contexts from which discourse arises.”

Another project which Rogers explores and which has clear relevance to information literacy is Nancy Sommers and Laura Salz’s four-year study of Harvard University students’ writing development. In this investigation into how students develop as writers throughout their college education, students frequently engaged in source-based writing and developed their understandings of writing as a means of engaging in larger conversations. This research focused on students as novices who “write[e] into expertise.” Such a long-term view of learning stands in stark contrast to the tradition of one-shot library instruction that has long been the norm in library instruction programs. Sommers and Salz’s research, which looked in large part at source-based writing, has strong relevance to information literacy development and therefore deserves closer attention here.

Writing as Novices into Expertise

Sommers and Salz’s four-year study of college students’ writing is particularly useful for considering the long-term nature of writing and information literacy development and their connections to students’ broader cognitive, social, and emotional development. Through study surveys, interviews, and analysis of writing by students in Harvard University’s Class of 2001, the authors explored how students evolve as writers during their college years. Sommers and Salz give particular attention to how students’ attitudes and writing abilities are reflected in the ways they talk about writing and how that language changes over time. The relevance of the study to information literacy is evident in the authors’ description of the kinds of writing with which participants engaged, which included assignments that “ask students to work with challenging sources, argue their own ideas, and integrate their arguments into a larger scholarly debate.” Sommers and Salz identify two particularly significant characteristics of student writing development: those students whose writing appeared to develop most significantly during college “initially accept[ed] their status as novices” and “[saw] in writing a larger purpose than fulfilling an assignment.” This points to the significance of students’ beliefs and attitudes about the purpose of the writing process and their relationship to it.

Sommers and Salz’s work demonstrates the pedagogical value of foregrounding writing and research as social and communicative activities and of inviting students to view themselves as writers and researchers with ideas to contribute to larger conversations. This study has drawn particular attention to what Sommers and Salz call the “novice-as-expert paradox.” Their findings indicate that when students recognize their positions as novices, they are better able to work toward the role of expert, in large part because of the dispositions students develop in relation to the composing process. In recognizing themselves as emerging writers, students are more open to new ideas and approaches and thus are better positioned to learn.

Being a novice [...] involves adopting an open attitude to instruction and feedback, a willingness to experiment [...] , and a faith that, with

15. Ibid., 360.
18. Longitudinal research on information literacy development has been far more limited than that in composition studies. The Ethnographic Research in Illinois Academic Libraries, or ERIAL, Project is one exception that is discussed later in this chapter.
20. Ibid., 133.
21. Ibid., 124.
practice and guidance, the new expectations of college can be met. Being a novice allows students to be changed by what they learn, to have new ideas, and to understand that 'what the teacher wants' is an essay that reflects these ideas.  

In contrast, "those freshmen who cling to their old habits and formulas and who resent the uncertainty and humility of being a novice have a more difficult time adjusting to the demands of college writing." As this implies, affective dimensions of learning like attitudes and dispositions have a significant influence on writing and information literacy development and deserve considerable attention among educators across the disciplines.

Sommers and Saltz's work illustrates the powerful role that students' emerging identities as writers and researchers play in their learning process. As the authors explain, while "it may seem illogical or unfair to ask novices to perform the move of experts," freshmen build authority not by writing from a position of expertise but by writing into expertise. This process is, of course, a gradual one. Work like that of Sommers and Saltz suggests that students will benefit from a pedagogy that positions them as developing writers and researchers and that encourages them to explore issues about which they care. This leaves open much room for considering what such a pedagogy might look like. How might an instructor facilitate students' "writing into expertise" while recognizing their novice status in ways that do not dismiss students' voices or experiences? Looking more closely at students' conceptions of research and source use is one productive avenue for exploring this question.

Conceptions of Information Seeking and Use

Part of the challenge that students face in engaging with sources may be closely tied to their conceptions of sources and of those sources' functions in academic writing. A number of studies suggest that students often learn that sources are objects to be inserted into a paper, rather than that they are ideally approached as artifacts that reflect ideas developed and shared in specific social contexts. If students are to approach source-based writing as novices who are open to developing new approaches and understandings, educators across disciplines may need to prompt them to reexamine prior assumptions about source use and source-based writing.

Moreover, teachers might also examine ways that instruction about source-based research sometimes contributes to notions of sources as abstracted citations to be inserted into a paper. A number of studies examining students' and instructors' conceptions of and approaches to source-based research and writing suggest that instruction about the research process often does not encourage inquiry-driven approaches or dispositions toward research such as curiosity. In one such study of how writing students are taught to find and use sources, librarian Wendy Holliday and Intensive English Language professor Jim Rogers perceived a tendency among writing instructors and librarians to emphasize locating sources rather than learning about those sources. Holliday and Rogers observed, moreover, that this has a significant effect on how students approach research and information use. Reflecting on their observations of a college writing course taught by a compositionist and a librarian, interviews with the course instructor, focus groups with students, and analysis of students' course assignments, Holliday and Rogers note that during instruction "[s]ources were often described as external objects with attributes that could be identified in order to narrow and complete the research process" (my emphasis). More specifically, instruction about sources frequently underscored finding the "right" number of sources and the "right kind" of sources (meaning peer-reviewed articles, which were contrasted to web sources).

22. Ibid., 133.
23. Ibid.
24. Ibid.
25. Ibid., 134.
27. Ibid., 261, 265.
that the way instructors talk about sources and information seeking makes a difference in how students approach information seeking and use. While a discourse focused on finding sources and on "sources as containers" appeared to encourage more surface-level approaches to research, a discourse of "learning about sources" that foregrounded the dialogic nature of creating and exchanging information fostered more inquiry-based, dialectical strategies for engaging with both sources and with research tools used to locate sources. As Holliday and Rogers explain,

When sources are viewed as containers, it potentially diverts attention away from the content of the sources themselves. Likewise, a discourse of "learning about" directs attention to the content of sources. If internalized, both of these conceptions might serve as psychological tools that mediate how students view and engage in the research process.\(^{28}\)

This suggests, much like Sommers and Saltz's work, that students' prior experiences and understandings of source use play important roles in how they advance as researchers and as writers. Prior conceptions of source use and of writing may often stand in the way of students' developing new approaches to information and composing practices.

Many students may have previously developed internalized understandings of research and source use, perspectives that have a significant influence on how they engage in research writing. Holliday and Rogers identify a relationship between students' varying conceptions of sources and their information practices:

From the limited interactions we had with students, it appeared that some of them had already internalized the historically created artifact of source as container. By continuing to limit the discourse on sources, some students also limited their use of the artifact. [...] Other students seemed to take cues from the discourse on "learning about" and embraced a fresh approach to research.\(^{29}\)

Acknowledging the significant challenge of approaching sources with a more analytical stance, Holliday and Rogers believe that a discourse of "learning about sources" can help students develop more nuanced approaches to sources that indicate a fuller understanding of discourse as dialectical.

