Strict cause-effect relationships do not explain development which entails the emergence of novel forms and functions among people and their worlds.

—Michael Cole, Cultural Psychology

Understanding the work that we and our students do requires multiple perspectives, sometimes looking closely at specific reading and writing tasks but often stepping back to examine the longer process of development in which those tasks are embedded. Teachers rarely have the opportunity to follow students' development over time. Like proverbial blind men examining an elephant, professors tend to describe student literacy in terms of the one part they happen to get a hold on in their classes.

In the previous chapters, I looked across our study group of 20 students to analyze some of the ways their writing development was supported or constrained in their general education courses, their academic majors, and experiences outside the classroom. Here, I want to summarize our study conclusions focusing particularly on the role of first-year composition in writing development, the desirability of upper-level writing requirements, and on writing assessment. The last section of this chapter offers recommendations for instruction that supports student development.

Our study challenges the myth that even students who by most traditional measures would be considered "prepared" for college "can't write" and shows that the problems students face in academic writing are not primarily grammatical. It demonstrates that college writers who may be proficient in constructing simple reports or arguments will struggle with tasks that require more complex analysis and methods of presentation. However, it is in struggling with these tasks that they develop new skills. College faculty members can
support novice writers in these periods of transition as students work out the strategies they need to take on new roles as writers.

**The Role of First-Year Writing Courses**

From our study, what can we conclude about the role of the ubiquitous, required first-year composition course in developing the proficiency in writing presumed to be useful in college or the workplace? Sharon Crowley (1998) and others have argued that the almost universally required composition course is so fraught with theoretical and practical problems that it ought to be entirely eliminated, replaced with writing electives that students can choose if they need them.

However, based on the experience of our study students, I would argue that institutions which require a core of general education courses should continue to require a one-semester writing course. Such a course serves a useful, albeit limited, purpose as a transition from high school and other previous writing experiences to writing in the university.

As Crowley argues and our research supports, there is no such entity as the generic academic essay. However, much of the writing our students collected in their portfolios does reflect some general academic expectations that run counter to many high school students' belief that a five-paragraph essay supported by general, often personal, reasons and examples will serve for most writing purposes. Students' "normal" ways of reading and writing, acquired through popular culture as well as through schooling, are challenged as they move into a new setting. In college, they must learn some new "basic skills," including reading and evaluating difficult texts that offer diverse viewpoints on complex issues, locating and then making sense of the overwhelming volume of information available through paper and digital sources, integrating new knowledge with personal experience and values, understanding and employing the conventions of new genres of writing, and writing as an "expert" for an often critical audience. These skills are reflected in
students' writing across disciplines, from Randall's biology research report on sharks to Andrea's analysis of a Supreme Court case to Carolyn's fictitious fund-raising speech by Elizabeth Dole.

Students also point to the value across the curriculum of more homely skills, like finding an appropriate organizational structure and paragraphing, using transitions, developing some kind of controlling idea, constructing introductions and conclusions, and improving style and editing. Though there is no one generic essay form across the curriculum, many assignments and essay tests in general education courses and across disciplines do call for a thesis-driven analysis or argument supported by appropriate evidence. And this type of argument is also useful as a form of public discourse to debate civic issues. Beyond this general format, students need the rhetorical skill to analyze new writing situations and adapt to differing genre conventions. They need, like Andrea for example, to be able to adapt that more generic essay by recognizing that political science requires more factual and detailed analysis than what is generally expected in first-year courses.

Presumably, students could acquire all these skills "on-the-job" in discipline-specific courses; however, because the composition course is less concerned with "covering" subject matter, it can better provide a space early in the college experience for students to step back and focus directly on their own literacy development. From a developmental perspective, it makes sense to create such a space, where students can take stock of the literacy skills they have already acquired, encounter new expectations, and expand their repertoires without the added requirement of learning at the same time extensive new subject matter, as they will in more discipline specific courses.

Although students value learning specific literacy skills, developing metacognitive awareness is equally valuable. As Jerome Bruner (1996) argues, in subcommunities that specialize in learning, experienced practitioners and peers can help the student "to achieve full mastery by reflecting... upon how she is going about her job and how her approach can be improved" (64). First-year
composition courses with an emphasis on rhetorical analysis and the processes of reading and writing and with teachers who are skilled in this type of analysis are especially appropriate places for this kind of reflection. A focus on developing metacognitive awareness as well as developing new writing skills is as useful for students who already know “how to write” as it is for less well-prepared writers. Without such awareness, “good” writers may find it especially difficult to change writing strategies that have worked for them in the past.

To truly reflect the diversity and difficulty of literacy tasks students are likely to encounter across the curriculum, most composition courses could be more challenging than they are now and could provoke even more conflict, both within the student and within the classroom. As Marilyn Sternglass (1997) points out in her study at The City College of The City University of New York, even students who are less experienced writers can develop the critical literacy skills necessary to succeed in college, if they are given sufficient time and support, and she urges that these students be challenged by complex literacy tasks from the beginning of their first composition courses, since these are the kinds of tasks they must learn to negotiate across disciplines.

