INTRODUCTION

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When graduating seniors fling their mortarboards into the air at college commencements, assumptions about these students and their capabilities also hover above them. One assumption is that these graduates are better writers than their first-year counterparts, that earning an undergraduate degree improves a student’s writing. But this assumption prompts—or it should prompt—a number of questions: What does “better writers” mean? How do we know that the writing is better? Do all student writers become better in the same ways? What about the differences that students bring to college with them? What does writing development across the undergraduate experience look like? These questions and others like them show that we don’t really know enough about the development of student writers.

Describing the ways students grow as writers poses challenges because “writing development” carries multiple meanings. Researchers have taken up a wide variety of definitions of writing development in the past fifty years, and they have employed various methods for investigating it. For example, one meaning focuses on surface features such as spelling, punctuation, and issues of usage, and some researchers discussed below have used error counts as a measure of writing development. In contrast, other researchers have posited disciplinary expertise as central to writing development and investigated how students take up (or don’t) genres specific to a given field of study. A third way of defining writing development has emerged from longitudinal studies in which researchers have traced the varied and irregular paths students take as they move smoothly through one writing challenge and stumble on another. Methods and sites of investigation have, of course, varied with shifting definitions: error-seeking examination of student texts, comparison of student writing with that of disciplinary experts, and consideration of shifting syntactic and semantic patterns are among the ways studies of writing development have been approached.

For some researchers, the meaning of writing development is attached more
to the writers themselves than to the texts they produce. Defining writing development in this way has meant considering what students do as writers—their responses to pedagogies of writing, the choices they make about forms and processes of composing, and the ways they employ various technologies, as well as the intersections between their academic and personal lives. It has also meant engaging students in discussions about their perceptions of writing in general, their own writing, and themselves as writers; about their hopes and goals; and about their emerging identities. Surveys, focus groups, and interviews as well as close reading of student texts have been employed to inform this view of writing development.

With both instructors and researchers in mind, this book avoids a single definition of writing development, because such a definition could lead instructors to expect students to follow a single path in their development as writers. It could also lead to a narrowing of definitions of and strategies for looking at writing development. Considering writing development from many angles led us to use surveys, statistical analysis, interviews, grounded theory coding, case studies, automated text analysis, and careful reading of a rich collection of student writing and digital productions collected across the undergraduate years. This introduction begins by asking what we can learn from existing research on the development of student writers, enumerating the various methods used and the meanings of writing development that have emerged, and suggesting some of the ways this study has complicated and expanded on these meanings. Then it turns to questions about the study reported here, the analysis of the materials collected, and the rationale for the book’s organization.

**Perspectives on Writing Development**

This study aimed to avoid a single meaning of writing development, not only because existing research has articulated multiple meanings, but because of the inherent danger of seeing writing in monolithic terms. As King Beach notes, a singular perspective on development can become a yardstick for progress, and “at worst it will create a measuring stick for developmental progress derived from those who hold dominant and controlling interests in that society and will silence, coerce, and stigmatize others” (126). We did not want to hold ourselves or our student participants to a single standard that would not value the diversity of available methods and of students themselves. Rather, we began by assuming that writerly development can be seen in:
Inevitably, our view of writing development was shaped by previous studies, so it is worth recounting what we drew from our predecessors. A half-century ago, studies of writing development used cross-sectional approaches to determine the extent to which students increasingly excised errors—in punctuation and mechanics, spelling, paragraphs, material, words, structure, and sentences—as they moved through college. Albert Kitzhaber, for example, reported in his 1963 *Themes, Theories, and Therapies*—his cross-sectional analysis of freshman, sophomore, and senior writing at Dartmouth—that seniors made more errors than beginning first-years. Reflecting on this finding, Kitzhaber observed, “Backsliding after freshman English has been completed appears to be universal in American colleges and universities. . . . No one has so far discovered a way to keep students writing well in all their courses, nor does it seem at all likely that anyone will” (119). Dean Whitla’s 1981 Harvard study of the “value added” by a college education framed writing development in terms similar to Kitzhaber’s, coding student writing in a cross-sectional study for “spelling, grammar and organizational flaws” as well as “quality of the argument and counterarguments” (8). Whitla came to a somewhat more optimistic conclusion than Kitzhaber, noting that seniors in the humanities and social sciences wrote “with a finer pen” and “composed more forceful and logical essays, made fewer syntactical mistakes, and even spelled better than freshmen” (6). Although we recognize that “error,” with all its contested meanings, plays a significant role in automated evaluations of student writing as well as in public conceptions of what constitutes “good writing,” we resisted this conceptualization of writing development, because it is a measuring stick that could stigmatize many of our students and because it offers such a limited view of writing. However, as chapters by Laura Aull and Zak Lancaster show, framing attention to features of language in a larger context can reveal a great deal about students’ writing development.