Holliday and Rogers' findings are further supported by earlier research in composition and by a number of studies in information science.\(^{30}\) Among the earliest and most well-known of such work is that of compositionists Robert A. Schwengler and Linda K. Shamooin, who in 1982 explored students' and college instructors' differing conceptions of the purpose and nature of research paper assignments.\(^{31}\) Through interviews with college students and college instructors from different disciplines, Schwengler and Shamooin found a clear disconnect between students' and professors' perspectives: while teachers viewed research writing as analytical, interpretive, and argumentative, students tended to view such assignments as centered on fact gathering and information reporting. These contrasting views may help to explain college instructors' common frustrations with student writing that resembles a collection of quotes, rather than analysis and argumentation that reflects awareness of one's audience and rhetorical purpose. The teachers in Schwengler and Shamooin's study, however, indicated that they rarely provided explicit guidance to students on how to approach research or source use. (Similarly, library instruction has tended to give limited time to these higher level aspects of information use.)


The discrepancy between instructors' and students' views of source-based writing is likely explained largely by their differing degrees of experience with academic and disciplinary research and writing. Teachers in Schwegler and Shamoons's interviews expressed intuitive understandings of research and disciplinary writing, perspectives that reflected tacit knowledge of disciplinary writing conventions, which these scholars used to evaluate their academic peers' work. Though these discipline-specific conventions were vital to this work, professors did not teach their students about these seemingly intuitive practices. Reflecting on their findings, Schwegler and Shamoons recommend that instructors teach about disciplinary research writing conventions in lower-level undergraduate content courses and in writing courses.

Schweger and Shamoons's conclusion that there is an important relationship between students' views of and approaches to research writing is further supported by the work of compositionists Jennie Nelson and John R. Hayes. Much of their scholarship in the 1980s and 1990s on students' source-based writing provides evidence that instruction can have a significant impact on how students approach source-based writing. In their 1988 study, the authors examined student writing process logs and writing assignments in order to better understand university students' conceptions of and strategies for source-based writing. Most students approached assignments as a matter of fact-finding, as they used "low-investment" strategies that minimized the amount of research and source analysis involved. However, more advanced students (upper classmen and graduate students) were more likely to apply "high-investment" strategies that reflected an inquiry-based approach of exploring issues.

At the same time that more advanced students in Nelson and Hayes's study were generally more likely to apply more sophisticated research strategies, assignment prompts and instruction also played a significant role in students' approaches to writing with sources: students were far more likely to apply more complex research and writing strategies that entailed fuller analysis, topic development, and strategic searching when assignments were scaffolded and when instructors provided feedback at multiple stages. Sequence assignments and feedback apparently encouraged students to view writing and source use as more than fact gathering. This suggests that assignment design and related instruction are likely to have significant effects on how students approach research and source use. Viewed together, the work of Holliday and Rogers, Schwegler and Shamoons, and Nelson and Hayes provides compelling evidence that students' conceptions of and attitudes toward inquiry and information seeking and use are significantly influenced by curricula and instruction that occur both during and prior to college.

Student Research Identities and Pedagogical Practices

Students' conceptions of and approaches to information seeking and use may be better understood when related to their views of themselves as writers and researchers. While the role of "researcher" can take many shapes, I focus here on the kind of research most frequently associated with library instruction: information seeking, source evaluation and selection, and use of sources when communicating one's own ideas.

The importance of students' identities in relation to composing and information practices is apparent in Sommers and Saltz's four-year study on students' development as writers. As discussed earlier in this chapter, Sommers and Saltz found that students who accept their roles as novice writers appear better positioned to develop as writers, likely because they approach their composing processes with greater openness and reflection than do students who believe themselves to have already mastered writing. The role of pedagogy in students' developing identities as researchers is the focal point of one project by compositionists James P. Purdy and Joyce R. Walker. They explored how writing courses approach teaching the research process, giving particular attention to

32. Nelson and Hayes, "How the Writing Context Shapes College Students' Strategies for Writing from Sources."

33. Ibid.

34. Sommers and Saltz, "The Novice as Expert."
the relationship between pedagogy and what they call “research identity” (which they define as “the confluence of skills, knowledge, attitudes, and practices that combine when an individual engages in research activities”). The authors relate “research identities” to how students approach not only their academic work, but also their positions as “civic participants.”

Though Purdy and Walker’s definition of research identity extends beyond simply finding and incorporating sources into one’s writing, their discussion of research instruction actually focuses on these particular aspects of the research process. Such teaching, Purdy and Walker suggest, does not always encourage the openness and willingness to experiment that Sommers and Saltz found to be key to developing as a writer. Purdy and Walker analyzed composition handbooks, library websites, and other relevant online resources used in composition courses to teach about the research process, in order to explore how instructional materials encourage or discourage students to develop their research identities. The instructional materials that they examined frequently implied that students should completely abandon their past experiences with online research, since such practices were considered unsuitable for academic purposes. Students’ previous research experiences were often presented as irrelevant or even harmful to their academic success, an idea that appears to be based less on fact than on an outmoded conception of “a linear, print-based model of research” that runs counter to the iterative writing process often encouraged in composition studies. As Purdy and Walker assert,

the new research identities constructed for students through these texts are often based on a linear, print-based model of research, in which a “good” student researcher is one who is efficient and follows only prescribed pathways—paths that frequently designate or deny the experiences of using nonacademic and online research spaces that students bring to academic writing tasks. Being a “good” academic researcher, according to these texts, requires students to leave behind their existing identities as online researchers.

For example, a chapter in the textbook Research Strategies for a Digital Age describes topic development as a task completed before engaging with sources, rather than as an ongoing process that unfolds throughout the research process. As Purdy and Walker point out, such a representation of research resembles earlier cognitive process models of composition which implied that writing is more linear and predictable than it actually is. Purdy and Walker conclude that college writing courses tend to present a formulaic approach to research that does not illustrate the purposes and processes of research and that does not adequately recognize students’ identities as researchers.

Such misrepresentations of academic research and of scholarly sources give little attention to the ways in which one’s task and purpose can inform one’s research approach. These documents thereby present a limited view of research that creates little room for student creativity and exploration. It is important to note that although Purdy and Walker foreground writing curricula in their discussion, a similar argument could be made for library instruction. The tendency in English composition to describe research as linear may, however, seem more surprising, given the extensive work in the field over the past decades that emphasizes writing as a highly recursive process.