Based on what we have learned from our longitudinal study, I have revised my own first-year writing course and, currently, as director of composition, I encourage other teachers to make similar changes. From their first assignments, students work with multiple texts, written in differing forms and offering different perspectives. A recent textbook by Charles Cooper and Susan MacDonald (2000), Writing the World, provides a good, prepackaged example of this type of assignment. Readings about gender and communication contrast popular perspectives like John Gray’s Men Are from Mars, Women Are from Venus with more scholarly work done by Deborah Tannen and academic critiques from Katha Pollitt and Senta Troemel-Ploetz. Students struggle with the difficult task of evaluating so many different perspectives, especially those that may conflict with their own beliefs about gender. On a practical level,
they struggle with how to construct an argument that won't fall neatly into a thesis-and-three-supporting-ideas format. And, often, they don't do this very well.

But here is where longitudinal research gives first-year students and their teachers a dispensation. Students do not have to “master” all aspects of academic writing; they need only to begin. They will spend years developing new ways of writing. This is not to say that “skills” don't matter. As in most composition courses, we spend much of our time looking at student papers and discussing how they might be more effective. Our study students especially valued this focus on their own writing and on specific suggestions about how their writing could be better. But we also have freedom to experiment. Students practice rhetorical analyses of different genres of writing in magazines and newspapers and try their hand at adapting one of their early academic essays for a different purpose and audience. A student, for example, may take her earlier work on gender and communication and use this information to write a self-help column for a teen magazine. Again, we are not interested in “mastering” journalistic writing but in “learning how to learn,” in learning how to adapt writing for different contexts. In addition, we learn something about how the discourses of popular culture are constructed, how they may be misleading, and why they may not be successful in academic settings.

Based primarily on our study students’ emphasis on the importance of “hands-on” learning, learning outside the classroom, I have also added a service-learning component to my English I course. As we research and write about issues in education, students work in local schools and tutoring programs. While the whole area of service and experiential learning deserves volumes on its own, (see, for example, Adler-Kassner, Crooks, and Watters, 1997), I can say here that from the perspective of literacy development, working outside the classroom does add a new element to students' repertoire. Though they are not writing for the schools in which they are working (another option), they are integrating observation and interviews with text-based research, again expanding their perception of the issues and of what is possible in their own research and writing.
Of course, because we are interested in development over time, students in English I and II keep portfolios of their writing, frequently assess their own work, and revise their writing over the course of the semester. In our longitudinal study, students reported that one of the reasons they stayed with the research project was because they valued having a record of their college experience in the form of their paper and, later, digital portfolios. These students enjoyed discussing the changes they observed in their own work. As experiments inevitably change the subjects of an experiment, students became more aware of their own development as they examined their own work and verbalized what they felt they were learning. Such metacognitive awareness helps promote further learning.

Focusing on first-year writing courses as a point of transition, not a final destination or a detour to fix literacy problems before students begin their real journey, means that many types of courses can be effective as long as they truly challenge students to move beyond their comfort zones and solve problems that are just beyond their reach. As I discussed in chapter 3, at Pepperdine we have experimented successfully with several kinds of special interest English I and English II courses, including sections focused on women's studies, ecology, service learning and social justice, the civil-rights movement, film, popular culture, and political issues, among other topics. We advertise these sections to incoming students who can choose a special emphasis or a more generic course. Through linked assignments, the special emphasis classes help students build content as well as process knowledge in order to write more complex critical analyses, though the focus of the course is always meant to stay on students' literacy, not on "covering" content. Some of the special emphasis sections also explicitly aim to change students' values as well as their writing, but again their influence is likely to be transitional. Some students will continue to follow an interest emphasized in English I or II, like Andrea, for example, who took as many courses as she could in African American studies. Others will continue to be involved in service to the community or women's issues on campus. Some will silently or not
so silently resist, like Deborah, who felt her conservative values were under attack. For most, however, this one semester in their first year is certainly not a life-changing experience and becomes just one piece of the larger picture they construct from their personal experiences and classroom learning over four years.

*Adding an Upper-Level Writing Requirement*

In addition to a one semester first-year writing course, we have recommended, based on our longitudinal study, that Pepperdine, like many other universities, add an upper-level writing requirement to focus on writing in a student's major discipline. This requirement is satisfied at other institutions through writing-intensive courses or specific advanced writing courses. We found that the research and writing courses that some of our study students took in their major disciplines, for example, in psychology and history, were quite effective in making explicit the often tacit expectations of the field and could usefully be instituted in other disciplines. Such courses not only teach literacy skills but, again, increase student's metacognitive ability to assess how they might perform differently. In the course of our study, Paul and Georgia began to envision themselves as psychologists, and Terri took the step of becoming a "real" historian by working with primary materials. We are a bit more skeptical of simply labeling courses "writing-intensive," unless these courses are carefully constructed. Course syllabi may emphasize writing, as for example in the freshman seminar program on our campus, and, yet, student portfolios indicate a wide variety in the kinds and amount of writing actually produced and the kind of instruction and feedback students are given to support this writing.