Whitla’s observation that students in the humanities and social sciences wrote
better than those in other areas gestured toward a relationship between discipline and writing development. Kitzhaber also pointed at this relationship in his survey report that 40 percent of faculty in the natural sciences said they required no extended prose, while faculty in the humanities and social sciences indicated that they required regular essays and papers. These early suggestions that writing development be considered in relation to disciplines connected, in our thinking, to Anne Beaufort’s work on the role of subject matter knowledge and discourse communities in writing development, reminding us that linkages between disciplinary expertise and writing offer another perspective on how student writers grow. Yet as Ryan McCarty’s chapter shows, students in our study resisted conflating disciplinary expertise and writing development as they pursued their own projects.

Richard Haswell’s 1991 study included some attention to error but took a broader and more linguistically informed approach to language conventions. Haswell considered traditional features pertaining to error, including spelling and comma splices as well as more complex categories such as final free modifiers and clause length. His cross-sectional study looked at multiple features, such as students’ increased fluency and flow, use of more technical (discipline-based) vocabulary, and better shaping of introductions and conclusions to describe writing development. In addition to offering a more complex and varied model of writing development, Haswell sounded a theme that echoed through much subsequent writing development literature, noting that “all along regressive sequences take place: final free modification grows along with comma splicing; bound modification increases along with embedding and reference errors; students quicken their pace and raise their rate of production mistakes; [they] attempt more midstream improvisation and write more awkwardly, focus more on ideas and less on specificity” (298). A number of scholars who investigated writing development in the years after Haswell’s *Gaining Ground in College Writing* embraced this recognition of the unevenness of writing development, and it was prominent in our thinking about the great variety of paths our students took as they moved across writing contexts.

Although they define writing development somewhat differently, researchers such as Lucille McCarthy, Marilyn Sternglass, Anne Beaufort, Nancy Sommers, Laura Saltz, and Lee Ann Carroll echo Haswell’s claim about “regressive sequences.” Each resists describing students’ writing development in linear terms, instead noting its unevenness, its irregular movements. McCarthy’s longitudinal case study of one college writer, as he moves across multiple courses in three undergraduate years, leads her to conclude that writing development is so context-dependent that a student can move forward in one course or one discipline and not in another, which speaks to the issue of uneven development that was so prominent among
students in our study. Sommers and Saltz explain that individual students in their longitudinal study did not develop in linear fashion, but progressed in irregular steps, backward and forward, a phenomenon common in our study as well. Sternglass’s longitudinal case studies of four student writers portray development as a movement, however uneven, from “fact-gathering research to interpretation of material learned . . . from reliance on authoritative sources to analysis . . . [as students] adapt to the demands of specific tasks and specific instructors” (289). Carroll’s qualitative portrayal of development, in her longitudinal study of twenty undergraduates, shows students who write not necessarily better but differently, “producing new, more complicated texts, addressing challenging topics with greater depth and complexity” (22). She also points to students’ increased metacognitive capacities as a marker of development, describing them as those who can “assess their own proficiency and target areas where they are still struggling” (126).

Beaufort’s longitudinal case study of one student points to the unevenness of development by creating a five-part model of cognitive processes that characterize writerly development in a given discipline. She finds that these processes, which include the use of rhetorical knowledge, writing processes, subject matter knowledge, genre knowledge, and discourse community knowledge, develop asymmetrically, with genre and rhetorical knowledge showing the least growth in the student she studies. Studies such as these reinforce the argument for multiple perspectives on writing development by showing the mix of cognitive, social, and rhetorical capacities that student writers call on as they move through a variety of contexts. Such studies also demonstrate the value of employing multiple methods for deepening understandings of writerly development, a value we share and enact by taking many approaches to our data.

Two categories of subject matter knowledge and discourse community knowledge are integral to Beaufort’s assertions about the relationship between writing development and disciplinary expertise. In Beaufort’s telling, disciplinary knowledge cannot be separated from other dimensions of writing development, and she laments that “the influence of subject matter knowledge and critical thinking skills on written products” (143) is often neglected in research on writing studies. Although Beaufort’s may be the most overt claim for this link between writing and disciplines, other researchers make related assertions. Carroll, for example, points to a relationship between writing development and discipline when she says that writing differently results from encountering new environments and taking on new roles, “not just getting better at the same task” (28). She amplifies this point by noting that development can be understood as students’ “growing ability over four years to describe the methods and conventions of their disciplines” (126).
is not just that faculty in some disciplines provide more opportunities for writing development—although they do—but that the concept of writing development itself becomes imbricated in disciplinary knowledge or expertise. Yet, as Jonathan Monroe claims, even discipline-focused programs involve both “multidisciplinary decentering and discipline-specific explication” (5). The chapter by Lizzie Hutton and Gail Gibson reinforces this point by demonstrating how students also resist disciplinary genres in favor of their own constructions.

