Constructing Research(ers): Faculty and Undergraduates as Researching Subjects

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In a 2014 *Journal of Technical Writing and Communication* article, Derek Ross discusses the lack of clear conceptualization of "research" in technical writing courses and texts.[1] Citing additional work by Spilka,[2] Ford, Bracken, and Wilson,[3] and Campbell,[4] Ross argues that "attention to research instruction in undergraduate programs is limited. [However,] since the jobs students are likely to acquire outside of the university will require research skills, ... the focused teaching of the language of research and research methods is vital."[5] He additionally argues that more attention to research instruction is needed in order to address "incoherence and lack of focus"[6] in how students are encouraged to approach and define research.

Looking more broadly, Karen Kaiser Lee identifies a common problem with student research writing: "While it would be difficult to find an academic who did not value research-writing skills or who did not think students need such skills, teachers across the undergraduate experience remain frustrated by student papers written in response to the typical research assignment."[7] Lee additionally points out that students' understanding of research-writing assignments are often at odds with the purposes and tasks that instructors have for these assignments.

In short, these authors suggest the undergraduate researched-writing assignment is fraught with problems: poor definitions of research, lack of focus about appropriate sources and approaches for handling research, mismatch between students and instructors about goals of research, etc. Thus, in response to this perceived state of affairs, we have been working over the past several years at our home institution to investigate faculty representations of "research" within undergraduate curricula. We recently published the first stage of our work,[8] and in this paper, we briefly discuss those initial results and discuss emerging analysis of the second stage of our project. We conclude this paper with some brief implications.

Previous Results

In the first stage of our study,[9] we analyzed a set of syllabi and other course materials for upper-level communication-intensive courses. Specifically, we analyzed those course documents around a set of rough binaries suggested by concepts in Lee's chapter as well as our exploratory analysis of the course materials. As a related part of our analysis, we evaluated the ACRL *Framework for Information Literacy for Higher Education*[10] and the WPA *Framework for Success in Postsecondary Writing*[11] to identify points of overlap between these framework, expressed in these seven values:

1. Skills are subordinated to larger discourse/disciplinary practices.
2. Different disciplines enact writing and research in different ways.
3. Researching and writing are continually developing abilities.
4. Researching and writing are iterative, problem-based processes.

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5. Researching and writing are driven by rhetorical purposes and contexts.
6. Researching and writing are multimodal activities.
7. Successful writing and researching involves metaliteracies/metacognition.[12]

In short, we believe this analysis shows that both the ACRL Framework and the WPA Framework value research instruction that embeds skills within larger disciplinary frames, sees information-gathering and -communicating along a continuum of expertise, acknowledges the importance of process, places research tasks in contexts of audience, purpose, and modality, and engages learners in metacognition.

The coding scheme we developed allowed us to analyze course materials in terms of three of these overlapping values: (1) whether faculty embedded research within disciplinary tasks ("discourse" vs. "skills" focus); (2) what they suggested to students about the research process ("iterative" vs. "linear" process): and (3) what types of rhetorical purposes drove the research tasks ("content" vs "issue" orientation and "telling" vs. "transforming" purpose).[13] We hoped this way of coding and analyzing the data would allow librarians, writing and communication programs, teaching and learning centers, and disciplinary faculty to develop and support curricula more in line with ACRL and WPA frameworks. Table 1 shows the results of the first stage of our research.

TABLE 1[14]
Course-by-Course Analysis of Focus, Purpose, Orientation, and Process

	Purpose: "Telling"	**Purpose: "Transforming"**
Focus: "Discourse"	Chemistry*, Communication, Geography, Life Sciences, Life Sciences, Theatre, Education	Economics, Art, Art*, Communication*, Econ*, Engineering, English/Writing, English/Writing, Family/Consumer Science*, History*, Political Science*, Languages, Life Sciences*, Health Sciences*, Political Science, Political Science, Religion*, Agriculture, Sociology*, Health Sciences, Education, Education, Education*, Energy Resources
Focus: "Skills"	**Accounting**, **Agriculture**, Agriculture, Anthropology, Geology, Social Work, Theatre, Theatre, Zoology	Economics, Agriculture, Political Science, **Sociology**

1. Asterisks indicate courses that included an iterative research component.
2. Boldface indicates courses with a telling + issue (column 1) or transforming + content (column 2) purpose and orientation.