The upper-level course requirement would replace a second semester of composition at the first-year level. Although our study students included in their portfolios papers from their second composition course and pointed out learning more about research, style, and general essay structure, it is clear that the next major transitions in their development as writers took place as they struggled to integrate the content knowledge, concepts, and research and writing
conventions in their major disciplines. This is the "teachable mo-
ment" in which to intervene with a second writing course for this
population of students, a second "space" in the curriculum to focus
on academic literacy.

Assessing Writing Proficiency and Development

Comparing students to each other across academic programs is dif-
ficult because, although we might standardize the measuring in-
strument, we can't standardize the students' experience; the de-
velopment of Sarah's literacy doesn't look the same as Carolyn's,
Kristen's, or Andrea's. The classic "pre-" and "post-" measure of
writing improvement is to take a writing sample before "treatment,"
take a writing sample after "treatment," mix them together and see
whether the "post-s" get higher scores than the "pre-s." We chose
not to include this kind of generic, timed writing in our study as not
representative of how students actually negotiate more complex lit-
eracy tasks.

But what is the outcome of four years of development? Parents,
administrators, future employers, students themselves, and other
stakeholders are likely to grow weary of complicated explanations
and want to know simply whether students actually improve as
writers as a result of their college experience. The short answer is
that portfolios collected in our study do support the conclusion that
the students did develop new and more complex forms of literacy
over their four years of college. However, a more complicated an-
swer would reflect the cultural/environmental perspective on de-
velopment that I have argued for throughout this study.

That perspective, elaborated in the work of the developmental
psychologists discussed in this book, maintains that "proficiency"
must be seen in relationship to the specific tasks engaged in by the
learner. Cole (1996) reinforces the point that the cultural perspec-
tive takes as "an appropriate unit of analysis . . . a cultural practice,
or activity system, which serves as the proximal environment of
developmental change" (p. 179). The specific cultural practices as-
associated with writing in the university are diverse and complex.
Through multiple interactions with teachers, peers, and texts, students internalize a language and strategies for approaching new reading and writing tasks.

From this perspective, one important measure of students' growth was their increasing metacognitive awareness, their growing ability over four years to describe the methods and conventions of their own disciplines and to point out examples in their portfolios of how they had been able to change their writing to meet these disciplinary expectations. They became better able to assess their own proficiency and target areas where they were still struggling and could continue to improve. The act of assembling a portfolio and reflecting on it during our study helped to promote this kind of growth, as students compared their earlier work to later projects.

Often, students did not identify their growing proficiency as "improvement" in "writing," which many continued to equate with matters of style and grammar taught in English classes. Instead, students focused on their ability to complete challenging literacy tasks they could not have accomplished as first-year students—to read and analyze specialized texts, to conduct research and report on it, and to produce texts, like legal briefs or public relations campaigns, that are intended to do work in the "real" world.

The students' self-reports were supported by evidence in their portfolios, especially the work they selected for their digital portfolios as representative of significant learning. In general, this work had already been judged to be successful by professors in the students' major disciplines. Professors' comments and grades reflected their evaluation that students were proficient enough to successfully complete increasingly more complex tasks in increasingly more difficult courses. By this measure, our study students were quite successful. 14 (70%) of our group of 20 graduated with a GPA above 3.0, 5 (25%) had a GPA above 2.5, and only 1 (5%) was close to a straight "C" average, graduating with a 2.27 in accounting. All of the students included in their digital portfolios at least some "A" and "B" papers written during their college careers.

Oddly enough, although grades are a powerful force in the institutional lives of students, determining their success or failure
in gaining academic credentials, grades often are not credited by the institution itself as legitimate markers of proficiency in basic literacy. Timed writing-proficiency tests or standardized portfolios are common ways of attempting to assess performance outside of individual courses, suggesting that institutions are worried about grade inflation or lack of standards and have little faith that their academic programs provide sufficiently rigorous literacy instruction. However, these generic assessments are unlikely to capture the "novel forms and functions" that Cole (1996) notes are the hallmarks of development, unless the assessment is embedded in a specific program with clear goals for literacy that can be articulated by faculty, students, and other stakeholders. Otherwise, a single test can produce only the most reductive measure of how students actually negotiate the complex and messy literacy tasks of their major disciplines.

If professors give grades indicating that students are literate enough to function in their classes, why should a single test function as a gatekeeper? Such tests must necessarily ask students to write a generic essay that could be produced by any student in any major. While these generic essays are similar to texts produced in English composition and some other general education courses, this kind of timed writing on demand is more decontextualized. It plays again to the fantasy that we can produce students who can write on any topic, at any time. Certainly, such tests can accomplish a crude sorting of students based on their ability to produce this kind of essay. However, a test requiring a generic essay ignores the very different kinds of practice in reading, research, and writing that students experience in different courses. For the amount of effort that must be invested in mass testing and grading student essays, there seems to be little payoff in terms of what can be learned about student literacy. And there is a negative payoff for students who are using literacy strategically to accomplish goals set in their classes but must backtrack to learn how to pass the test.