The model of writing development offered by Chris Thaiss and Terry Myers Zawacki’s qualitative research—which included interviews, surveys, focus groups, assessment data, and student writing samples—is grounded in this linkage between writing development and disciplinary expertise. Their three-stage model begins with students intuitions disciplinary “rules” based on a few courses in the field. It continues in the second stage with additional course work where students encounter different “rules” and move away from a perception of consistency, attributing difference to instructor subjectivity rather than disciplinary conventions. In the third stage, which not all students reach, writers develop a nuanced understanding of the multiple ways of writing in a discipline and their place within it. Thaiss and Zawacki acknowledge that their model—of progression from authority-based knowledge, to a more relativistic stance, and finally to adapting previous practices to the diverse contexts of discipline-based writing—owes a debt to William Perry’s model of ethical and intellectual development, a model that posits movement from dualism to relativism to commitment, but theirs is a discipline-focused adaptation. It is true, Thaiss and Zawacki note, that some students and faculty value writing “outside” disciplines, but the major thrust of their work, like the three stages they describe, indicates that writing development means growing capacity within a disciplinary framework. Although our study confirms that disciplines help shape writing development, it also shows how students complicate and subvert this connection, “reshaping the rhetorics of their disciplines,” as Thaiss and Zawacki put it, “to meet their own individual needs and goals” (118). Furthermore, very few students in our study had just one major, so the idea of discipline-focused writing lay outside their experience.

Looking beyond texts and formal education, another set of meanings attached to writing development focuses on writers and their personal experiences. Elizabeth Chissери-Strateser opened this line of thought with her 1991 ethnographic study of two students, in which she found that students’ development as writers can be impeded by the establishment of firm boundaries between their personal and academic lives. Herrington and Curtis’s 2000 longitudinal study of four students via interviews, classroom observation, and writing samples portrayed writing as a self-
constituting and relational activity in which social and psychological features of growth intersect with more academic ones. In this view of writing development, writers themselves cultivate a greater “sense of personal assurance and of purpose in communicating with readers” (357), and their writing becomes “more fully developed, more coherent, and more surely articulated” (357). For Herrington and Curtis, the self-development of students as individuals is inseparable from their development as writers. Sommers and Saltz take a related stance in their 2004 report on their qualitative study of first-year writers, claiming that “the story of freshman year is not one of dramatic changes on paper; it is the story of changes within the writers themselves” (144). They explain that “gaps between what a student knows about writing and what the student can actually do can be observed throughout all four years” as students encounter new genres, new disciplines, and new purposes for writing (144). Studies such as these call attention to a relationship between students’ identity formation and their writerly development, and we found this a productive relationship in our study. Anna Knutson’s chapter, for instance, shows how a student’s constructs of effective writing alongside her perception of her ability to measure up to these constructs shaped her self-efficacy. Naomi Silver makes a similar point in chapter 8 as she notes how students conflate their writing development with personal growth or identity formation.

Another perspective on the relationship between students’ personal and writerly development is offered by a 2015 large-scale statistical study by Paul Anderson, Robert Gonyea, Chris Anson, and Charles Paine. Using data produced by a collaboration between the Council of Writing Program Administrators and the National Study of Student Engagement (NSSE), these researchers found a high correlation between gains in students’ personal and social development—as measured by the Personal and Social Development Scale of the NSSE—and three constructs of effective writing assignments. That is, students who had experienced writing instruction that used interactive writing processes, meaning-making writing tasks, and clear writing expectations indicated that college helped them develop a code of personal values, increase their understanding of themselves and others, participate in and contribute to their communities, and develop a deepened sense of spirituality. These results, obtained via regression analysis, offered an empirical, albeit correlational, basis for our further thinking about the interrelationships between students’ personal development and their development as writers.