Not only might these representations of research prevent students from developing effective approaches to research, they may also discourage students from approaching research with the curiosity, inquisitiveness, and self-motivation that are key to engaged learning. Purdy and Walker thus argue for the importance of acknowledging students’ previous research experiences. From Purdy and Walker’s perspective, instructional materials about academic research frequently “[p]osition[] students as ‘unskilled’ or ‘illiterate’ researchers,” and may thereby “damage students’ ability to create a ‘healthy’ academic identity.”

One might argue that there is a tension between, on the one hand, Purdy and Walker’s argument that students’ previous experiences with

36. Ibid.
37. Ibid.
38. Ibid., 22.
information seeking are too readily dismissed, and on the other hand, Sommer and Saltz’s stress on the need for students to accept their roles as novices. These two perspectives, however, might work in complementary ways: when students are encouraged to reflect critically on their past experiences and views of information seeking and use, they might consider what has or has not worked and remain open to other approaches. In other words, through metacognitive activities students can draw on prior experiences while also recognizing that their past strategies are not necessarily the most useful for all contexts. Students’ acceptance of a novice role in relation to source-based academic research might be particularly important given the apparent tendency among college students of overestimating their information seeking and evaluation skills (as is suggested by numerous research studies).

Purdy and Walker’s findings about common approaches to research instruction are further supported by the work of librarians Melissa Terry-Bowles, Erin Davis, and Wendy Holliday, who conducted a similar analysis of composition and library instruction materials several years earlier. They also found that most instructional materials about the research process used in writing classes (and created by both compositionists and librarians) presented research as a linear and procedural process.

Purdy and Walker’s views of pedagogy’s influence on students’ research identities are to a great extent supported by librarians Robert Detmering and Anna Marie Johnson’s qualitative study on first-year composition students’ emerging identities as researchers. Using student interviews and written “literacy narratives” about students’ experiences with locating, evaluating, and using information, Detmering and Johnson found that students’ conceptions of sources and of research writing likely have a powerful effect not only on their actual research assignments, but also on their overall dispositions toward (or away from) research. Because college courses often require that students engage with research in unfamiliar ways, their relationships to research are often conflicted and marked by anxiety or even dread. Students involved in this study often described research with negative terms such as “torture,” though they also sometimes expressed tentative enthusiasm about a research topic that interested them.

Interestingly, in Detmering and Johnson’s study, the students’ struggles with their research identities appeared linked to how instructors restricted students’ research through, for example, assignment parameters with purposes that were not self-evident. Analysis of these students’ narratives suggested that a key factor in students’ experiences with academic research is their sense of autonomy and ownership over their research, which often existed in tension with their relationships to their teachers. As Detmering and Johnson explain, students’ narratives revealed not only how students conceive of research while negotiating “their often tenuous roles as researchers,” but also how students raise larger “questions of authenticity and power in the classroom” (for example, what “counts” as academic research and who has the authority to determine the quality of research).

These narratives also conveyed a common frustration among students about the difficulty of engaging with research writing in a personally meaningful way. Students often described research as menial, or in


41. Bowles-Terry, Davis, and Holliday, “Writing Information Literacy Revisited.”


43. Ibid., 6.
the words of one student, as a matter of “spitting out information,” “pulling out a bunch of quotes,” and “past[ing] together” those quotes in order to create “a collage of plagiarism that people actually accepted as a real paper.” In contrast, students conveyed enthusiasm when they felt a personal connection to their topic and thus approached research as a process of inquiry. It appears that students usually expressed uneasy feelings about academic research when they did not feel particularly engaged in their topics.

As these comments imply, and as Detmering and Johnson observe, “[s]tudents want their own voices to be present in the paper. They want the voice to be authentic, but the way that they have conceptualized or understood library or academic research creates a struggle for many of them to achieve what they feel is an authentic piece of ‘research.’” Much as in Sommers and Saltz’s 2004 study, students’ emergence as writers and as researchers appeared closely tied to their developing identities and the expression of their own “voices.” In other words, it is when students see a larger social and communicative purpose and meaning in research and writing that they are most engaged in these processes and most motivated to continue developing as researchers and writers.

Decontextualized Information and the Illusion of Technological Neutrality

Although most college instructors probably want their students to approach source-based writing as an analytical activity, studies that offer a closer look at college teaching practices—like those of Purdy and Walker and of Holliday and Rogers—provide evidence that instructors often present the processes of finding and using sources as primarily mechanical (i.e., use these particular research tools to obtain X number of sources). Though the desired instructional goal might be teaching analytical and rhetorical approaches to source-based research, instruction often implies that the end goal is gathering objects. This disjunction between pedagogical goals and approaches relates to questions that drive much of this book. Why does instruction about research so often present a formulaic approach that belies how scholars actually do research and how they hope for students to approach research? How can instruction about information seeking and use better support students in developing more purposeful strategies for engaging with sources? I will now give particular attention to how procedural approaches to information literacy instruction may be tied to perceptions of library resources and information retrieval systems (like library databases) as neutral objects.

As noted at the beginning of this chapter, one likely reason for the often mechanical approach taken to teaching the research process is reflected in Pawley’s description of information’s decontextualization, which is especially evident in library information systems and retrieval tools that cannot provide a very full picture of the context in which sources originate. Pawley, as also quoted in this chapter’s opening, writes that “the conceiving of information as a thing—the ‘reification’ of information—has permitted us to treat it as a commodity […]” Yet, she later asserts, “this apparent decontextualization is illusory. Information never stands alone—it is always produced and used in ways that represent social relationships.” This decontextualization is especially evident with research tools like Internet search engines and library databases. While such resources serve valuable functions, they also extract information from its original places of creation and distribution, thus making it easy to overlook the context in which that information came to exist and how it relates to other sources and conversations.

The common notion of technology—and more specifically of digital research tools—as neutral may further reinforce a mechanical and linear approach to using search tools. Some studies suggest that the unwarranted degree of trust that students (and probably most individuals) place in search tools to yield unbiased and relevant results may be attributed

44. Ibid., 12.
45. Ibid., 13.
47. Ibid., 433; Apple, Official Knowledge, 68.
largely to this illusion of technology as purely objective. Although students frequently report that they have little difficulty finding information online, the very research tools that make information retrieval appear so easy may also mask the importance of carefully evaluating sources. The ease of retrieving some kind of information—even if that material is not the most relevant—may help to explain students’ tendencies to overestimate their information seeking abilities.