Writing assessment portfolios include more extended samples of student work but are again difficult to standardize across the curriculum. For this study, we chose to collect naturally-occurring
examples of student literacy because we were interested in how literacy develops in the day-to-day classroom experience of students. These naturally-occurring samples of writing differ greatly in length, form, style, assumptions about research and evidence, and other conventions. It is possible, of course, to establish a standardized portfolio-assessment program, asking students to submit roughly comparable types of papers and developing generic rubrics for evaluation. Readers can be trained to make gross distinctions of unacceptable, satisfactory, and excellent on generic traits like complexity, organization, development, sentence structure, and usage.

Ideally, however, portfolio assessments are likely to work best within specific programs that have clearly defined goals and a strong sense of how students will acquire the skills being measured. For example, based on what we have learned from our longitudinal study, we are beginning such a portfolio assessment of undergraduate English majors preparing for teaching credentials. As part of a statewide effort, we redefined our goals for prospective teachers, redesigned our curriculum to include a required advanced writing course, and developed assessment rubrics that correspond to our goals. Students are developing digital portfolios that they can use when they apply for teaching positions. This kind of assessment benefits from looking outside of the program as well as within the discipline's courses. We can compare our standards to other credential programs in the state, and importantly, we have asked outstanding classroom teachers who supervise student teachers to let us know the strengths and weaknesses of candidates we send out in the field. For students, working to develop the literacy needed to be an effective teacher seems a more worthwhile goal than simply developing the literacy necessary to pass a test. Comparing work from different courses in the portfolios gives faculty and students a broader view of students' development over time and shows how that development is shaped both by course work and by "hands-on" experiences, like participation in K-12 classrooms.

Following 20 different students over 4 years teaches that there is no one-size-fits-all model of proficiency. As Cole (1996) points out in the quote at the beginning of this chapter, because development
leads to the production of novel forms, it cannot be explained in terms of strict cause-effect relationships. Instead, to return to Bronfenbrenner's (1979) more complicated definition, "development is defined as the person's evolving conception of the ecological environment, and his relation to it, as well as the person's growing capacity to discover, sustain, or alter its properties" (p. 4). This development occurs both by accident and by design through the agency of those persons who interact and help "coconstruct" their environments. Cole emphasizes, "mind emerges in the joint mediated activity of people" (p. 104). Although young adults interact in many different, interlocking environments, the school plays a special role. Ideally, this learning subcommunity "models ways of doing or knowing, provides opportunities for emulation, offers running commentary, provides 'scaffolding' for novices, and even provides a good context for teaching deliberately," reflecting to the young adult "how well she is going about her job and how her approach can be improved" (Bruner, 1996, p. 21). The most effective learning subcommunities involve students in assessing their own literacy development, while providing the scaffolding necessary to develop new skills.

**Recommendations for Instruction**

How can learning communities best provide the scaffolding to support learners in their development from novice college writers to more mature adults able to take on complex problems requiring advanced abilities to communicate? Though there are no universal solutions, this study suggests several recommendations for instruction that will be useful for composition specialists responsible for first-year programs and also for faculty across the disciplines. These recommendations are guided by the perspectives developed in this study. In revising instruction methods, we need to think about the student's environment from the student's perspective.

1. Rethink student work as "literacy tasks" and not "writing assignments." Focus on writing "differently," not just "better."

To think developmentally means taking a broader view of student
"writing." When professors assign "writing" and students are unsuccessful, professors may assume that students don't know "how to write." In fact, the kind of critical literacy required in college needs to be more broadly defined to include the ability to understand and use different methods of inquiry, sources of information (including other people and nonprint media), ways of working (including collaboration), forms of technology, and genres or types of reading and writing. It is helpful to think through all of the things a student must know and be able to do to complete an assigned task. What makes a successful response? When we compare the work of successful and unsuccessful students, what does the successful student know and do that is missing from the work of less successful students? The effective response may just look better with correct sentence structure and spelling, but unless the assignment is very simple, it will probably do much more. The students in our study were not bothered much by problems of punctuation or spelling, and yet they struggled with new tasks—how to approach a problem, how to find information, how to read difficult material, how to write in an appropriate academic style, and, especially, how to apply all of the new concepts and content knowledge they were rapidly acquiring. In addition, they needed to develop writing processes for actually producing coherent texts during the time, which was never enough, allotted for sometimes many different writing projects. The papers in the students' final portfolios indicated that, in varying degrees, they brought from high school the literacy skills to begin these tasks but that they needed to transform their "normal" ways of reading, writing, and thinking to meet the expectations of a new environment.