Jenn Fishman, Andrea Lunsford, Beth McGregor, and Mark Otuteye offer another way to approach the relationship between personal and writerly development. These authors consider two students who engage in writing performance or “live enactments of their own writing” through drama and spoken-word poetry
(226). Their extracurricular performances, which occur outside of classrooms, bring together body, rhetoric, and writing, and according to the students involved, such performances help to restore their flagging confidence in themselves as writers. Although students at Stanford express high confidence in their writing abilities when they arrive, that confidence diminishes during the first year. Experience with writing performances, however, contributes to a renewed sense of confidence, leading the authors to assert that “writing performances play a role in early college students’ development as writers” (226). The authors argue that performance produces change because it fosters “social and self-reflection” (232). One dimension of performance via writing occurs, as the authors note, in digital spaces, as students compose at the intersection of “bodies, screens and documents” (246). Here, a heightened sense of audience awareness, the capacity for the visual as well as the verbal, and the flexibility of the medium create especially generative spaces for developing writers. In addition to enhanced confidence, the students described here increased their rhetorical awareness as writers, perhaps another dimension of the linkage between personal and writerly development. In a related article, Lunsford, Fishman, and Liew offer another perspective on personal and writerly development by showing how students develop an identification with writing and “come to see themselves as writers with something worthwhile to say” (486). Ben Keating’s chapter explores and complicates this linkage as it delineates the role of peer feedback in writing development.

Recent studies suggest the special benefits that digital tools confer on developing writers. Crystal VanKooten, for example, found that video production in a first-year writing class gave students increased meta-awareness about composition, including the rhetorical dimensions of writing. She uses the term “rhetorical layering” to describe the “orienting, addressing multiple audiences and purposes and revising the parts and the whole” that student writers attribute to their experiences with video production (67, 2016a). Audience awareness is especially enhanced by the digital. As VanKooten explains, “This concept was the most prevalent across all students: all six talked about audiences for their work and made compositional choices that they linked to audience” (9, 2016b). Re-mediation, or transforming a written text into a different genre or medium, has likewise been shown to enhance the rhetorical awareness of student writers (Delagrange). Furthermore, as Naomi Silver’s chapter in this collection shows, student development occurs in the digital realm, often in different directions and at different rates than in alphabetic forms, and the disjunctions between these two offer another perspective on the evolution of student writers.

The recent focus on transfer within composition studies reflects another di-
mension of writing development because of its attention to the ways students do (or do not) carry knowledge, strategies, and procedures from one context to another. Rebecca Nowacek’s 2011 study of the rhetorical aspects of transfer serves as a reminder that writing development involves student agency. However, Elizabeth Wardle’s 2012 description of “creative repurposing for expansive learning” makes it clear that transfer, like the writing development of which it is a part, does not always occur in the same way for all students, since the contexts in which they learn do not always support the problem-solving and meta-reflective dispositions that nourish transfer. Our study likewise found that curriculum, and the larger context in which it exists, play a significant role in writing development, as Anne Gere’s chapter demonstrates. In turn, this reminded us anew that student writers follow a wide variety of (curricular) paths as they move through their undergraduate years.

Like transfer, threshold concepts recently emerged in composition studies, and the two share the assumption that students need to understand threshold concepts to engage in the metacognition necessary for transfer—and writing development. Developed by Myer and Land in 2003 as a framework for improving teaching and learning in economics by making the principal assumptions of the field visible, threshold concepts have been subsequently identified in many fields, including composition studies. Regardless of disciplinary markers, threshold concepts share common qualities: they are transformative in that they generate a shift in one’s view of a subject; they are often irreversible because they cannot easily be forgotten; they are integrative and demonstrate how phenomena are related; they proceed iteratively and recursively; and they tend to involve forms of troublesome or counterintuitive knowledge.

These qualities of threshold concepts can be unpacked by considering them in relation to writing. For instance, when a student comes to understand that sentence-level features such as the use of what linguists call hedges, or words that qualify claims, can shape the strength of arguments in an entire essay, that student has a new—and transformed—view of writing. In conceptual terms, students will understand that specific words such as perhaps, may, and possibly can contribute to the effect of a piece of writing. At the same time, students’ views of writing will be transformed ontologically because they will now see writing as an integration of sentence-level and whole-text features. Once students understand writing in these terms, it becomes difficult to think of sentence-level features as separate from the effect of the whole; the new way of seeing can become irreversible. This insight about the role of hedges can also enable students to see writing in more integrated terms, as they begin to recognize that features such as word choice and organizational structure relate to one another. Coming to such insights is not, however, a
direct or smooth process; it proceeds incrementally, often with frequent returns to more familiar ways of thinking. Furthermore, students often resist new perspectives, preferring to avoid knowledge that troubles what they already know about writing and about themselves as writers, as Emily Wilson and Justine Post’s chapter on student responses to feedback shows.