As anthropologist and librarian Andrew Asher explains, although no search system can be entirely neutral, students (and most Internet users) have learned to place significant trust in search engines and their relevance rankings to provide accurate and unbiased search results. Such an overreliance on the “accuracy” of Internet search engines appears to have greatly influenced students’ approaches to library database searching as well. As has been illustrated by a number of empirical studies, students tend to choose the first few information sources retrieved through their information searches. When asked about their search strategies, these students frequently describe this strategy as effective. (This tendency is not unique to students, as is suggested by other research on information seeking behaviors.)


50. Asher, “Search Epistemology: Teaching Students about Information Discovery.”


Add to this the common practice among teachers, including librarians, to instruct students that databases are superior to Google because they include more “authoritative” sources. This reinforces the view that research tools will yield relevant and useful results; it also suggests that the search tool through which one locates information is an accurate, or at least sufficient, proxy for determining a source’s credibility.

Such trust in search engine and database relevance rankings is apparent in students’ uses of library discovery tools (“super” databases that search across library databases and catalogs in order to provide a more seamless search experience that more closely resembles that of Google searching). In a study of eighty-seven undergraduate students’ work with discovery tools, Asher observed individual students as they searched for sources for a hypothetical research assignment. Asher also conducted semi-structured interviews with students about their research and information searching experiences while working on the research assignment. These students rarely evaluated sources with much depth, rarely looked past the first page of search results, and almost never used more search strategies beyond keyword searching. As Asher observes, “[b]ecause of this belief that the most credible […] sources should be found on the first page of search results, students often assumed that if they could not quickly locate information then it must not exist.”

The study findings suggest that while discovery tools (as well as nonlibrary search tools like Google and Google Scholar) have probably reduced the “cognitive load” exacted by libraries’ various and fragmented […] tools, the practices supported by these tools can reinforce unreflective search habits that diminish the overall quality of the information found and used and, by extension, the synthesis of an academic argument.


53. Ibid., 144.
The purpose of locating sources may get lost amidst information overload and a focus on fulfilling basic assignment requirements.

It is worth reiterating that students are probably not the only individuals who place too much reliance on the relevance rankings of information retrieval systems. Our culture as a whole has become accustomed to turning to search engines like Google for information that quickly answers our questions. These digital tools have become so central to our everyday lives that they are often taken at face value, as if they are immune to reflecting bias. This illusion of neutrality may be exacerbated when using resources like library databases, since such tools are often presented and viewed as offering higher-quality and more authoritative information. Asher notes that individuals, including academics, often mistakenly approach library databases as neutral tools. A deeper understanding of how search tools organize and retrieve information may help students to recognize them as imperfect systems and to develop more sophisticated search strategies, while also approaching source evaluation and selection with deeper thought. Asher recommends that librarians (and, I would add, other educators) teach students about how search systems and relevance rankings generally work, while also placing a greater emphasis on closer evaluation of sources themselves.44 Asher’s recommendations are a reminder that, while many college classes emphasize critical thought in relation to specific subject matter, the constructed nature of search tools is usually overlooked in our everyday lives and in the classroom. Instead, information literacy instruction can stress a critical approach to both individual sources and to the search tools through which they are located.

Librarian and writing instructor Ruth Mirtz describes the decontextualized nature of the sources located through databases and search engines as a “disembodiment” of information sources. Because search results are removed from the contexts in which the represented sources have been created and circulated, it is easy to forget the rhetorical contexts in which those materials came to be. Those sources may appear removed therefore from the “real” world. Thus, it is also easy for the research process itself to become perfunctory and for researchers to become disconnected from their research purpose. Mirtz’s description of “disembodied sources” closely aligns with Pawley’s idea of decontextualized information.

The common assumption that library databases are relatively free of bias, Mirtz argues, may help to explain why English composition scholars have tended to focus on the writing of the research paper, while giving limited attention to how searching for sources affects the writing process.55 In 2008 (about five years before Asher’s Discovery Tools Project), Mirtz sought to address this gap in the writing studies literature by conducting a study of the database search processes used by eighteen first-year college students who were locating sources for a research assignment. Many of her findings closely resemble those of the Discovery Tools Project: students rarely looked past the first page of databases’ search results, seldom tried using alternate terms after initially unsuccessful searches, and were more likely to change their research topic according to what was most convenient to find, rather than trying alternative strategies. If students did not find relevant sources immediately, they seemed to believe relevant sources did not exist. As Mirtz explains,

The way students […] used library databases indicates that they saw themselves as subjects with a linear, single purpose, independent of variables. The students […] apparently learned that database searching is like rummaging around in a stranger’s attic full of random items saved over the years.56

The idea that locating useful sources depends largely on luck rather than on strategic searching suggests not only a limited understanding of how databases are organized and used effectively, but also the difficulty of conceiving of sources as intertextual and representative of larger

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54. Ibid., 147.
56. Ibid., 201.
conversations within a given community. As Mirtz notes, “[s]tudents’ sense of authority, thus, becomes as disembodied as the articles in the databases.” Students struggle to recognize the larger context in which these sources have come into existence and in which they have been organized. Moreover, students likely experience themselves as removed from their research topics, rather than as having something valuable to say about those topics.

To address the sense of “disembodied” research that often occurs during information searches, Mirtz asserts the need for illustrating “how the databases are a kind of conversation among the scholarly community and are only apparently random, as one’s Twitter feeds might look to a stranger.” Drawing on the work of Mark Poster, she argues for approaching database searching as, like the writing process, part of the rhetorical situation one considers when engaging with a research assignment. Such an approach reflects connections between writing studies and information literacy that have received limited attention, but which are central to helping students engage with all aspects of research as rationally situated activities.

Similar recommendations have been made in light of high school students’ approaches to evaluating sources online. Information science professor Andrea Forte describes students’ different approaches to source evaluation in terms of “first-order” strategies (i.e. heuristics) and “second-order” strategies that require more critical thinking. Students in her study tended to use surface-level approaches to searching and to selecting sources when choosing from a list of sources ranked by relevance in a search engine like Google. However, when creating writing content in online participatory environments like Wikipedia, students often use second-order strategies for source evaluation, demonstrating awareness of how information is produced and the particular purposes of their tasks.

Forte, remarking on the sense of ownership in creating and sharing knowledge that students expressed when creating content in public information sources like Wikipedia, concludes that students’ abilities to engage in second-order evaluation strategies are due largely to their experiences in belonging to a community of collaborative peers and writing to a real, public audience. To extend Mirtz’s metaphor of disembodiment, research appears then to be embodied, connected to life and to students’ experiences. Forte’s conclusions appear in keeping with Mirtz’s argument that in order for students to evaluate and to use sources in more nuanced ways, they need to understand the social contexts in which those sources came to exist, rather than seeing them merely as objects retrieved through a supposedly neutral algorithm. Similarly, Asher believes that teaching students about how search tools function can help them to recognize research tools as socially constructed objects whose results may not always yield the most relevant information.