Of the 45 courses we analyzed, this table shows that 24 (i.e., the top-right quadrant) had a *discourse* focus combined with a *transforming* purpose and an *issue* orientation. Of those 24, the 10 asterisked courses also suggested an *iterative* approach to research. Thus, 10 of the 45 courses (22%) represented research in a way that aligned with the values represented in the ACRL and WPA frameworks. Given that this analysis was based on course syllabi and limited course materials, without any additional information about how these materials were supplemented through class instruction or other assignment guidelines, we found these results to be relatively heartening. However, the follow-up interviews presented in this paper reflect our efforts to gain a deeper understanding of faculty constructions of undergraduate research.

Methods

We interviewed five instructors (all of whom contributed material from upper-level communication courses for analysis during the first stage of our project). Participants are faculty at a mid-sized, public land-grant research

university in the Mountain West. All gave additional consent for these follow-up interviews. Each interview took place in the participant's office. Interviews lasted 40 to 60 minutes, and we audiotaped the sessions. Interviews were semi-structured; research questions that drove this stage of the study were "What does it mean to be a researcher?" and "How do you represent research to upper-level undergraduates?" We encouraged participants to speak about their perceptions of undergraduate research broadly (rather than only in relationship to the course for which they had provided materials for the first stage of analysis).

Participants

We intentionally selected participants from across arts/humanities, natural sciences, and social sciences. Three of those participants had course materials that we had previously coded as being aligned with ACRL and WPA frameworks; two of them had courses which were partially aligned with the values of those frameworks. All are represented here with pseudonyms.

"Candace" is an associate professor in the Department of Art. She is an art historian, and her research field is primarily Western photography. She teaches a variety of art history courses, including seminar courses in her research area. For her, the goal of her research is to uncover photographers' impact on how we understand ourselves and our culture in the West.

"Olivia" is an associate lecturer with a masters in molecular biology. Additionally she is a coach for a university club sport and has completed coursework towards an Ed.D. in adult education and instructional technology. She teaches courses and supervises labs in microbiology, chemistry, and biochemistry, and her research focuses on scholarship of teaching and learning. For Olivia, research is driven by questions of significance, and she seeks to bridge the gap between basic ("benchtop") and applied science.

"Susan" is an associate professor in the theater and dance department. Her dance science research focuses on biomechanics, kinesiology, and relationships of art and science in teaching dancers. She teaches dance history and dance science courses, including a required communication-intensive course for all dance majors. She sees a close relationship of research and teaching, and sees research as a way to "keep learning" as well as to "discover the other layers" of dance.

"Jessica" is an assistant professor in sociology. She is a political sociologist with research in development, globalization, and health, as well as research on American political culture. At the undergraduate level, she teaches introductory sociology as well as a communication-intensive course in political sociology/international development. For Jessica, research is a means to primary "knowledge production."

"Robert" is an associate professor in sociology. His research currently focuses on family relationships, including cohabitation, marriage, and wealth inequality. He teaches the undergraduate methods course for sociology. Robert sees the goal of sociological research as bringing understanding about cultural trends and finding "patterns to explain phenomena we see everyday."

Results: Emerging and Overlapping Themes

Because we felt that our earlier coding approach helped reveal valuable distinctions among course materials, we have chosen to organize much of our results section around those same coding categories. However, we additionally discuss results related to participants' *goals* for research as well as the differences between the ways they characterize their own research and the research they assign to students. Direct quotes from interviews are used when possible.

Goals of Undergraduate Research

All participants articulated or implied a goal for undergraduate research, but at different degrees of specific-

ity. For example, Robert wants sociology students to gain experience with a formalized process of inquiry that can provide "portable skills" that can be applied to any job or that can prepare them for the research process in graduate study, while his colleague Jessica's goal is for students to develop a sociological perspective (separate from the *doing* of the discipline).

Others talked about wanting to help students think more deeply or differently. Candace focused on helping students "have full thoughts" and to develop analytical and critical thinking skills through writing, helping them overcome "bullet-point thinking" in "our era of nuggets." Susan is even more specific in her goal for research to help students balance thinking and doing, make them aware of the link between art and science, develop language to talk about a field that is mostly communicated non-verbally, and to inform students' own performance and choreography. Robert also suggests that deeper thinking is a goal for his course; he pushes students towards "excellence" through "enjoyable struggle."