2. Conduct an audit of writing within academic majors or other specific programs and fill in gaps in literacy instruction.

Examining student development over time, where will students learn the concepts and skills to meet the literacy demands of their disciplines? English composition is an "introductory," general education course. In our study, most students in English I and II were introduced to some general conventions of academic writing, especially the expectation that writers make assertions and support
these with explanations, evidence, analysis, or other appropriate development. Students also learned some basic research skills, especially how to work with written sources, and reported, in some cases, learning, usually through teacher commentary and conferences, ways to improve their writing through revision and editing. But because students encountered so many different literacy tasks in their careers, an emphasis on any one kind of writing in first-year composition was unlikely to carry over into the more specific genres of writing in students' particular academic disciplines. Instead of mastering one particular style of writing, students needed to develop flexibility as writers, especially the ability to analyze different rhetorical situations and adapt writing strategies accordingly.

First-year composition was a space in the curriculum where students could practice new ways of writing without the additional burden of learning, at the same time, extensive content knowledge in an academic discipline. Students had the opportunity or were forced, depending on their point of view, to experiment with personal style and voice and to examine the ways in which language shapes our views of the world and ourselves.

But even for these relatively experienced writers working in small classes in pleasant surroundings, this one or two semester introduction to writing did not transform them into those fantasy students who could write anywhere, anytime, on any topic. We need to examine more closely how students' literacy education will continue beyond their first year. Major disciplines and programs need to consider, again, not just "writing," but what kinds of critical literacy they want students to develop. The model, in many courses, of two or three tests and a paper at the end of the semester does not give most students sufficient practice and feedback to become truly proficient. Again, it is helpful to collect portfolios of student work, in this case, across different courses within the major and compare the work of successful and less successful students. While many departments collect class syllabi and assignments, portfolios provide a clearer picture of student development. What teachers ask for in assignments and what students actually write are often not the same. For example, when we arranged for teachers to compare portfolios
across sections in our composition program, we discovered that although course guidelines were similar, the amount and kinds of writing produced in different classes were not the same. Comparing portfolios led us to develop greater consensus about how much writing students should complete in a semester and what kinds of writing should be emphasized.

In our longitudinal study, the amount of student writing was often uneven across semesters with much writing in some periods and none in others. This may be appropriate with some courses building a broad base of knowledge and others asking for application and in-depth thinking; however, students need to develop both ways of knowing throughout their college experience. In courses like research methods, students can focus directly on what counts as evidence in their field and how that evidence is generally presented. Writing-intensive courses should not merely assign more writing but need to provide direct instruction and practice in using sources, reporting data, applying concepts, constructing arguments, and writing in genres appropriate to the discipline.

3. Redesign the literacy environment to provide more options, in addition to those found in the academic majors, where students study material in-depth and negotiate complex literacy tasks over a sequence of courses.

This recommendation comes with some reservations. There is always a tension between breadth and depth in undergraduate education. Some students in our study, especially those undecided about a major, valued the variety of different courses in general education. Depth of knowledge was developed through courses offered within disciplinary majors. In addition, study students developed additional depth in disciplinary minors or in their own unofficial concentrations, where they combined required general education courses and electives to follow special interests in art, African American studies, foreign language, and other subjects.

However, environment matters, so if we want to change development, we need to restructure the environment. Students do best what they do most. The Great Books sequence of four courses at
Pepperdine, discussed in chapter 3, provides an example of this kind of in-depth learning. In addition to developing concepts and content knowledge, students over two years were explicitly taught a particular way of reading, discussing, writing, and critical thinking. While one might argue over what students should read and what kinds of writing, reading, and thinking skills they should be learning, the Great Books sequence does illustrate that complex literacy skills develop best with repeated practice over time and that students develop the particular types of critical literacy that they practice. Simply requiring several courses in a subject does not necessarily develop this sort of critical literacy. For example, students at Pepperdine are required to take three religion courses. While these do an admirable job of teaching about religion, they are designed for a broad range of students and are not structured to provide consistent practice in ways of writing critically about religious issues.

The Great Books sequence is able to create a rich literacy environment with small classes; self-selected, committed students and teachers; an emphasis on reading challenging primary texts; a uniform curriculum and method focused on critical thinking; and the leisure to consider concepts and content in-depth over four semesters. To what extent could this sequence be replicated with subjects of interest to other groups of students—the arts, political issues, science and ecology, ethnic studies? At Pepperdine, faculty have experimented with collaboration between composition courses and more content-based courses, as a way of carving out a little more time in the general education curriculum for students to read, write, discuss, and think deeply about issues. Coordinating such collaborations can be a bureaucratic nightmare and requires a commitment from both students and teachers. It is difficult to maintain the balance between focusing on content and focusing on students' own literacy development. Without this balance, coordinated course sequences can become merely extensions to majors that are always seeking to expand their required units. This pressure to train students only as specialists and future workers neglects their potential to act in other important roles, especially as broadly educated
citizens. Course sequences on the model of the Great Books seminars can emphasize diverse ways of knowing and not simply add to the student's stockpile of information. Structurally, such sequences seem easiest to initiate and maintain if they are relatively small, self-selected by both teachers and students, and not mass produced with a "one-size-fits-all" curriculum. These sequences may exist in conjunction with more broad survey courses, again giving students a balance between knowing about subject matter and knowing how to analyze and produce knowledge themselves as critically literate persons.