While this review doesn’t do full justice to the array of meanings assigned to the term “writing development” or to concepts such as transfer and threshold, it does suggest larger bodies of research and theory that shaped our thinking in this study. We were prepared to consider a wide variety of texts produced by students, and also their reflections on their own writing, their observations about their various learning experiences and themselves as writers, and the effects of multimedia on writers and writing. We knew that we would need to employ a wide range of methods to analyze the enormous amount of data we would collect and to consider writing development from many angles, both quantitative and qualitative. And we understood that it would be impossible to describe the journeys of each of the students in our study, but we wanted to represent as many dimensions of their journeys as possible, acknowledging the progressions, regressions, and variations from verbal to digital.

The Context of This Study

Because curriculum numbers among the forces that contribute to writing development, we begin a discussion of context by filling in the details of curricular experiences shared by all students. Before they begin classes, every matriculating incoming student completes a directed self-placement essay to help them decide which writing course to take (see Gere et al. 2013 for details). The one-semester course that satisfies the first-year writing requirement is offered by seven departments, and very few students are exempted, so the several versions of the course, which follow common guidelines, provide comparable experiences for nearly all matriculating students. Peer review is a standard part of the curriculum, and students are required to participate in workshop sessions in which they give and receive responses to writing. The goal of the course is to help students develop the capacity to produce evidence-based arguments.

In addition, all students are required to complete a second course, the Upper-Level Writing Requirement (ULWR). While originally conceived as an opportunity for students to learn to write in their majors, this course has evolved into one where students pursue other areas of interest, follow a favorite professor, or develop ad-
ditional skills (see Gere et al. 2015 for a detailed explanation). For some students, these two courses functioned as the only clear opportunities to develop as writers, while others ended up taking multiple ULWR courses. To provide additional opportunities to the former group of students and recognize the efforts of the latter group by offering credit toward a degree program, the Sweetland Center for Writing undertook the project of creating a minor in writing.

Launching this minor gave students from multiple disciplines an opportunity to extend their focus on writing, and it also set this study in motion. As we enrolled the first cohort of writing minors and recruited a number of them to participate in the study beginning in the fall of 2011, we also identified and recruited a group of nonminors who resembled them in terms of gender, academic achievement, and majors to see what we could learn about how the two groups developed as writers. After two years and four incoming cohorts (one each semester), 182 students had agreed to participate in our study, and by the end 169 remained, 60 minors (of whom 44 were women) and 109 nonminors (of whom 93 were women). Our 169 participants represented 47 different majors, an array spanning from American Culture and Anthropology to Sports Management, Statistics, and Women's Studies (see appendix 1 for a full list of the 47 majors). Eleven of the study participants were peer tutors in the Sweetland Peer Writing Center. There were also eleven multilingual students and seven transfer students in the study. This participant group was obviously limited in some ways. Women, for example, were overrepresented. However, the gendered pattern parallels enrollments in the humanities more generally. Among current English majors at the University of Michigan, for example, 70 percent are women. Another limitation of the study is that all participants indicated an interest in writing—by enrolling in the writing minor, by agreeing to participate in surveys and interviews about writing, or by sharing selections of their writing each year—which may mark them as atypical.

The fifteen-credit Sweetland Minor in Writing Program required students to take both Gateway and Capstone courses within Sweetland, two ULWR courses (rather than just the one required of all students), and one more course focused on argumentative writing, creative nonfiction writing, professional writing, writing and other arts, or digital media writing. Fulfilling these requirements meant taking a writing-focused course nearly every semester, and encountering a broad range of genres, modes, and media.

Learning goals for the minor indicated that students would:

• Produce complex and well-supported arguments that matter in academic and nonacademic contexts.
• Explore different strategies for organizing, revising, and proofreading writing of varying lengths and genres.
• Identify and implement rhetorical choices that meet the demands of specific genres, audiences, and rhetorical situations.
• Compose in a variety of modes, including a range of new media such as blogs, interactive maps, online magazines, etc.
• Identify the expectations that characterize writing in the major, and use this knowledge to write effectively in a range of genres in that discipline.
• Learn the language to describe writing processes, rhetorical choices, genre expectations, and disciplinary discourse to discuss writing-in-progress and writing development over time.
• Collaborate with other writers to improve writing-in-progress.