**Recontextualizing within Unfamiliar Conversations and Environments**

Evaluating and using sources in the more sophisticated ways that Mirtz, Asher, and Forte describe, of course, is by no means easy. This is evident in research like that of the Citation Project. A multi-institutional research initiative, the Citation Project’s larger aim is to address concerns about student plagiarism by examining how students use sources in their college writing assignments. The project’s key findings have raised serious concerns about students’ abilities to critically read, comprehend, and use sources and have encouraged college educators to reconsider how students are taught about source use.
likely need extensive practice in reading and interpreting such sources before they can be expected to write about them in more nuanced ways.

Reflecting on these and other Citation Project studies, Jamieson and Howard argue that these findings point to "a compelling need to overhaul the teaching of researched writing in college classes." The pedagogy they propose would require that students "talk with and about a source rather than merely mine sentences from it." This, they explain, "involves walking students through texts and modeling for them the kind of engaged reading and rereading that we expect of them." Holliday and Rogers echo this idea in their later study on the discourses used to describe information seeking and use. As noted earlier, they recommend using a discourse of "learning about sources" over a discourse of "sources as containers." Such approaches to teaching can be a joint effort among educators. As Jamieson and Howard assert: "We hope that our campus librarians and our faculty colleagues in writing programs across the disciplines will take these findings as a mandate for instructional change."

While the Citation Project has concentrated on how students' source use is demonstrated in writing assignments, other studies have given more attention to how students navigate libraries and research tools (like library databases and Google) while completing research assignments and other coursework. Project Information Literacy (PIL) is perhaps the most well-known and expansive research project concerning how students seek and use information in university settings. Since 2008, PIL has been conducting large-scale national studies of young adults and their information behaviors. This research demonstrates a need for college instruction and curricula to address more fully the challenges of information seeking and use, particularly in the digital age.


63. Ibid., 177. Howard has defined patchwriting as "[c]opying from a source text and then deleting some words, altering grammatical structures, or plugging in one-fo-one synonym-substitutions" (Rebecca Moore Howard, "A Plagiarism Pentimento," Journal of Teaching Writing 11, no. 3 [1992]: 233).


65. Ibid., 130.

66. Ibid.

67. Holliday and Rogers, "Talking About Information Literacy."

68. Jamieson and Howard, "Sentence-Mining: Uncovering the Amount of Reading and Reading Comprehension in College Writers’ Researched Writing," 130.
Although discussions about how students search for information and how they use sources in their writing often appear somewhat disconnected, the 2009 PIL study Finding Context: What Today’s College Students Say about Conducting Research in the Digital Age illustrates that key principles of writing—like the context-dependent nature of composing—are also essential to information searching.69 Drawing on findings from eleven focus groups conducted with students at seven U.S. colleges and universities, the PIL authors Alison J. Head and Michael B. Eisenberg conclude that among the greatest challenges for students in conducting research in the digital age is determining the context for which they will use information. As the authors report:

Context, as we came to understand it in the sessions, is key to understanding how students operationalize and prioritize their course-related and everyday life research activities. In our discussions, students consistently referred to “finding context,” in one form or another, as the most laborious, yet requisite, part of the research process.70

The authors identify four context types that students sought during their research:

- big picture (which involves selecting and defining a topic and recognizing different sides of an argument);
- language (such as terms and discourse related to a topic);
- situational (determining parameters of a topic and expectations for the task); and
- information gathering (finding and accessing relevant resources).71

Both “everyday life” research and course-related research presented significant difficulties for students, though they reported that the latter was far more confusing. The challenges students described included “[n]ot knowing what to look for, yet still sifting through articles that might fit,” “[f]eeling that nothing new is being said” and that one is simply seeing “the same information again and again,” and “[i]nformation overload.”72 The finding that students seek to contextualize their research process from various angles is encouraging, given the importance of that process for meaningful inquiry. The effort that students gave to determining a context for their research also supports the Citation Project’s conclusions that student plagiarism is likely due less to a lack of effort on students’ part than to the challenge of this process of contextualization. As Head and Eisenberg reflect, “[i]n general, students reported being challenged, confused, and frustrated by the research process, despite the convenience, relative ease, or ubiquity of the Internet.” Common frustrations included information overload and the continually-changing and vast nature of digital information environments, which tend to extract information from its origins.73 PIL participants’ considerable struggle with and inexperience in determining context during their research suggests the importance of expanding instruction on the purpose of research in specific contexts.

The idea that students do not receive sufficient instruction in college about determining the contexts that should inform their research process is further supported by another PIL study conducted in 2010. In this case, the researchers analyzed 191 course-related research assignment handouts given to undergraduates at twenty-eight colleges in the U.S.74 Most handouts emphasized procedural standards like the inclusion of a bibliography and the number of sources to use, while most assignments did not include information about more challenging aspects of research, like narrowing a topic or developing a research question. The stress that

70. Ibid., 5.
71. Ibid., 5–9.
72. Ibid., 4.
73. Ibid., 13.
74. Head and Eisenberg, Truth Be Told.
most assignment handouts place on basic assignment requirements likely contributes to giving less attention to using sources in purposeful ways. And while it is likely that students received further guidance about their assignments that was not included in these handouts, many of these materials often included guidance that does not accurately reflect how information is accessed through library collections today. For example, sixty percent of assignments emphasized consulting library shelves more than library databases, catalogs, or other online resources, despite the fact that most libraries’ digital collections are now much more extensive than their print materials. Moreover, few handouts recommended speaking with a librarian (a reminder that the partnerships between academic librarians and course instructors at most institutions is not as strong as we might like). This study, Head and Eisenberg conclude, “suggest[s] that handouts for academic research assignments provide students with more how-to procedures and conventions for preparing a final product for submission, than guidance about conducting research and finding and using information in the digital age.” This becomes more concerning when related to the 2009 PIL study “Finding Context,” which indicates a clear need for greater guidance for students in determining their research purpose and seeking information in digital information environments.

PIL’s conclusions are supported by similar findings of the ERIAL Project (Ethnographic Research in Illinois Academic Libraries). The ERIAL Project, like Project Information Literacy, explored how students use information and libraries in university settings, as it focused on what students do when given a research assignment. In this two-year study, conducted at five Illinois colleges and universities from 2008 to 2010, anthropologists and librarians employed a range of qualitative research methods, including interviews, photo journals, mapping diaries, and research journals, in order to gain a fuller picture of how students do academic research, what challenges they encounter, and how they seek help.