To some extent, however, rich literacy environments, like the well-funded Great Books program, may remain a luxury available primarily to already successful students in schools seeking to court well-off parents and donors. Creating such environments is expensive, and when programs are mandated without adequate funding, they may simply reshuffle configurations of students and teachers, often part-timers and graduate students, without really changing the learning environment. And for all their luxury, even the best-designed programs will still not fulfill the fantasy that students will learn to read, write, speak, and think, once and for always. In the Great Books sequence or any other we might initiate, students will learn a particular way of approaching texts and ideas, perhaps valuable, but, nonetheless, a way that must be rethought and relearned when they move into new contexts.

4. Develop projects and assignments that will challenge all students even if students' finished products are less than perfect. Take seriously students' questions about "what the professor wants" and provide clearly explained assignments, guidelines for performance, models, specific feedback, and opportunities for self-assessment and improvement.

Student work looks more finished and competent when students have less challenging assignments that they already know how to do. Students who were generally successful in high school can be successful with little effort on relatively simple literacy tasks. However, these assignments do not move students to develop new literacy skills. Students will work toward the level of critical literacy
called for in assignments and tests. On challenging tasks, students' initial performance may be unsatisfactory, and this less than successful work can be frustrating to both students and professors. But students can improve with feedback, self-assessment, and opportunities to revise their initial efforts or apply new skills in subsequent assignments. Students' progress can be slow, and we need to be able to tolerate less than perfect trial runs. Interestingly, students did not pick only their best work for their digital portfolios. They also included writing that was far from perfect but that illustrated significant turning points in their learning.

Writing performance and student learning are not identical. For example, although Andrea's performance as a writer remained uneven over her four-year college career, she clearly demonstrated new concepts, content knowledge, and ways of writing in response to the challenging assignments in her major. Some professors actually say they do not assign writing because students do not know "how to write." Whose sensibilities are they protecting? It may be romantic to be so in love with language that you cannot bear to see it misused by mere students; however, this does not make for good teaching.

As Terri said, "Professors assume that you know. Maybe everybody else knows but I didn't know." From the students' perspective, the only universal truth about college writing is that if you want to be successful, you have to give professors what they want. The least professors can do is make these expectations clear. Some professors say that all they want is "good writing" or that they want students to be original. In fact, I can think of one professor in our study who did encourage students to write very free-ranging essays and rewarded them for doing so. However, most professors have hidden or not-so-hidden agendas. Professors may think of explaining and modeling what is expected in literacy tasks as hand holding or remedial work. In fact, this support helps students bridge the gap between what they can already do and the new tasks they face in college.

The strategies for this kind of teaching are familiar from writing-across-the-curriculum workshops and guidebooks. (See, for example,
Bean (1996) Engaging Ideas: A Professor's Guide To Integrating Writing, Critical Thinking, and Active Learning in the Classroom.) I will summarize a few of the most common suggestions supported by our longitudinal study. Students appreciate assignments given in writing with specific guidelines for how the work will be evaluated. The assignment sheet may include a timeline of steps students will need to take to complete the project. Students respond to what they perceive as important to the professor, especially as these concerns are reflected in grading. If certain editing errors, like the difference between "its" and "it's" or the fact that commas at the end of a quote go inside the quotation marks, drive the professor crazy, preparing an editing check-sheet of key items and warning of dire penalties for violations can alert students to pay careful attention to such matters. Specific guidelines work better than simply exhorting students to write well.

In addition to guidelines, however, students need to see examples of successful and unsuccessful work within their disciplines. While students can learn some disciplinary conventions from reading professional articles, examples of student work illustrate the kinds of writing they themselves can reasonably be expected to produce. Most important are examples showing students how one makes assertions and supports them in the discipline or how one reports data and analyzes them. This balance between reporting information and constructing an argument or analysis is the most difficult for students to maintain. When students are given several sample student papers to evaluate, they themselves can usually identify the strategies used by more successful writers.

Providing feedback on student work is time consuming, but five well-chosen comments may be as effective as fifty-five very specific marks. How students take up professor comments depends on the context in which they are made. Professors in our study created a context for commentary in a variety of ways—by asking students to evaluate their own work with check-sheets or written self-assessments, by involving students in critiquing each other's work, by meeting with students in individual conferences. Ideally, this
commentary occurred before the last week of the semester, so students had opportunities to revise their work or to apply what they had learned on subsequent assignments.