The two courses required by the minor, the Gateway and Capstone (see appendix 2), addressed these goals explicitly and at the same time gave students a good deal of latitude in their ways of accomplishing them. One significant feature of the program was the creation of an eportfolio in both the Gateway and Capstone courses, creating a kind of reflective bookending of each student’s writing experiences and growth. The major writing projects for the two courses also foregrounded student interests and commitments. Students were led, in the Gateway course, to reflect on the topic “Why I Write,” and in the Capstone course to look back at their college experiences in a “Writer’s Evolution” essay, accompanied by an annotated bibliography of their own writing. The Capstone course also required a special project of the student’s choice, and many participants took this as an opportunity to explore diverse genres and areas of interest. Though both projects required a guiding idea and evidence, no format or genre was required, which allowed students to write poems, narratives, and manifestos as well as more conventional essays.

Reflection was cultivated throughout the minor, beginning with the application, which asked students to describe themselves as writers. The two eportfolios in which students wrote contextual reflections about each artifact, reflective introductions to the eportfolio as a whole, and reflections on their drafting processes furthered students’ reflective capacities. It is also worth noting that courses and extracurricular writing experiences outside program requirements also fostered reflection, and many nonminors found the experience of selecting which pieces of writing to archive to be an experience of reflection.

Nonminors had no required writing courses beyond first-year composition and the ULWR course, both of which are required of all undergraduates. However, we found that many nonminors voluntarily took courses that required a great deal of
writing—philosophy and English, for example—or decided to write a thesis, coauthor an academic article, or contribute to a campus publication. The university’s Undergraduate Research Opportunity Program, which pairs undergraduates with faculty researchers, provided a gateway to writing for some students; an inspiring professor led others to focus on writing. For instance, Kris, a student profiled in Anne Gere’s chapter, describes how an English professor helped her, a math major, realize she was a writer. Additionally, the experience of participating in the study probably contributed to nonminors’ development as writers because they were required to archive selections of their writing each year and preface each selection with an explanation of the assignment. Simply looking at the growing archive of their work led some nonminors to think more deeply and systematically about their development as writers, as we discovered in student interviews.

Both nonminors and minors completed surveys (see appendix 3) during the sophomore year and again as they were graduating, and a subset of both groups took part in interviews (see appendix 4) as they entered the study and as they graduated. In addition to the information provided by surveys and interviews, we gathered institutionally provided demographic data for each participant and created an archive of their writing. For minors, this archive included the eportfolios, and for both groups it included a collection of writing produced across four years, beginning with the directed self-placement essay written by every matriculating student and extending to papers written at the end of senior year. This array of texts and other information enabled us to triangulate across multiple sources of evidence.

Overview of Analysis

This multiyear study involved 169 student writers, who produced 322 surveys, 131 interviews, 94 eportfolios, and 2,406 total pieces of writing. Given the large amount of data collected across five years, this was a highly collaborative project requiring many hands, and various configurations of us sat around the oak table in Anne Gere’s office week after week and year after year to plan and analyze. As noted, we began by recruiting participants from Sweetland’s new minor in writing in 2011, finding nonminor students with parallel institutional profiles to the minors who signed on, and developing survey questions and a protocol for entry and exit interviews. We designed the surveys to query a broad swath of students’ prior writing experiences as well as their current experiences and perceptions of themselves as writers. We developed entry-survey questions that asked about high school and first-year composition writing practices and proficiencies and exit-survey ques-
tions that focused on upper-level writing courses and students’ awareness of when they found themselves using strategies and skills they had learned in prior writing courses. Both surveys also incorporated the Experiences with Writing module from the National Survey of Student Engagement, as well as the full set of questions from the Daly-Miller Writing Apprehension Test. Our interview protocols, which appear in appendix 4, were designed to probe an equally robust range of writing practices and experiences. Recognizing that writing development begins long before college and extends well beyond it, we aimed to make our portraits of writers as full and extensive as possible.

During the first two years, we created naming conventions to identify each participant and links to all related quantitative and qualitative data. We built an online system for storing the ever-increasing collection of student texts, study responses, and institutional data, and endeavored to preserve everything included in the eportfolios using the Site Sucker application. All of this data was incorporated into the ever-growing project archive. As we began our analysis, the size and scope of the data required us to build a more manageable electronic archive of student interviews, survey responses, application materials, and writing samples. Ryan McCarty led the creation of the archive. Each student’s data was stored in individual folders, facilitating some of the more in-depth case studies offered in this collection. The archiving of student writing presented an especially daunting task as we became aware early on that we would be interested in tagging each piece with a range of identifiers. Each piece was labeled with a textual identifier, followed by codes for whether the student was a minor or nonminor; whether the text was written for a STEM, social science, humanities, or extracurricular context; and the student’s study number. We also designated each writing sample either “early” if it was written for a lower-division course or “late” if it was for an upper-division course. Although we did not explicitly ask them to do so, several students provided us with writing they did in high school. This material was labeled as “pre.” In the case of students who provided us with multiple drafts of particular texts, folders were created to house each iteration, numbered from earlier to later (sometimes after a bit of careful reading to determine which draft probably preceded or followed another.