While the researchers initially expected that students would have difficulty with using library search tools like databases, they found that once students had basic training on these resources, technology was not the greatest obstacle. Rather, the most challenging aspects of research for students related to activities like reading and understanding citations, comprehending cataloging and information organization systems, developing search strategies beyond simplistic “Google-style” searching, and locating and evaluating resources of all types. As one of the researchers commented, students at all five institutions “seemed lost at almost every step in searching, retrieving, and comprehending the nature of the information they had found, whether online or in print.”

This again indicates a need for information literacy instruction that stresses larger rhetorical contexts and purposes that drive inquiry. Moreover, it suggests the pedagogical value of emphasizing conceptual understandings over mechanical procedures, since students’ conceptions of sources and source use appear to significantly influence how they approach writing and source use. As I will discuss next, a pedagogical focus on rhetorical context and conceptual understandings is likely to help students not only in finding relevance in a specific writing or research task, but also in engaging in writing and information practices across a range of disciplines and contexts.


Learning Transfer: Writing and Researching across Contexts

Learning transfer, the ability for individuals to apply concepts, knowledge, and skills used in one situation to another, has been of significant interest to compositionists for some time. More recently, it has become a wider topic of conversation among instruction librarians. Transfer's importance to writing and library instruction is perhaps most evident in the fact that, although writing and information practices can vary greatly from one context to another, composition and library instruction usually are intended to help students develop skills that can be applied in various situations. In composition studies the "transfer question" (whether transfer happens and if so under what conditions) has been a significant point of debate and research in recent decades. Undergraduate writing courses are usually intended to support students in developing generalized abilities that will enable them to succeed through their education, but most writing occurs in very specific contexts, each of which has its own unique composing conventions and criteria for good writing. Whether or not students are able to transfer their learning across situations thus has significant implications for first-year writing programs.

The same can be said for library instruction, which is also usually intended to teach transferable skills. As library instruction becomes more informed by pedagogical research and theories, librarians' interests in transfer research are growing, though scholarship in this area is still quite limited. As Rebecca Z. Kuglitsch argues, librarians might look to work in composition studies in order to develop instructional models that foster learning transfer for information literacy. An increasing amount of research on transfer supports the idea that transfer is far more likely to occur when an instructor teaches for it.


84. Ibid., 20.
3. "The teaching of metacognitive skills should be integrated into the curriculum in a variety of subject areas."[^85]

These points resonate with much of the work in writing and rhetoric on students’ writing development. For example, Sommers and Saltz’s four-year study of college students’ writing development (discussed earlier in this chapter’s section “Writing as Novices into Expertise”) gives considerable attention to the first point: that teachers encourage students to examine and work with their preexisting understandings. Related to this is the fact that prior learning, when based on incorrect information or assumptions, can prevent new learning. This is often called negative transfer. (Again, Sommers and Saltz found that students who accepted their roles as novices experienced the greatest gains in developing their writing, while students who were initially more skilled writers but who held onto old views of composing progressed far less and were ultimately less sophisticated writers.) Sommers and Saltz’s research suggests that students’ prior conceptions of writing, if unacknowledged, can stand in the way of advancing their abilities. On the other hand, when students accept their roles as novices they may be more open to new understandings of and approaches to writing.[^85]

These findings align with Giyoo Hatano and Kayoko Inagaki’s idea of “adaptive expertise.”[^87] As explained in *How People Learn*, when individuals “realize that what they know is miniscule compared to all that is potentially knowable,” they are more likely to transfer learning across situations because they “are able to approach new situations flexibly and to learn throughout their lifetimes.”[^88] Through adaptive expertise, an individual develops creative, flexible approaches to a task or problem when unique or new situations are encountered. Because the context is different, an approach that might work well in another situation must be adapted.[^89]

This suggests that the attitudes and dispositions one brings to learning play an important role in the potential for learning transfer. According to *How People Learn*, these dispositions and attitudes can be drawn out, explored, or developed through metacognitive activities. (As noted previously, *How People Learn*’s third main conclusion is the value of curricula that foster metacognition.) The importance of dispositions and attitudes to learning transfer is further reflected in composition research on students’ motivations for their writing. For example, Linda Bergmann and Janet Zepernick found that when first-year writing students did not perceive that their course writing had relevance to their other studies, they experienced a lack of motivation. These students’ writing in later courses suggested little evidence of learning transfer.[^90] In contrast, when students are told that transfer is an intended goal of their courses, they may be more motivated to develop their composing abilities, as Tracy Ann Robinson and Vicki Tolar Burton found.[^91]

Giving time to students’ preexisting knowledge and dispositions may mean slowing the pace at which new content is presented. This is in line

[^85]: Ibid., 21.
[^86]: Sommers and Laura Saltz, “The Novice as Expert.”
[^89]: Hatano and Inagaki, “Two Courses of Expertise.”
[^90]: Interestingly, students in Bergmann and Zepernick’s study ascribed the composition course’s perceived irrelevance to the personal and subjective nature of the writing associated with these classes. Perhaps because this writing was so different from what was expected of students in other courses, they had difficulty relating the work done in the composition classes to what they viewed as “the objective, fact-based, information-telling writing demanded elsewhere in their academic and professional lives” (Linda S. Bergmann and Janet Zepernick, “Disciplinarity and Transfer: Students’ Perceptions of Learning to Write,” *WPA: Writing Program Administration* 31, no. 1–2 [2007]: 131).
with *How People Learn's* second main takeaway for teaching: that depth of subject content is more important than breadth, and that this content should be related to core concepts that help students see their learning in relation to a larger picture. Such a pedagogical approach is supported by the research described in *How People Learn* on how experts organize knowledge and approach problems by working from a conceptual framework. The authors identify several features of expert knowledge that differ from that of novices, including noticing "meaningful patterns of information" and organizing an extensive amount of knowledge "in ways that reflect a deep understanding of their subject matter." These characteristics of expertise suggest that instruction ideally should encourage students to develop their own conceptual understandings of the subject matter about which they are learning. As stated in *How People Learn*, "[t]he fact that experts' knowledge is organized around important ideas or concepts suggests that curricula should also be organized in ways that lead to conceptual understanding." However, this is often difficult to do because of an emphasis in much of curriculum design on covering an extensive amount of content. As the authors assert, "[o]ften there is only superficial coverage of facts before moving on to the next topic; there is little time to develop important, organizing ideas." Reducing the amount of instructional content allows more time for engaging with concepts and conceptual frameworks and may thus be a far more effective way of supporting learning.