Goals for student research also shape the ways instructors design assignments. Olivia has pursued applied research projects because she believes they make it easier for students to access the social significance that is often lost in basic science. She specifically hopes to help students write effective grant proposals as well as turn client problems into projects that can be addressed by microbiology.

Purpose: Telling vs. Transforming

All of the participants ask their students for something beyond "reporting," but the definition of "transforming" differs substantially from instructor to instructor.

For Candace, the purpose of research in her seminar course is to develop analytical skills that can help students think about art in different ways and help move them beyond personal response. She hopes to help students develop thinking, not merely re-present existing knowledge. She notes that one difference between her research and students' research is how much they can be expected to synthesize, so she restricts them to analyzing a single work of art rather than a larger corpus. Since students in her seminar include both art history and studio art majors who may go on to a variety of careers, she distinguishes the types of "application" that may be appropriate for each student. In her view, both critical interpretation and creative work count as forms of application (and transformation) of disciplinary research.

In her interview, Olivia mentioned that the National Science Foundation calls for science research that "thinks big," in terms of its connection to social impact. Though she feels that this purpose is often lost in much teaching and communication about science, she wants her capstone course to engage students in a direct consideration of how their science knowledge can be applied to community and environmental needs.

Susan sees the goal gaining perspectival understanding ("to look again" and to "discover other layers") as one purpose of her research; for teaching, she similarly seeks to give students theory, form, or language to push them towards new ideas about dance. For Susan, "'transformation" includes not just transformation of "content" towards new original ideas, but also transformations between language, thinking, and doing. She sees the need to help students make connections between science and art as frames for understanding and between verbal and non-verbal modes of communication. Thus, the fact that dance is often expressed in embodied, non-verbal ways means that multiple forms of transformation are happening through research.

For Robert, the purpose of his research prospectus assignment is to help students learn how to identify a new angle for research (even though students do not conduct primary research within the boundaries of the course). He seeks to guide students to understand how to explore existing areas of sociological research in new ways, which implies that he values their ability to create questions that can inform or shed light on a new area of interest (rather than merely restating previous research). Because the focus of research in his methods course is

on understanding context/background and developing new research questions, "transformation" is framed as a front-end process rather than as something that happens during analysis of the data. To some extent this focus contrasts with his description of his own research process, in which he notes that secondary modeling is the "super exciting" part of his work.

In her course, Jessica asks students to extend or counter the thesis presented in a book-length sociology text. She notes that this task involves synthesis, but she also thinks that the purpose of undergraduate "training" is "imbuing students with knowledge." Implicitly she suggests a type of continuum; though she's asking students to do something more than re-tell information, she also doesn't consider the type of synthetic research project she assigns at the upper undergraduate level to be the kind of research that counts as "knowledge production" (which she considers to be the real work of sociologists). In other words, for Jessica, a full research experience involves collection and analysis of primary source material, not merely the synthesis of secondary sources.

Process: Linear vs. Iterative

There were clear differences between the ways participants framed their own research processes and the processes they assign to or expect of their students. Robert implied an expert/novice framework when describing process. He described his own research process as "iterative," but characterized students' process as "linear." Later in the interview, he clarified that he actually sees both processes as "linear ... with some circles," but the undergraduate process stops far short of a "full" project because there is no data collection and analysis. Robert sees student choice as an important component of motivated research and explained that his job is to model the expert process by walking students through a "formalized" version of his research approach. He uses feedback to prompt the kind of self-criticism that would be natural or automatic for an expert. Because Robert views students as having little existing experience to norm against, he feels they are more likely to be intimidated when the process "gets away from them."

Similarly, Jessica characterizes her own process as "messy boots." She acknowledges that she struggles to "frame" her own research when she writes for publication. She also acknowledges that she doesn't like to edit her own work, and feels that publication pressures for untenured faculty may promote rushed research and/or inflated claims. For Jessica, graduate study serves as the site for students' initial encounter with real "production" of sociological knowledge. Jessica provides a clear, scaffolded (linear) structure for the secondary-source-based writing project she assigns; she sees this scaffolding as a partial effort to even out "inequality in preparedness." She suggests texts to help students identify starting points for their projects, but also feels that some students don't have an initial interest to help them even begin to focus. Jessica reports that she has "bustling" office hours that allow her to provide one-on-one guidance as students work through topics and sources. She also feels that as an assistant professor, her need to publish pushes against her ability to ask more of students because that would take time away from her research.