The process of constructing this archive and naming each of the texts constituted one of our first broad analytical encounters with the data as a whole. Naming the text involved actually opening each file and reading headings, titles, and early paragraphs, as well as occasionally making inferences about what general area the paper was written for if student headings did not clearly specify a course. Researchers kept early notes about participants who had given us an especially rich collection of writing in a particular academic division, or conversely, if students provided
us with a range of writing from across disciplines. We also noted students who wrote on similar topics across their courses and those who provided texts that were particularly interesting in terms of genre or design.

Transcribing and coding interviews, analyzing interviews and responses to survey questions, and reading and rereading student writing filled the middle years of the study and continued through to the graduation of our final cohort in 2015.

Two central questions guided our study:

1. What can a longitudinal study of college student writers add to knowledge about writing development?
2. What comparisons can be drawn between nonminors and minors in writing?

We took multiple approaches in response to these questions. Our analysis of survey questions was largely statistical, comparing within-group responses from sophomore to senior year and comparing across groups to discern differences among and between minors and nonminors. We also compared groups across disciplinary areas; for instance, we considered STEM majors in relation to non-STEM majors. This form of analysis enabled us to discern trends within the entire group. For instance, after identifying survey items dealing with genre, we used factor analysis to determine correlations between students’ experience with specific genres (such as five-paragraph theme, personal essay, evidence-based argument, etc.) and their understanding of rhetorical principles. Statistical differences between entry and exit surveys showed us that seniors were less likely to seek advice about beginning a writing project than they had been as sophomores, which we interpreted as indicating that as a total group these students had developed more confidence in their own capacities as writers.

We used open coding to analyze the interviews that had been recorded and transcribed, and after multiple conflations and combinations, established codes that identified concepts frequently visible in students’ descriptions of their writing and of themselves as writers. We eventually settled on nineteen codes (see appendix 5), and the 11,156 excerpts identified by these codes provided the basis for further analysis as we attempted to understand relationships among students’ various perceptions. Not surprisingly, we found significant co-occurrence among codes; for example, codes for “peer review” and “audience awareness” co-occurred as students found that the responses of their classmates made them much more sensitive to the needs of their various audiences. Similarly, “writerly self-conception,” “kinds of writing,” and “writing development” co-occurred as students looked back
at the writing they had done in multiple contexts, considered how their writing had changed, and then assessed their strengths and weaknesses as writers. “Portfolio,” “writerly self-conception,” and “writing development” co-occurred as students' assessed how their two eportfolios had offered them insights into common themes and commitments that spanned their college writing. Such co-occurrences gave us deeper insight into the relationships students constructed for themselves as they developed understandings of key concepts in composition.

Analysis of student writing included both quantitative and qualitative approaches. Quantitative approaches included statistical analysis, primarily of student surveys, and automated text analysis, or corpus linguistic analysis to discern patterns in hundreds of texts written by all of the students in the study. For example, we compared students’ use of boosters or intensifying words in their first and senior years to see trends in language use across the entire group. Chapters by Laura Aull and Zak Lancaster show how this kind of analysis, especially when combined with rhetorical analysis, can yield valuable insights into the macro-level effects of sentence-level choices student writers make. These chapters both complement and challenge early development studies focused on error because they invite a return to specific features of language and at the same time insist on embedding that attention in larger issues of discourse.

Coded interviews, students’ written reflections, and papers collected in minors’ eportfolios and in archives created by nonminors provided an environment where we could compare early and late selections, follow themes, and look closely at cases of individual students. We were able to read across interviews, selections of writing, and reflections to develop rich portraits of student writers. Reflections written by students also offered insights into the futures they imagined for themselves, suggesting how students constructed themselves professionally. In addition, we analyzed the digital features of eportfolios, including the navigation system, the use of multimedia including auditory and visual tools, and coherence of the various elements that comprised the whole. The collaborative nature of our research meant that more than one of us wrote about the same student, which resulted in even more fully elaborated and sometimes contradictory portrayals of an individual. Appendix 6 lists the pseudonyms of all students included in this collection, along with an indication of the chapters in which they appear.