The process-oriented nature of writing and information practices might initially appear to be at odds with a pedagogy centered on developing conceptual frameworks, since writing and information literacy are often viewed as skills taught in the service of other academic disciplines, rather than as areas of study in their own right. But the extensive scholarship on writing and information literacy makes clear that writing and information practices are indeed complex areas of study that are informed by broader concepts and conceptual frameworks. Compositionists Douglas Downs and Elizabeth Wardle, frustrated by the difficulty of teaching general writing courses that are not situated within a disciplinary context, argue that using writing studies as the disciplinary lens for introductory writing courses will help students develop strong writing abilities that can be applied across contexts. They propose a "Writing about Writing" (WAY) model for composition courses. This WAY model is founded on the idea that when writing courses teach about composition as a discipline in its own right, rather than as something done only in the service of other disciplines, students are more likely to develop transferable skills and a deeper understanding of the writing process. Downs and Wardle's WAY curriculum provides further evidence that such teaching approaches can be effective. In their first-year WAY courses, they found that students conveyed greater self-awareness of their writing skills, developed fuller understandings of research writing as conversational, and improved their reading abilities and confidence.

A similar approach to information literacy instruction, one that approaches information literacy as an area of study and that encourages students to develop their own conceptual frameworks about information creation, distribution, circulation, and use, appears to guide the thinking behind the ACRL Framework for Information Literacy for Higher Education, which is structured by six intersecting conceptual understandings considered essential to information literacy. Though this document does not explicitly mention transfer, transfer's relevance is evident throughout the text in descriptions of information literacy as "extending the arc of learning throughout students' academic careers" and as a shared responsibility of librarians, faculty, and students. This suggests that the ACRL Framework, put in conversation with work on learning transfer, can be a valuable tool for teaching about information through a more conceptual lens.

Yancey, Robertson, and Taczak have drawn on Downs and Wardle's WAY model, as well as other research on transfer, in developing a

93. Ibid., 42.
94. Douglas Downs and Elizabeth Wardle, "Teaching about Writing, Righting Misconceptions: (Re)envisioning 'First-Year Composition' as 'Introduction to Writing Studies,'" *College Composition and Communication* 58, no. 4 (2007): 572-573.
"Teaching for Transfer" (TFT) writing curriculum. This curriculum is also heavily informed by the research gathered in *How People Learn*. In their book *Writing Across Contexts*, Yancey, Robertson, and Taczak discuss how such work on transfer has informed their TFT curriculum, which was the focus of their own study on writing transfer. The authors draw particular attention to *How People Learn*’s discussion of novices’ and experts’ differing behaviors and what this suggests about teaching that foregrounds metacognitive thinking and conceptual frameworks. The TFT course sought to promote transfer through three interrelated approaches:

1. The introduction of key concepts and terms that provided a language through which to think about writing conceptually
2. Reflective writing activities in which students considered their experiences with course writing assignments
3. A cumulative writing assignment in which students drew on key vocabulary and earlier reflective writing in order to articulate their own theory of writing

To evaluate whether the TFT curriculum proved effective, Yancey, Robertson, and Taczak conducted student and instructor interviews, analyzed student writing samples, and analyzed course materials in the TFT course and in two other sections of first-year composition. They found that students who had enrolled in the TFT course were more likely in future semesters to have transferred the developed writing knowledge and abilities because they “had the advantage of a language and framework they had made their own.” The key concepts and terms introduced in the TFT course offered a vocabulary through which students could “create[] a composing passport to help them cross new writing boundaries.” These findings support the researchers’ hypothesis that students would gain a deeper understanding of writing through a course that was “organized through key terms or concepts rather than through a set of assignments or processes.”

Though some library instruction also emphasizes conceptual understandings and metacognition, and though these are also key elements of the ACRL Framework, at the time of this writing I am not aware of similar “teaching for transfer” curricula that have been applied to information literacy instruction. Such a pedagogy could likely be relevant to a growing number of credit-bearing information literacy courses. (I am currently exploring the possibilities for such a curriculum for an undergraduate information literacy course that I teach.) The growing amount of scholarship on teaching information literacy through the lens of conceptual understandings suggests that related scholarship can richly inform such approaches to teaching for transfer.

Librarians and compositionists might also explore together ways that teaching information literacy and writing as integrated processes can promote transfer. (Yancey, Robertson, and Taczak’s curriculum does indeed reflect connections between information literacy and writing, though their focus is understandably foremost on writing as an area of study.) Given the complexity of developing conceptual frameworks about writing and information literacy, I would conjecture that in many cases (especially in introductory courses) a “teaching for transfer” curriculum will likely be more effective if it focuses primarily on either writing or information literacy as an area of study. In either of these scenarios, however, intersections between writing and information literacy will likely help in conveying the larger social and communicative functions of writing and information practices. A “teaching for transfer” curriculum that centers heavily on the intersections between writing and information studies might be more effective in specialized, upper-level

96. Yancey, Robertson, and Taczak, *Writing across Contexts*.
97. Ibid., 67.
98. Ibid., 65.
99. Ibid., 76.
100. Ibid., 40.
courses in which students have already gained some exposure to and practice with academic writing and research.

Composition research on transfer often addresses many conceptual dimensions of information practices, though to my knowledge there has not been research focused on learning transfer when writing and information literacy are approached through a shared conceptual lens. The recent attention given to the role of conceptual understandings and frameworks to both writing and information literacy education presents opportunities for exploring this question further through empirical research and through everyday teaching practices. Recent collaborations between compositionists and librarians interested in the ACRL Framework for Information Literacy for Higher Education and the WPA Framework for Success in Postsecondary Writing suggest such possibilities. Chapter 4 discusses several such collaborations more fully.

The research studies and pedagogical approaches explored throughout this chapter have implications for transfer. They suggest that as librarians and writing instructors hope for students to apply their learning to situations outside of our classrooms, students need to be given more opportunities to reflect on their writing and information practices in various contexts, as well as to draw connections between those experiences while considering broader conceptual understandings that inform writing and information practices. This scholarship also points to the importance of holistic pedagogical approaches that take into account the interconnected cognitive and affective domains of learning. As compositionists and instruction librarians continue to consider the intersections between our fields, we might explore further whether and how teaching writing and information literacy as interrelated can further support students in transferring their learning as they make connections between their writing and information practices.