For Candace, the key distinction between her own research and her students' is scope—she restricts student research to a single work of art rather than a larger corpus, and acknowledges the limitation of time on a fuller experience with the process. Her own process starts with curiosity, then prioritizing of ideas, a period of "messing around" in preliminary exploration, then more targeted planning for more in-depth study, and an iterative process involving back-and-forth between further planning, analysis, and writing. However, though she prefers to start her own research without a clear sense of focus and to be open to exploration, she requires students to start with an identified piece of work to study.

Susan's discussion of research for self and students is complicated by the fact that she teaches research in her dance history course but considers herself a researcher primarily in dance science ("I'm an appreciator of dance

history"). For her own work, she is motivated by questions that emerge from her teaching and performance. For biomechanics scholarship, she notes that she is guided by a more standard scientific method, and she recognizes that collaborative research projects involve negotiation of process. She says that she doesn't feel that she has a "set formula" for research but clarifies that she may have "more of a formula than I acknowledge." Like Jessica, she often suggests texts to students as starting points for inquiry—a "nudge": "once they find a trail, they'll follow it." She sees writing tasks as a way to pace research tasks: she moves students through picking a topic (finding "a trail"), then annotations, initial drafting, discussion to clarify theoretical connections, peer review, and a final draft. Unlike research assignments described by other interviewees, her researched-writing project takes place relatively early in the semester. Even though the final project is a written text, for her the process extends beyond writing (i.e., into thinking as well as embodiment).

Issue of Time

All but one of the participants mentioned the issue of time as a constraint in their approaches to undergraduate researched writing. For some, the time constraint primarily affects the ways they help students begin the research process. For example, Jessica sees a connection between time and interest; she suggests that students may struggle to initially identify a "real want" for their research, which in turn diminishes their investment in the project. She also feels she'd be more likely to teach primary research if she had a full year rather than just a semester. She imposes a scaffold on the research process to help students manage their time, even while she recognizes this scaffolding feels at times "paternalistic." Similarly, Candace feels that students don't have time to get into deep archival research—especially exploratory archival work—which she addresses by limiting student research to a single-piece focus. Interestingly, she identifies curiosity-driven exploration as a central component of her own process, yet she intentionally cuts this stage from the projects she assigns.

For Susan, time limitations affect the level of theoretical awareness that she can expect of students, and she also thinks that the semester pacing doesn't leave "time to do and think through." For Robert, the decision to end the methods course with a proposal rather than a complete project is also based on time constraints; he feels that students would need a 2- or 3-course sequence, or a group project, to fully work through the complexities of collecting, analyzing, and writing up the data. He acknowledges that time constraints push him to assign a research process that is more linear than he would prefer.

Focus: Skills vs. Discourse

All participants' comments more focused more on teaching discourse practices than on general research skills. For example, Candace teaches archival work, background research, and engagement with re-photography as method. She wants both studio art and art history students to extend their language to talk about art, but she also adapts her goals for students as researchers based on their own individual goals and needs. She distinguishes between textual, formal, and conceptual analyses as disciplinary ways of thinking/investigating.

Olivia acknowledges the importance of developing students' skill with "technical aspects" and "nuts and bolts" of research, but at the same time she wants them to apply microbiology concepts to meaningful, real-world problems. She strongly resists decontextualized science-for-science's-sake and encourages students to understand the assumptions and limitations of the scientific method and norms of science. She also recognizes that this approach to teaching/learning runs counter to her experience as a science major.

Susan sees research as a way to build students' language around their field of study, and her larger goal is for them to think about how that language can help them locate themselves in the context of dance history. For one assignment, she is starting to push students to use dance theory or technique as a way to structure their research

writing, and for other projects she notes that she has been inspired by calls for proposals from dance journals and conferences. She also has the sense that "we haven't always given students tools" (including interpreting video, navigating secondary sources, and building theoretical language) to be successful in managing and organizing their research work.

Robert is more articulate about discreet components of research than other interviewees; these could be viewed as "skills"-focused, but he connects them to larger disciplinary conventions. For example, he sees himself as facilitating the research process (e.g., modeling kinds of questions, providing directive feedback) in a way that will help students develop the internal voice of a veteran researcher. At the same time, he also thinks of the research tasks as building "portable" skills that may transfer indirectly across a variety of careers or graduate programs; for example, he sees the research prospectus (a key assignment in the methods class) as a valuable experience/genre for developing students' general/transferable writing and thinking abilities.

