

Efficiency, Correctness, and the Authority of Automation:
Technology in College Basic Writing Instruction

by

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DEDICATION

With love and gratitude to my parents, whose unwavering belief in the transformative power of education shaped this project and its author.

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This project is rooted in the experiences of students who are not always seen as expected entrants to higher education. In a small way, I understand that feeling. When I began doctoral studies in the fall of 2012, at the age of 41, and after many years working in another field, I more than once looked over my shoulder, wondering if I really was in the right place. I will perhaps never fully find a way to express my deep gratitude to the two people who made clear every day I was in the right place and doing the right work, but I will begin here by thanking Anne Ruggles Gere and Anne Curzan for their unwavering support and mentorship. As teachers, advisors, and as co-chairs of this project, Professor Gere and Professor Curzan have shaped me as a scholar fully empowered to challenge how we think about the ways students at all levels of preparedness learn about language and about the possibilities of writing. I will always feel enormously lucky to have done this work with their guidance and support. I am, likewise, particularly grateful to the other members of this dissertation committee, Chandra Alston and Vilma Mesa, for their incisive guidance as I worked through questions about research methodology, theoretical framing, and the basic logistics of juggling a project of this scope. I cannot imagine a more encouraging, rigorous, or inspiring dissertation committee, and I consider each member to be an important model for my own work as a researcher and educator.

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ABSTRACT

Nearly one-third of first-year college students are required to complete remedial courses (NCES, 2013), costing public institutions an estimated \$1 billion annually (Bettinger & Long, 2009). This project examines a central tension in that much-debated policy space: whether colleges should pursue automated instructional tools to more efficiently prepare students in remedial classes for later coursework. Building on literature from composition and literacy studies and from higher education, this work investigates how pressures to make writing instruction for underprepared students faster and less costly risk restricting student access to complex literacy skills and, in turn, full access to college and professional pathways. The dissertation begins with a historical review of how technology has intersected with college literacy remediation across the twentieth century. A contemporary case study of a developmental writing course then examines student and instructor beliefs about the use of automated classroom tools in writing instruction. This work draws from and extends theoretical understandings of literacy as a social construct that is dependent on rhetorical awareness. The project also is framed by a consideration of the ways that beliefs about efficiency and Standard Language Ideologies (SLI) influence instruction and outcomes in college remediation.

Three central themes—authority, constraint, and possibility—emerge from this study. From historical analysis, the dissertation argues that the push to make college remediation faster through technological interventions is not a new phenomenon but, in fact, has been a recurring theme for the past century even as repeated turns toward automation have made little difference in remediation rates or outcomes. In the contemporary context of a developmental writing classroom at a regional community college, the project shows how automated instructional technologies assert strong authority over writing instruction and reduce the classroom focus almost exclusively to notions of correctness around language usage and conventions and standardization of form for written essays. Both students and teachers are reluctant to directly challenge this understanding of writing and writing instruction. Instead, they adapt their learning and teaching to meet the requirements of the technology system even, in some instances, as they voice doubts about its utility. Yet there also are moments of authentic possibility for broader learning and understanding through the use of the automated system. At various points, both students and their teachers bring their own critical questioning to bear in using the technology system to think more deeply about how language functions and the role of writing in their lives.

CHAPTER ONE

Technology's Promise and Complicated Reality in College Basic Writing

“Virtually all remedial English at the college level could be handled by automation, with the machine as an impartial judge of a student’s ability to move ahead.”

Kenneth S. Rothwell, composition scholar, 1962

“If it’s an actual paper, I would prefer the actual professor to look at it rather than the computer to look at it. Because a person will actually know what you mean. Because a person knows what another person goes through.”

Derrick, developmental writing student, 2015

INTRODUCTION TO THE STUDY

Nearly one-third of first year college students are required to complete remedial¹ courses (NCES, 2013), costing public institutions in the United States an estimated \$1 billion annually (Bettinger & Long, 2009). This project examines a central tension in this much-debated education and policy space: whether colleges should pursue automated instructional interventions in remedial classes as a way to more efficiently prepare students for later coursework and what implications for teaching and learning are raised