Professors may feel that time spent on literacy takes away from the important concepts and content knowledge they need to teach in their disciplines. However, learning how to read, research, and write has to be part of what it means to “know” a particular field. Professors have so much tacit experience in this way of knowing that it takes a conscious effort to model for students how this critical literacy works.

5. Provide scaffolding to support development by directly teaching discipline specific research and writing skills, using grading strategically to reward improvement, scheduling interim deadlines for longer projects, and requiring classroom workshops, study groups, and teacher conferences. Create more opportunities for “hands-on” learning which may include guest speakers, field trips, projects, service learning, internships, and other connections between the classroom and communities outside the classroom.

As students acquire content knowledge in their academic disciplines, they also become more proficient in reading and writing the language of the discipline. However, this process is clearly accelerated when teachers focus specifically on the research skills and writing genres they expect students to employ. After completing the research-methods course in psychology which included intensive practice in writing, Paul and Georgia were able to explain more clearly disciplinary conventions and point out how they had changed their own work to write in a more professional way. Similarly, being guided through a major project, using primary resources, in an introductory history research-methods course helped Terri develop a deeper understanding of ways of reading and writing in her field.

However, despite these experiences, students often do not demonstrate the full range of their literacy skills. In most cases, the papers they turn in to professors are essentially first drafts. While students may revise as they write and leave a little time for a quick
edit, their papers are usually produced close to final deadlines. This seems to work for students who often get "B's" and, not infrequently, "As" on these drafts. This may be a perfectly acceptable writing process. There is no intrinsic value in revision for revision's sake. We are all strategic about literacy and often do not revise first drafts of texts, like letters or routine memos, that can satisfy an audience the first time around. However, if professors are dissatisfied with student writing, they may try to intervene in students' usual last-minute, one-draft approach to writing. Again, I don't want to over-emphasize the importance of grades, but our study showed that at Pepperdine, if not at other universities, students are very grade conscious and interpret the grade on a paper as the strongest signal of how well they are doing. A "C" is not an acceptable grade for most students in our college. Certainly, students are also motivated by their personal interests, course content, and rapport with the professor, but as busy people, they are more likely to take part in required, graded class activities rather than in optional opportunities for improvement. However, just grading harder doesn't necessarily motivate students to improve. In Terri's case, for example, she took her "C" grades in English and looked around for a different major. "Tearing apart" student papers only seemed to work when students knew they could ultimately benefit from this process. Susanna and Kristen improved in science by applying on subsequent lab reports what they learned from the extensive criticism of their first attempts.

How students are graded can influence their writing processes. When grades are focused entirely on a final written product, students may underestimate the literacy tasks they are being asked to complete. They may see the task as simply "writing up," as quickly as possible, the information most readily available. On the other hand, dividing the points for a project into separate grades for an initial research report, a preliminary draft, and a revision, for example, signals to students that the professor takes seriously each step in the process. Requiring study groups, writing workshops, or individual conferences ensures that all students, not just the best and most motivated, take advantage of different ways of learning.
Journals, reading responses, and other informal writing not only promote learning but also serve as interim steps to prepare for major exams and projects. However, students are likely to view these activities as busywork, unless they are closely related to the goals of the course and pay off in terms of improvement in their learning and course grade.

Students in our study often selected “hands-on” experiences as most significant to their learning. Those who had studied in international programs especially contrasted the benefits of learning language, history, literature, art, politics, and other subjects while living in a foreign country with their experience of learning primarily in the classroom. Closer to home, students commended projects and internships that took them into museums, businesses, churches, community organizations, and other sites where they could connect their classroom learning to an adult world outside of school. “Translation/critical literacy” as defined by Miles Myers (1996) requires that adults not only be able to decode and analyze texts but flexibly shift language strategies as appropriate to different problems, modes of communication, sign-systems, and discourse communities. School, alone, does not provide enough variety of environments for students to practice different literacy strategies nor demonstrate to students why they would want to learn different ways of knowing.

This “hands-on” learning can be time consuming to organize. However, the connection to the world off-campus can be as simple as inviting a guest speaker to class, requiring students to visit a museum and write a brief report, or including an interview with a local “expert” as part of a research project. When such activities are required, not optional, it also means an extra time investment for students. However, all students, not just the best and brightest, can benefit from observations, internships, and other off-campus experiences.

6. Reconsider with students, colleagues, and other professionals in your discipline whether “what the professor wants” is, in fact, what the discipline needs or should want. Encourage at least some experiments with writing in different forms for different audiences,
continue as they move into careers. The physical structure of educational settings subtly tells students what they are worth and is part of the way schools sort students for future status. Pepperdine tells students they are worth at least $24,000 a year. This pleasant environment can promote complacency and a sense of entitlement. Students may feel life is good for them and wonder why others in society are complaining.