This multiplicity of approaches yielded an array of findings, each of which builds on earlier studies of writing development among college students. The chapters dealing with automated text analysis or corpus linguistics contribute to the language-focused aspects of writing development. The chapters centered on feedback, self-efficacy, and transitions add to the literature on the relationship between
personal and writerly development. The chapters on genre augment studies of the connections between disciplinary expertise and writing development, and the chapters on digital texts speak to other studies of digital and multimedia writing. All of these findings elaborate on the principle that writing development never follows a constant or straight path; it is marked by starts and stops, by blind alleys and 180-degree turns, and by frustrations as well as unexpected discoveries.

Organizing Principles

Conducting all the studies associated with this project was challenging, but it was equally challenging to decide how to represent what we found. There is, as Anne Beaufort notes, “no grand theory of writers’ developmental processes” (24) around which we could organize our work. There is not even an agreed-on set of terms to use. Beaufort’s five-part model includes some dimensions that align with our study, but the strong emphasis on disciplinarity—evident in both subject matter and discourse community knowledge—does not resonate with our findings. To be sure, students in our study were aware of disciplinary discourses, but as we learned, they were as engaged in subverting them as in assimilating to them, and as we learned in an earlier study, even writing-in-the-disciplines courses are not always discipline-focused (see Gere et al. 2015). Both student agency and curricular design, then, led us away from the Beaufort model.

An alternative model of writing development entered writing studies with “The Value of Troublesome Knowledge: Threshold Concepts in Writing and History” (Adler-Kassner et al.) in 2012. In the ensuing years, threshold concepts have stimulated a good deal of conversation and debate. Indeed, their categories have shifted with time, as a comparison of the 2015 Naming What We Know (NWWK) with the 2016 Critical Transitions: Writing and the Question of Transfer (CT) demonstrates. While NWWK focuses on articulating core principles of the field, albeit with an emphasis on their contingent nature, CT’s threshold concepts serve as “a framework for designing for and understanding transfer of learning across contexts” (18). Both, however, describe threshold concepts as critical for those who want to help students learn to write more effectively. At the same time, theorists of threshold concepts acknowledge that concepts are continually shifting and emerging as we learn more about how students learn to write. This study demonstrates such claims by describing multiple aspects of students’ writing development, and, thereby, building on and complicating threshold concepts.

The overarching concept prominent in both NWWK and CT is Writing Is an
Activity and a Subject of Study, which serves as a metaconcept for our study since both we and our student participants engage regularly in (the activity of) writing and at the same time deepen our understanding of the concepts that mark it as a bounded area of study. While we identified alignments between our findings and articulations of threshold concepts from both NWWK and CT as well as from Beaufort’s model, our findings led us to create our own adaptations in response to what we learned from students. For example, the social aspects of students’ approach to writing included an affective dimension, something not represented in existing threshold concepts but addressed in several chapters in this collection. While disciplinary subject matter knowledge and discourse communities did notloom as large in our study as they did in Beaufort’s, they were a topic of discussion for many of our students. Other features that emerged from our data included the quality of high school preparation and the development of rhetorical stance. We also found that motivation and self-efficacy, capacities for generalizing and expressing certainty, and the reading-writing relationship registered as important for our students. All of these findings aligned with the claim that threshold concepts offer foundational assumptions about writing without linking these assumptions to specific goals or learning objectives. Even as we look to threshold concepts, we affirm the assertion that it is not possible or desirable to try to name and define all such concepts. This book takes up and extends the invitation to continue the effort of naming what we know—about developing writers.

Each section of this book casts a different light on how students and their writing follow various developmental paths. The first section, which considers both audience awareness and feedback from peers and instructors, centers on what Beaufort describes as rhetorical knowledge and the concept that writing is both social and rhetorical. The second section includes chapters on students’ approaches to the conflation of disciplinary expertise and writing development and on the “types of writing” or genres described by students in our study. The third section contains chapters that focus on language, demonstrating how attention to sentence-level features illuminates entire texts. This entire collection embraces the idea that writers never reach a state of complete mastery; they always have more to learn. However, we focus on this concept specifically in section four. The final section looks at two sites of writerly development, the transition from high school to first-year writing and the transition from college to new writing environments. These descriptions suggest more bounded categories than we intend. Many of the chapters could easily be shifted to another section, and the sections themselves are as contingent as the models on which they draw. However, this organizational plan provides a framework on which to build further research. To that end we make our data available.
in the digitally expanded version of this book, which can be found on the Fulcrum platform at https://doi.org/10.3998/mpub.10079890. The basis for more generative conversation appears in the conclusion as it pulls together insights from the entire project to ask questions and offer suggestions to colleagues interested in fostering the development of student writers and to researchers who will sit around other tables in other rooms.

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