¹ I address definitional issues at more length within this chapter, but it is important to note my use of this contested term at the outset. Throughout this work, I use the terms *remedial* and *developmental* to refer to postsecondary literacy instruction for underprepared college students. In doing so, I recognize, and I concur, with scholars who have challenged these terms based on implications of deficit or ailment and based on the narrow focus on psychological and cognitive aspects of literacy this language conjures. However, this project contributes to both policy and academic conversations in which these terms offer a particularized point of common departure. I use these terms to establish this work within those spaces and not to indicate agreement with how this language positions students. Likewise, this project aligns itself within the sub-field of composition studies known as *basic writing*. I share the concerns of scholars who have critiqued this term for marginalizing underprepared students, but the term also has important historical significance within composition studies, and I use it for that reason.

by those choices. In one sense, this is a study of education technology and the ways it is—and historically has been—employed in the context of basic college writing courses. More broadly, though, this is a study of human interaction with education technology and all of the promises and contradictions, possibilities and constraints bound up in systems intended to streamline how and what students learn.

Technology and remediation have long intersecting lines. Kenneth Rothwell's certain belief in 1962 that automation could be the answer to remediation captures a long-held sense that each new technological turn might offer some way to help move students ahead faster, saving institutions time and money on instruction in literacy skills that often are perceived as being the realm of secondary and lower schools. In the first decade of the twentieth century, the educational efficiency advocate Leonard Ayers (1909) blasted remediation as the problem of the “money cost of the repeaters” (p. 89). And echoes of Ayers's critique about burdens of time and cost in remedial courses persisted across the century that followed and, already, into the next.

Concerns about costs and efficiency are reflected in state-level policies that, since the 1990s, have steadily relocated college remediation programs from four-year schools to two-year institutions based in part on the premise that publicly-funded, four-year colleges and universities should not be funding instruction in basic skills (Bettinger & Long, 2009; Parker, 2007; Rutschow & Schneider, 2011). At the same time that community colleges have taken on a greater role in college remediation, they also have faced pressures to reform developmental education as state and federal governments and private foundations have focused on tracking student success measures and raising degree completion rates (Bragg & Taylor, 2014; Calcagno & Long, 2008; Lesik, 2007).

As one response to calls for reforms in college remediation, institutions and policy makers in recent years have looked (again) to new instructional technologies as one possible way to help instructors deliver lessons in basic skills in literacy and math more efficiently and increase both student access to postsecondary education as well as rates of completion (Bell & Federman, 2013; Parry, Fields, & Supiano, 2013; Rutschow & Schneider, 2011; Smith Jagers & Bailey, 2010). What form these technologies take in the classroom varies. In some instances, course management systems, such as Blackboard or DesiretoLearn (D2L), function in the classroom to generate immediate scores on multiple-choice drills and quizzes of discrete literacy skills. Other instructional technologies—including the system that is central in this study, Pearson’s *MyLab* courseware—feature online modules that students can work through with limited instructor guidance, whether in the classroom or as part of distance learning coursework.

For writing courses, these classroom technology systems also increasingly feature automated writing evaluation² as an additional mechanized tool for instruction. Initially designed to score writing samples on large-scale, standardized tests, automated scoring technologies now also operate in classroom settings as a proposed support for writing instruction. Automated scoring systems ask students to compose short academic essays through an online system, which then generates instant feedback on mechanical features of the students’ writing. Proponents have argued that automated evaluation technologies have the potential to help developing writers, in particular, master technical features of

² Common language to discuss mechanized systems for evaluating writing has been in flux over the last decade. Here, I use the term *automated writing evaluation* to suggest the kind of feedback to writing—broadly conceived—that might be expected to occur in a classroom setting. Existing literature also uses the terms *automated essay scoring* and *automated essay evaluation*. In some critiques and in the popular press, these technologies also have picked up the pejorative label of “robo-graders.”

composition by offering quick feedback to students without consuming instructor time (Burstein & Marcu, 2003). But because this feedback is restricted primarily to conventions of standard language usage, scholars within English and composition studies have challenged the use of automated writing evaluation systems and questioned how these systems might restrict student understanding of writing to narrow constructs of mechanical correctness (see, for instance, Chevillat, 2004; Herrington & Moran, 2006; Herrington & Stanley, 2012).