It would be a mistake, however, to view our students as homogeneous. Although this study has focused on the participants' roles as "students," these young adults are much more, and each has a different family background and educational history. Because of the small size of our sample and even though there were more women than men, I chose not to single out individual students as representative of the experiences of their gender, race, or class. But, clearly, not all students felt at home in this affluent setting. Andrea, as an African American student, had to search through the curriculum to find the few courses that fulfilled her interest in African American studies. Terri was also disappointed by the lack of diversity among students and courses. In addition, Terri, like several other students in our study, had to maintain a complicated financial aid package, worked to earn additional money, and still left college with a substantial burden of loans.

And students in our study rarely discussed with me the darker side of their student experience. I know from my own courses that plagiarism sometimes masks students' inability to complete literacy tasks, but this subject was not brought up by students in our study, and I failed to probe the topic. More seriously, I know that one of our least successful study students certainly suffered from incapacitating depressions. But, again, this was not an area she wished to discuss with me in-depth. Students' performances do not always reflect their competence or their potential. As young adults, students struggle with family problems, relationships, physical and mental health issues, and the choices they must make about their futures.

Nonetheless, perhaps students at Pepperdine do not reflect the
general state of literacy among college students in California and across the country. In order to achieve equity in our society, we must focus much of our attention on our least successful students, those underserved by inadequate schools. In California, the decline in funding for education, due to property tax reform and state budget cuts, condemned many students to ill-equipped classrooms with untrained and inadequately trained teachers. Much of our effort must be addressed to eliminating the inequities between our best public and private schools and those that are not adequately educating children. And yet, we cannot label whole groups of students as necessarily "underprepared" for college. Over the past twenty years, I have worked with the California Writing Project, and I have seen talented, dedicated teachers and students working on remarkable literacy projects in K–12 schools all across the state, including those schools with the fewest economic resources. Students who want to continue their educations, despite economic hardships, deserve access to postsecondary institutions and opportunities to develop advanced literacy skills. Students do reach community colleges and universities ready to do college-level work or, at the very least, ready to begin learning to do college-level work.

Although we need to continue to focus attention on those students who will need the most support to negotiate the complex literacy tasks required in college, what happens to those students who consider themselves "good writers," or at least adequately prepared for writing in college, and who fill many of the seats in our classrooms? I hope I have shown that they are worthy of study. They will likely fulfill a variety of roles in our society as future teachers, journalists, lawyers, mid-level managers and leaders in business, government, and the professions. Even though they were generally successful in high school, they begin again with new roles and new challenges in college. Throughout the study, I have been impressed by the growth of their knowledge and their ability to read, write, and think in new and more complex ways. They have been inspired and supported by many of their teachers. I have also been disappointed by lost opportunities and times when students have
not been challenged or have been frustrated by school and, sometimes, personal circumstances in their efforts to grow.

I want to end with a quote from Cynthia Ozick's (1983) novel, The Cannibal Galaxy. Hester Lilt, a philosopher, writer, and the mother of a child thought to be "slow," is giving a talk on the topic, "An Interpretation of Pedagogy." She comments on the story of four rabbis viewing the ruins of their sacred temple. Three of the rabbis weep, but the fourth laughs. He explains that he sees the scene of destruction as a good sign, because according to prophecy, the temple had to be destroyed before it could be rebuilt.

"And that," says Hester Lilt in her commentary, "is pedagogy. To predict not from the first text, but from the second. Not from the earliest evidence, but from the latest. To laugh out loud in that very interval which to every reasonable judgement looks to be the most inappropriate—when the first is accomplished and future repair is most chimerical. To expect, to welcome exactly that which appears most unpredictable. To await the surprise which, when it comes, turns out to be not a surprise after all, but a natural path." (p. 68)

I began this study by referring to some of the doubts that academics in composition studies currently express about the work they have traditionally undertaken. These doubts raise several questions: What is the role of first-year composition? How do writing abilities develop across the curriculum? What can we learn from ongoing assessments? Ozick, speaking in the voice of Hester Lilt, reminds us to look at the big picture, to think longitudinally. Literacy development in schools is not a "natural path." It is shaped by the environment of schools—coconstructed by teachers, students, and other stakeholders. And, yet, it does occur in ways that are not entirely predictable. Composition specialists can be advocates for students, tracing how this development occurs, encouraging faculty and students to expect development which, at times, may seem chimerical, and suggesting ways to fill the gaps between
the first college writing and the last. Students, as they rehearse new roles, struggle to make these connections. Our continuing research and debates about first-year composition need to situate this course at the students' transition to college and also within the larger picture of students' literacy development. Work in writing-across-the-curriculum programs is likely to continue to be slow, messy, and underfunded, as literacy remains a tacit, not focal, element in most academic disciplines. And yet, this is where students develop their complex literacy and where they need the most support. Assessment, a current darling of administrators and accrediting agencies, can actually open a window on development, if assessments are embedded in and reflect the real literacy projects students undertake during their college experience. Composition specialists are unlikely to restructure the global environment of higher education, but with a longitudinal perspective, we can act locally to support literacy development and expect unpredictable surprises along the way.