**Reexamining Pedagogical Practices**

Research on transfer, like other work on student writing and information literacy development, makes clear that these abilities progress slowly over time and not always in a linear fashion. And yet the American education system’s assessment-driven environments, in which student learning is often “measured” at a single moment in time and through questions with clear-cut answers—often discourage the kind of deep learning that is vital to writing and information literacy development. Research on writing and information literacy development, including the studies explored in this chapter, illustrates that given the complexity of writing and information literacy, students need ongoing opportunities to gain practice with discrete skills and tasks, as well as with integrating those skills and applying them to various types of situations. Such learning experiences should also provide students with opportunities for feedback that helps them to reflect further on their processes. How those learning experiences are structured and presented to students is likely to have a considerable impact on how they approach writing and engaging with sources. As Jamieson and Howard argue, reading and comprehending sources is fundamental to being able to engage critically with sources and thus needs to receive far more attention in college curricula.10 For if students do not comprehend a source or recognize its larger arguments and purposes, how can they incorporate it into their own composing in meaningful ways? This may sometimes mean that students are only asked to search for and select sources at a later point in their learning, after they have developed stronger foundational reading and analytical skills that better enable them to determine a purpose for selecting and using additional sources.

As many of the studies described in this chapter show, there is often a disconnect between how academics do research and how they teach it. The disjuncture is likely explained in part by the challenges of teaching complex tasks within constraints of a given curriculum and academic term. It is much easier, for example, to tell students simply to use peer-reviewed sources than to expect them to discern themselves whether a source is credible or not. Yet most educators ultimately want students

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10. Jamieson and Howard, “Sentence-Mining: Uncovering the Amount of Reading and Reading Comprehension in College Writers’ Researched Writing.”
to be able to evaluate critically a wide range of sources, including non-
scholarly information that students are more likely to encounter when
they have completed their formal education.

The common gap between what students should ideally learn in
college and what is stressed in coursework and assignments may call
to mind recurring debates about writing and research instruction, such
as whether the traditional research paper assignment has any relevance,
whether students should be encouraged or dissuaded from using online
sources like Wikipedia, and how to address student plagiarism. These
questions can help to open productive conversations among librarians
and English compositionists, and yet instead they sometimes seem to
become barriers to dialogue. For example, some course instructors state
that they do not assign research assignments because the products are
disappointing and because use of outside sources is more likely to result
in plagiarism. Others assign research assignments but advise students
to locate sources only through library databases, hoping that students
will then select more authoritative information.

Studies like those presented in this chapter can help composition-
ists and librarians consider our pedagogies from new angles, as such
research serves as a catalyst for reflection and dialogue. The sample
of studies considered in this chapter make apparent the vital connections
between writing and information literacy and the pedagogical value of
teaching both as interrelated. Several recurring themes of these studies
have particularly important implications for our teaching. These studies
point to the value of pedagogical approaches such as scaffolding and
inquiry-based instruction. More specifically, approaches to scaffolding
can involve:

- approaching writing and information literacy development as
  long-term processes, in part through a reduction of instructional
  content and an increased use of instructional scaffolding that
  provides multiple opportunities for student practice and reflex-
  tion and for feedback on writing and research practices;

- supporting students as developing writers, researchers, and com-
  munity participants, as students build on prior knowledge and
  experiences, while also accepting their roles as novices who (as
  Sommers and SALTZ might say) are writing and researching "into
  expertise,"

- carefully considering approaches to instructional scaffolding, in
  individual courses and in curricula more broadly.

Relatedly, inquiry-based teaching can:

- foreground inquiry as an exploratory, recursive, and situated pro-
  cess that is driven by issues that matter to real-world audiences;

- give significant attention and time to instruction on reading,
  comprehending, and analyzing sources, while also emphasizing
  the rhetorical contexts in which sources are created, distributed,
  and exchanged;

- represent and involve discussions about information sources as
  avenues through which to identify and explore questions, rather
  than as information containers or abstracted objects; and

- approach information systems and research tools as cultural
  artifacts open to rhetorical analysis, thereby challenging the con-
  ception of research technologies as neutral.

Many of these studies’ pedagogical implications also have particular
relevance to teaching for transfer. Such strategies include:

- presenting students with key vocabulary and concepts that
  assist them in understanding writing and information practices
  conceptually;

- inviting students to apply that vocabulary to identifying patterns
  in and connections between their own writing and information

practices in order to develop conceptual understandings and frameworks; and

- presenting students with opportunities for reflection and meta-cognitive thinking about their experiences as developing writers, researchers, and community participants in order to foster self-directed learning and learning transfer.

These pedagogical implications are relevant not only to compositionists and librarians; they may also inform writing and information literacy instruction across subject areas.

The fact that writing and information literacy are vital to all subject areas suggests one further reason for librarian-compositionist collaboration that I have thus far given little attention: the potential for our professions to advocate for and support broader curricular changes. Compositionists and librarians' shared interests in supporting such curricular change is particularly evident in the parallels between the recently adopted ACRL Framework for Information Literacy for Higher Education and the WPA Framework for Success in Postsecondary Writing (adopted in 2011) and in the growing conversations among our professions about these documents' intersections. Often the pedagogical approaches described in the frameworks mirror the implications of the studies on writing and information literacy that have been explored in this chapter. The frameworks demonstrate ways in which both writing and information literacy can, in Charles Bazerman and David Russell's words, be experienced as "alive" and as a vital "part of human activity." 103 In the following chapter I explore these frameworks' connections and their pedagogical significance in greater detail, as I consider these documents' implications for our individual and our collaborative teaching and for building cross-professional dialogue and partnership.

Chapter 3

The Frameworks for Writing and Information Literacy: Catalysts for Further Conversation

As was explored in Chapters 1 and 2, the vital connections between writing and information literacy are evident in pedagogy centered on critical inquiry and problem-posing. Such instruction foregrounds writing and information practices as rhetorically situated activities with powerful social and communicative functions. Such an approach to writing and information literacy instruction is reflected in two key documents that in recent years have informed the work of compositionists and instruction librarians, respectively: the Council of Writing Program Administrators (WPA) Framework for Success in Postsecondary Writing (adopted in 2011) and the Association of College & Research Libraries (ACRL) Framework for Information Literacy for Higher Education (filed in 2015 and adopted in 2016). These texts (hereafter the WPA Framework and ACRL Framework) demonstrate a growing convergence between the pedagogical approaches of librarians and writing instructors, and have recently become catalysts for expanded dialogue between librarians and compositionists.

Both frameworks present alternatives to standards-based instruction as they emphasize the larger picture of why composing and information practices matter to students in their academic and personal lives. The WPA and ACRL frameworks are based on similar understandings of writing and information literacy as involving context-dependent practices that are relevant to a broad range of rhetorical situations and purposes. The frameworks also draw on pedagogical approaches that have been found to foster transfer, such as the foregrounding of interconnected

103. Bazerman and Russell, Writing selves, Writing Societies, 1.