Pearson's *MyLab* system, the courseware product used in the case study component of this project, includes automated writing evaluation through a feature called Write Practice. This feature was a new addition to the courseware offered to developmental writing classes in the fall of 2015 when I met Derrick, the student quoted above, in a community college basic writing course. A 2012 press release announcing the collaboration between Pearson and Knewton Adaptive Learning to incorporate automated scoring in the *MyLab* instruction system specifically touted the use of automated writing evaluation for "students in developmental programs across the country" as well as its potential to generate specific and detailed information about student performance for administrators. The press release quoted Knewton CEO Jose Ferriera saying, "Students generate a tremendous amount of high-stakes data that Knewton can analyze to ensure they learn in the most effective and efficient way for each. It is a new frontier in education" (Knewton, 2012, n.p.).

This project examines what that promised "new frontier" looks like in the classroom from the perspectives of students and teachers in the context of developmental writing courses. Existing research has focused on questions about the validity of

emerging technologies to respond to written texts, for instance, or about the ability of students to potentially “game” these systems, particularly in high-stakes setting. By contrast, this work focuses on the specific intersections where automated systems for writing instruction directly shape course structure and content and, more broadly, student and instructor views of writing, learning, and what writing makes possible.

Through the experiences of Derrick and other students enrolled in a developmental writing course that integrated Pearson’s *MyLab* courseware as a central component of the class, this study challenges a largely uncritical belief among policymakers and administrators in the potential of educational technology to reduce time and costs spent on remedial courses. These students, and their instructors, help to extend and to complicate our understanding of the role these technology systems assume in classrooms where, this study argues, the technology can be seen narrowing writing instruction to prescriptive notions of “correctness” or orderliness of form at the expense of broader exploration of ideas and rhetorical awareness. Or, as Derrick explained as he considered the limits of computer feedback and drew, instinctively, from rhetorical principles of audience and purpose: “A person will actually know what you mean.”

Three central themes—*authority*, *constraint*, and *possibility*—emerge from this examination of automated instructional technologies in college basic writing instruction. This project draws from these themes to construct a complex picture of teaching and learning with automated technologies in the context of college remediation, one in which belief in the power of new technologies to reshape education persists even as those same systems can be seen restricting in ways the human and social components that shape writing; I offer a brief overview of the thematic findings here.

First, while technological interventions in college remediation commonly are framed as efficient and reliable supplements to teaching and learning, the findings from this study show that these classroom technologies ultimately exert powerful authority over students, teachers, and what counts as correct in academic writing. In the classroom, technology systems become an unyielding arbiter of what is “correct” or “incorrect” in writing and language use due to the automatic and unambiguous nature of its responses. Both students and teachers generally are reluctant to challenge the system and, instead, adapt their learning and instructional styles to meet the requirements of the technology system even, in some instances, as they voice doubts about its utility. Gary, a case study participant who aspired to work in the music industry and who flatly described himself as having always “been bad at English,” explained the technology’s influence over his writing development in this way: “It’s kind of like, ‘Here’s a paragraph. Find this, find that.’ If you get it wrong, then you know.”

Second, in classrooms where automated technologies play a central role in shaping understanding about correctness in writing, these technologies can be seen constraining student and teacher beliefs about the way that writing allows students to build new knowledge or find entry into new academic, professional, and community spaces. Rather than supporting instruction that views writing as socially constructed and rhetorically informed, automated systems more commonly reproduce and reinforce the idea that developmental instruction should be focused primarily on basic skills. The automated system helps to narrow the construct of writing that is taught in developmental courses by emphasizing instruction in specific rules of grammar and standard language usage and by framing academic writing as a set of discrete, atomized steps to be

completed in isolation from broader consideration about strength of ideas and rhetorical considerations such as audience, purpose, or arrangement.

Students can come to see good writing as writing that follows specific organizational formulas and adheres closely to notions of tidiness or correctness. Caroline, another case study participant, used writing away from school as a way to face emotional conflict—she shared in an interview that she kept a journal to make sense of the recent death of her father. But in class, she felt compelled to follow the direction of the automated system. “The idea is, it’s telling you if you’re doing it right or wrong,” Caroline said in a study interview. “So then I can fix it, and I can make it correct. Then the next time that I’m going to write, I won’t make that mistake again.”

Yet, to the final theme of *possibility*, the findings of this study do point to opportunities for broader learning and exploration of language and literacy using automated instructional tools, which in many instances are required by college departments or administrators as a way to measure performance and outcomes in developmental courses. Students generally are supportive of efforts to incorporate technology in the classroom, saying it offers a medium and a swiftness that more closely replicates the ways that they think about writing in other spaces, such as online social media. They also show themselves to be curious about language and willing to raise their own critical questions about the technology system and its narrow framing of correctness in writing. These moments of resistance suggest ways that the technology system could be harnessed to help students more closely examine how language functions and the role of writing in their lives.