Jessica sees the goal of the undergraduate experience as developing "sociological imagination"; though she believes that it's possible to develop a sociological perspective without doing primary research, she doesn't believe that it's possible to "be" a sociologist without that experience. For her, writing based on synthesis of secondary sources is not empirical work, so it is not actual research. In some ways, then, her perspective means that the undergraduate experience is about learning to think like a sociologist (i.e., a discourse-based goal), while the graduate experience is about learning to *do* the work of sociology through "handling your own data."

Orientation (Content vs Issue)

For all of these instructors, there seemed to be a larger concern about gaps in skills (e.g., thinking, methodological approaches) than in "content" knowledge. All five participants indicated that they saw one of their roles as pointing students to initial texts, implying that these instructors see themselves as having disciplinary knowledge they can use to direct students' efforts. These texts serve to orient students to both disciplinary "content" and "issues"; as in Jessica's case, students are asked to develop a thesis to "extend" or "counter" the view of the initial text, suggesting a focus on understanding the issues and claims of the text. For Olivia, one goal was very explicitly to move students beyond an objectivist view of science to a consideration about how their content knowledge can be applied to real-world social problems.

Implications and Conclusion

As a result of our earlier analysis of course materials, we offered five suggestions that we believed could help improve instruction and support for undergraduate researched writing. Specifically, we felt our analysis suggested a need for increased faculty metaliteracy about research to help build awareness of field-specific expectations; increased programmatic coherence; stronger course-level justification for research tasks; clearer rhetorical contexts for students' researched writing; and more coordinated efforts among classroom teachers, librarians, and other support services. This round of follow-up interviews largely reinforces our earlier implications, and it also helps us complicate and extend ideas about how faculty might better integrate research and researched-writing in their courses. These interviews point towards the following additions and clarifications to our earlier suggestions.

Connections Between Research, Writing, and Doing

First, in talking about their courses and instruction, participants seemed to have a strong sense of their purposes for undergraduate research—but not always as strong a sense of how research (and researched writing) *tasks* move students closer to those purposes. For all participants, it seemed that "languaging" (to use Susan's term)

was an expected outcome of research; in other words, the participants shared a view that research becomes meaningful through an effort to *linguistically* express the result of research. This outcome suggests that research and researched writing have a strong link, and it may thus be valuable to engage faculty in discussions to draw out this link more explicitly. More specifically, the distinction between "writing to learn" and "writing to communicate"[15] may be a helpful way to facilitate discussion about purposes and genres for researched writing. For example, while some of our participants privileged writing-to-learn assignments that promoted deeper engagement with disciplinary ideas and issues (i.e., primarily "writing to learn" activity expressed through a classroom genre), others developed assignments that asked students to practice disciplinary genres that existed beyond the classroom and for potential audiences beyond merely "teacher as examiner."[16]

Carter's framework of metagenres provides another way to help faculty unpack implicit or underlying relationships between research, writing, and disciplinary doing. The notion of metagenres, according to Carter, connects a discipline's declarative knowledge ("content") to forms of writing that reveal the procedural knowledge that characterizes the "doing" of the discipline; Carter argues, "By highlighting generic patterns of knowing, doing, and writing both within and across disciplines, metagenres underline the critical role that writing can play in helping students participate fully in their disciplines."[17] Since research is a component of disciplinary "doing" that becomes embedded in disciplinary writing, his identification of different metagenres can provide another way for writing programs as well as librarians to help faculty define the values that guide their discipline's definition(s) and use(s) of research. We notice in these interviews that participants have a variety of unexamined or implicit assumptions about relationships between writing, knowing, and doing; encouraging faculty to more fully articulate their assumptions may help undergraduate curricula more fully draw students into disciplinary participation.