This examination of the impulse to automate instruction for underprepared college students holds implications for classroom practice and, more broadly, for college remediation policy by offering a critical opportunity to rethink how developmental writing classes could function as a more viable gateway into higher education and less as a revolving door away from the academy. As it stands, the common path for students in remedial coursework is one that leads away from higher education. Bragg and Durham (2012) cite statistics showing that of students required to take two or more courses designated as remedial, only 20 percent will receive a bachelor's degree. That rate drops to 17 percent when students are required to take a developmental literacy course.

Driving this project is the belief that as developmental coursework engages students in the exploration of language and writing it will, in turn, offer students more reason to stay the course toward college completion. This view is informed by my doctoral studies and teaching work with undergraduate students at the University of Michigan, my previous teaching practice in developmental literacy classrooms and, more broadly, by my own prior experiences as a professional writer in a 15-year career in newspaper journalism. One central goal of this project is to share the rarely voiced stories of students and teachers working in developmental classrooms in community college settings and to fill the gap in existing research that has yet to explore the teaching and learning implications of automated responses to students (and their writing) who do not easily conform to traditional classroom expectations.

DEFINING KEY TERMS: TECHNOLOGY AND REMEDIATION

This study investigates technology in college remediation. Those very terms—*technology* and *remediation*—each name broad ideas that can represent many different

things to any given audience or reader. At the outset, then, I review how these terms operate within this study and, in the case of *remediation*, which is frequently (and correctly) challenged as promoting a deficit view of students, why I use the term.

Operationalizing Technology

For many of us, the term *technology* immediately calls to mind some gadget—the laptop on which I am writing, the mobile phone always in reach, the humming refrigerator, the cars zipping by outside. But just as this project seeks to look back to history to make fuller sense of contemporary issues in education, so it is useful to consider the evolution of the term *technology* to frame its meaning for this work. The word *technology* stems from the Greek *techne*, generally translated to mean *skill*, *craft*, or *art*. The Oxford English Dictionary records that in its earliest uses in the English language, *technology* was referred to as, “a treatise on practical art or craft,” a definition that held from the early 1600s through the mid-1800s (“Technology,” 1989). One early definition of *technology*, dating to the late 1600s, describes it as the “systematic treatment of grammar” (“Technology,” 1989)—a compelling idea in the context of this project.

Across time, the term *technology* shifted to define the branches of knowledge focused on mechanical arts or sciences and, only later, to refer to the products, machinery, or equipment that stemmed from those fields. The earliest references to *technology* as a kind of specific product—“a number of patents were granted for improvements in this *technology*” (“Technology,” 1989)—are not recorded until 1898, amid the advent of the Industrial Revolution and the rise of mechanization in manufacturing. More modern and more philosophical understandings of technology have reached much wider: the French sociologist Bruno Latour (1990) has referred to

technology as “society made durable,” and historian Thomas Hughes, writing in the 2004 text *Human-Built World*, called technology a “creativity process involving human ingenuity” (p. 3). Still another generative definition of *technology* comes from what might, at first, seem an unlikely source: the National Assessment of Educational Progress (NAEP), the federally-mandated testing program built in the 1960s around scientific management models for educational assessment, currently defines technology as “any modification of the natural world done to fulfill human needs or desires” (National Assessment Governing Board, 2014, p. 3).

Most useful across these definitions is the idea that technology is, at its core, a *human* and *social* construct—much like language and learning, as I will argue across this project. And technology’s power, then, lies as much in how we employ the product or system as in the item itself or the development of it. In this work, then, I use the term technology to refer to a range of human-designed systems created to carry out a purposeful set of actions. Certainly, this definition includes computer-based tools precisely like automated scoring programs or the system of online lesson modules that are the focus of the case study in this project. But this understanding of technology also encompasses broader efforts to systematize and measure literacy instruction, ranging from the invention of the printing press to standardized grammar drills to scaled measures of writing quality.