Time Constraints

Second, time constraints seemed to be a key barrier in efforts to collaborate—both with external support services as well as with other faculty within participants' own programs. Additionally, time constraints affected the process that faculty created for their course research projects. Participants indicated that they would be likely to teach research and researched writing differently if the curriculum had a multi-course sequence, for example, or they indicated that the semester-length constraint worked against exploration and iterative possibilities for the research process. At least for the pre-tenure participant, publication pressures also affected faculty willingness to invest additional time in designing a more extensive, authentic research experience; more broadly, this perspective suggests that lack of departmental coherence in outcomes for undergraduate research may be the result, at least partially, of faculty pressure to maintain their own research and publication agendas. Though some participants saw a direct connection between their research and their teaching of research, our sense is that these connections are the results of individual decisions, rather than coherent departmental planning. Overcoming the perception of limited time for developing good research projects will be hard for librarians and writing programs, especially if collaborative planning seems to require even more faculty time. However, this trend suggests that collaboration at the programmatic level, rather than merely at the course level, may need to become a primary goal of support efforts.

Process Emphases

Third, participants indicated they spent more time and effort mentoring students through the early stages of research—particularly identifying a topic and developing a good thesis/research question—than they spent on information gathering or evaluation. These differences in emphasis suggest that librarians may want to consider

the kinds of support students are already getting from their classroom faculty and the stages of the research project at which librarians can most influence student success, whether directly through instruction or consultation, or from tutorials or other learning objects. Though participants indicated the kinds of source restrictions they placed on student research, it was not clear from our interviews that they engaged students in conversation about *why* those restrictions were appropriate to the discipline or project. By contrast, participants spent relatively more time explaining their (discipline-specific) processes for helping students narrow to an initial issue, text, research question, and/or thesis. The perception of searching and finding as "nuts and bolts" or "technical skills" may indicate that faculty see these parts of research as generalized or instrumental skills while they see earlier stages as disciplinary tasks that require greater discipline-specific intervention. However, critical literacy scholars such as Brian Street,[18] James Gee,[19] and others argue that literacy is always ideological; thus, librarians may want to help faculty and students understand the disciplinary decision-making that is part of searching, finding, and evaluating their sources.

Faculty Research Projects vs. Student Research Assignments

Finally, participants expressed a range of perspectives on the relationship between their own research work and that of their undergraduate students. Some saw strong connections, while others saw much less overlap between their own work and their research assignments. Additionally, some participants primarily talked about how research informed their teaching while others discussed how teaching impacted their own research; in other words, this set of interviews suggests there are multiple possible ways for faculty to think about connections between research and teaching about research. These connections are especially important in relationship to Lee's claim that researched writing assignments have become disconnected from "real" research processes;[20] if we hope to engage undergraduate students in meaningful research, then librarians, writing programs, and faculty all need to more closely relate research assignments to authentic disciplinary research experiences.

In sum, this series of interviews—a pilot phase for the next major component of this project—helps add some precision and complexity to our earlier document analysis. More specifically, in our current roles as research librarian and writing center director, these results help us consider how we can lead our respective units more effectively as we engage programs and instructors in designing better researched-writing projects. Clearly some of the factors revealed here are large, structural issues that will require ongoing, long-term collaborations. But the interviews also reveal opportunities for smaller-scale, immediate adjustments to the purposes, processes, and relationships that underlie disciplinary researching and writing.

Notes

1. Ross, "Defining 'Research': Undergraduate Perceptions of Research in a Technical Communication Classroom."
2. Spilka, "Practitioner Research Instruction."
3. Ford, Bracken & Wilson, "The Two-Semester Thesis Model: Emphasizing Research in Undergraduate Technical Communication Curricula."
4. Campbell, "Research Methods Course Work for Students Specializing in Business and Technical Communication."
5. Ross, 63.
6. ibid.
7. Lee, "The Research Paper Project in the Undergraduate Writing Course," 41.
8. Fisher & Calkins, "Interpreting the Frameworks: Faculty Constructions of Research and the Researching Student," 23–24.
9. Ibid.
10. ACRL, *Framework.*
11. WPA, *Framework.*
12. Fisher and Calkins, 23–24.
13. Note: Our 2016 chapter explains in greater detail how we defined these codes.
14. Fisher and Calkins, 30.

15. Kiefer et al., "A Fuller Definition of Writing to Learn."
16. Melzer, "Writing Assignments Across the Curriculum: A National Study of College Writing"; Appleby and Langer, *Contexts for Learning to Write: Studies of Secondary School Instruction*; Britton, "The Development of Writing Abilities (11–18).
17. Carter, "Ways of Knowing, Doing, and Writing in the Disciplines," 403.
18. Street, *Literacy in Theory and Practice*.
19. Gee, *Social Linguistics and Literacies: Ideology in Discourses.*
20. Lee, 45–46.

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