This conceptualization is neither wholly embracing nor wholly critical of the ways that technology so often is held up as a sure solution in education or the broader culture. Rather, this definition seeks to reflect the many ways that technology is shaped by humans and has the effect of shaping our actions and beliefs in ways that can be both

powerfully liberating and also limiting. Precisely because technologies are human constructions, we should expect that their reach and effect will contain human limitations but also have the ability to influence human responses. In framing technology this way, I draw from Walter Ong's 1986 essay, "Writing is a Technology that Restructures Thought," commonly seen as a foundational, if also problematic, text in literacy studies for its examination of divisions between oral and print literacy.³ Ong's attention to the ways that writing is a human construction and responsible for reordering social, economic, and educational structures points to the ways that technologies hold the power for broad influence over thought and actions. Ong writes that technologies "are not mere exterior aids but also interior transformations of consciousness, and never more than when they affect the word" (p. 32). Throughout this project, I seek to consider the ways that technologies are able to transform our thinking and behaviors around instructional practice and, indeed, around writing itself and the roles it plays in students' lives.

Naming Remediation

Remedial courses have existed almost since the beginning of higher education in the United States, and the first-year writing class has long been a kind of ground zero for identifying and attempting to address the needs of students considered underprepared for college studies. Examining the history of college remediation, scholars have argued that introductory composition courses since the late 1800s performed the role of sorting and ranking within institutions, most often in response to an influx of students viewed as

³ Ong's arguments about writing as a technology provide a useful way to consider the idea of technology beyond any particular gadget or digital innovation. His broader work, however, raises problematic divisions between oral cultures, which Ong frames as more simplistic, formulaic, and situational than print cultures, which he describes as able to be more complex, analytical, and abstract. While my definitional work around *technology* draws from Ong's thinking, this work should not be seen as endorsing his view of the "great divide" between orality and literacy.

outsiders to the academy based on factors such as immigrant status, geographic diversity, or economic class (Ritter, 2009; Rose, 1985; Soliday, 2002; Stanley, 2010).

Those students marked as unready for college studies through various institutional systems of measuring writing could face harsh judgment, even about their rightful place in the academy. The composition scholar Sharon Crowley (1998) cites an 1897 *Harvard Report*, which lamented that in papers examined from the English A composition course, “the most noticeable feature . . . is their extreme crudeness both of thought and execution” (p. 70). In her history of college literacy remediation, Monica Wyatt (2003) records complaints from the president of Cornell in 1869 about his students’ “utter ignorance” of the “common English branches,” and descriptions in the *Vassar Miscellany* of under-prepared students as “inferior forms” and a “vandal horde” (p. 15).

Institutional systems of stratification based on students’ command of standard language grew even further entrenched as colleges and universities began labeling courses as *remedial* at the turn of the twentieth century, a practice that coincided with larger numbers of students from immigrant backgrounds and from states beyond the Eastern seaboard seeking college admission. Examining remedial writing instruction at elite Eastern colleges in the period 1920 to 1960, Ritter (2009) recounts that as students at Yale began to represent greater geographic and economic diversity, administrators and faculty reported that students were less uniformly prepared for college writing. The solution was to steer students to additional skill-based writing instruction in what was known as the “awkward squad,” a term rooted in the notion of poorly trained British military troops and associated at the turn of the twentieth century in the United States with gym classes for physically unfit juvenile delinquents—a suggestion of a link

between illiteracy and criminality that would resurface repeatedly in policy and institutional debates about higher education access.

The term *remediation*, and its associated adjective, *remedial*, come from the Latin, where the term referred to the “process of curing or healing” and, from the late 1700s, came to mean the action of “remedying or correcting something” (“Remediation,” 1989). With this definitional history comes a long sense of remediation in schools as an attempt not merely to “fix” a perceived problem of educational un-readiness, variously blamed on lower grades or prior teachers, but also to somehow “fix” the students themselves. To be *remedial*—whether the label is affixed to a course or a textbook or a curriculum or a student—is to be somehow sub-standard. In composition courses, *remediation* across the first half of the twentieth century came to focus almost entirely on the notion of “error” and “non-standard” use of written, edited English. As Rose (1985) describes, instructors would, “set out to diagnose as precisely as possible the errors (defects) in a student’s paper—which they saw as symptomatic of equally isolable defects in the student’s linguistic capacity—and devise drills and exercises to remedy them” (p. 352). The remedial course, then, becomes the “fix” or the “cure” for language ailment.

Other terms have moved, helpfully, away from this deficit view. Shaughnessy (1977) introduced the idea of *basic writing* to composition studies, and while the term also has been challenged for a reductive view of underprepared students, it reframed students not as unfit but as beginners within the academy. It also marked an important historical shift in attention within composition studies to broader socio-cultural issues surrounding student preparation for college writing. Today, common terms for college

remediation include *developmental studies* (a term I also use throughout this work), *foundational studies*, and *transitional studies*.

Why use the term *remediation* at all? I suggest there are two reasons why the term holds importance within this work. The first is a matter of audience: within policy discussions at the state and national level and within large private foundations that play a prominent role in college access and readiness debates, the term *remediation* is a point of common departure. I use the term in this work because I believe the findings here are relevant within those policy debates, and I seek to demonstrate that we are focused on the same issues and tensions.

More broadly, though, I use the term *remediation* for historical purposes. I want to be clear that the concerns about underprepared students—and how institutions might best respond to them in the classroom—are not a new phenomenon, as so often is argued across the history of American higher education. Soliday describes the repeated political and institutional conflict over the “always-new student” (2002, p. 11); Rose calls it the “myth of transience” (1985, p. 355)—or the idea that the “problem” of underprepared students is somehow new to any given moment in the history of the academy and somehow can be contained through narrow curricular modifications. I seek to be clear here that the issues this work takes up are part of this historical pattern, and they call for broader, fundamental changes in how we frame the remedy within higher education.

THEORETICAL FRAMEWORK

This study is grounded in an understanding of literacy in which reading and writing and a range of other common practices of schooling are socially and culturally constructed and always dependent on context. Tensions surrounding how postsecondary

remediation might be made more efficient directly reflect the ways that beliefs about literacy instruction more broadly remain caught between the discretely measurable psychological and cognitive aspects of language use and socio-cultural understandings of reading, writing, and speaking. This project is framed around the idea that the introduction of automated instructional tools is one area where we might examine that tension and its possible resolutions more fully. This work seeks to extend consideration of literacy as social and cultural construct to consider more specifically the ways that rhetorical awareness and rhetorical practices also are shaped and informed by human interaction and responses. Rhetoric itself, the effort to inform or persuade specific audiences in specific situations, is dependent on social and cultural context, and I consider within this work the way the rhetorical principles surrounding ideas about audience and purpose, in particular, draw from specific social and dialogic practices.

This project also draws important connections between the ideologies⁴ of social efficiency in education and ideologies about standard language, both of which I suggest can be seen overlapping in the emergence of instructional technologies that are promoted as offering ways to “fix” students’ language use faster through automated reviews. Here, I turn first to the ways that this project is based upon socio-cultural theories of literacy and then discuss the ideological frameworks that also guide the work.

Literacy and Rhetorical Awareness as Social Practice

⁴ For this work, I consider the term *ideology* to represent a collection of ideas or worldviews that powerfully, but almost invisibly, influence how individuals believe societies and cultures should function. Drawing attention to the ways that these beliefs shape educational practice, Schiro (2008) has argued that ideologies persuade individuals “of the ways things should be done... of what is natural” (p. 9) and make any challenge of those systems deeply difficult. In this way, I see education as a site of contest between competing ideologies. Any exploration of any particular school practice—here, remediation—should recognize the contested nature of those positions.

Foremost, this work is rooted in an understanding of literacy as reading, writing, and speaking practices that are embedded in a web of broader social and cultural patterns and beliefs rather than as the collection of discrete, autonomous skills that can be acquired through repetitive practiced and objectively measured. My thinking about this contested space draws most directly from Street (1984) who frames these competing views of literacy in his challenge to “great divide” notions in which print literacy is represented as a decontextualized skill that can be neutrally acquired and can be seen contributing to broad advances distinguishing Western cultures from other societies. Street challenges this “autonomous” model of supposedly neutral language learning with a model of literacy as always shaped and influenced by ideological and political forces that vary based on contexts (pp. 2-4). In his work, Street explicitly defines *literacy practices* as *social practices*—ways of speaking, reading, representing one’s self—that depend on social institutions and interactions (p. 8). Or as Scribner and Cole (1981) have argued: “Literacy is not simply knowing how to read and write a particular script but applying this knowledge for specific purposes in specific contexts of use” (p. 236).

While this understanding of literacy has taken root in educational theory as well as in richly descriptive qualitative and ethnographic research (e.g. Heath, 1983; Moje, 2000; Sternglass, 1997), this framing of literacy learning remains under-represented in educational practice. Instead, on the ground, the autonomous model of literacy instruction still is reflected in large-scale standardized testing programs, in scripted curriculum packages, and in literacy instruction emphasizing mastery of Standard English through patterns of practice and correction of error (e.g. Irvine & Larson, 2007). In the context of college remediation, Grubb (2010) has described a prevailing *remedial pedagogy* focused

on drills and practice in small sub-skills (for example, sentence-level or paragraph-level writing tasks) that is typically delivered in “decontextualized ways that fail to clarify to students the reasons for or the importance of these sub-skills” (p. 10). This curriculum, as Grubb notes, frequently follows mandatory scripts and syllabi, of which automated instructional tools are one extension.

Indeed, much of the current debate within composition studies over emerging technologies that offer automatic feedback on aspects of student writing reflects a theoretical split in thinking about writing instruction specifically and literacy more broadly. For instance, computational methods of evaluating writing that use systems such as *natural language processing* (NLP) and *artificial intelligence* (AI) rely on cognitive and psychological models of language processing in which discrete parts of a written text such as morphology (word structure) or syntax (sentence structure) can be broken into discernable, countable units (Shermis, Burstein, & Bursky, 2013). This understanding of language allows machine systems to “read” some aspects of student writing. Yet this understanding also can be seen to be at odds with theoretical understandings of writing as a rhetorically complex and contextual—of writing as always more than the sum of its sentence- or paragraph-level parts. A resulting divide in research, as I discuss later in this chapter, has by extension restricted our understanding of how students and teachers interact with these types of technologies and how that shapes (or reshapes) understandings of writing and writing instruction.

Developers of automated writing evaluation systems acknowledge the limitations of the technology to “read” beyond mechanical features of the text. They have suggested classroom applications, for instance, that might see students pre-submitting a class essay

for automated review so that students might gain fluency in technical writing conventions while, with an instructor, “students could then review writing aspects not covered by the [automated review] model such as rhetorical strategies and audience” (Shermis, Burstein, & Bursky, 2013, pp. 10-11). The risk, as Grubb’s (2010) idea of the *remedial pedagogy* draws attention to and as the findings of this study suggest, is that little space may remain for students or instructors to explore other literacy practices that might be central to students’ lives or to recognize the role of writing in building new knowledge.

More specifically, this project is framed by the idea that rhetorical awareness constitutes a specific kind of social and cultural practice. As students are asked to gain a greater command of language for purposes of explanation, persuasion, and exploration in academic writing, they are enacting very specific social practices that depend on dialogic relationships between the writer and audience (reader). Christine Farris (2003) has argued that this development of rhetorical awareness not merely the regulation of language but the understanding of the ways that language always is at play in shaping, reflecting, and at times changing practices among particular members of communities. Likewise, Knoblauch (1985) has described the study of rhetoric as an examination of “the relation between language and the world,” that allows writing teachers to “locate their statements about *how* people compose within a framework of *why* they compose: what significance the activity has for their lives and for the life of their society and culture” (p. 27).

Barthes (1964-65) points to the ways that rhetoric reflects a technique or specific art (*techne*) and does depend in this way on the study of the “rules and recipes”—that is mastery of the systematic use of language—that make it possible for an audience to easily hear or to read the argument that is proposed; yet he argues further that understanding of

rhetoric is a specific social practice, one that is at once a privileged technique and one that can restrict and give access to power (pp. 12-14). In this balance, we can see the development of rhetorical awareness as it plays out in college writing courses as encompassing attention to language conventions and rules but always as part of broader socio-cultural patterns of power and access.

By grounding this research proposal in theoretical understandings of literacy and rhetorical development as culturally and socially situated, I explore how new technologies might, as some of the system developers themselves have imagined, allow for a more complex blending of discussions about the conventions of Standard English with investigation of rhetorical purpose and choice in writing for those students whose writing instruction otherwise might be restricted only to error correction and usage drills. This frame, then, reflects the ways that standardized language practices are themselves socially constructed and dependent on historical patterns of power, including dynamics of power within postsecondary institutions. It also leads, logically, to consider this work within the context of two ideological frames which I explore next.

Ideology of Efficiency in Education

Althusser (1971), writing about social class, describes ideologies as forces at once as omnipresent and as invisible as the air we breathe without notice or critique. This is a useful analogy to invoke in turning to the two other frameworks that support this study: the forces of social efficiency and standard language instruction in education. As discussed by Kliebard (2004), social efficiency theories of education grew from the belief that schools should exist largely to serve the interests of business and economic forces and, to that end, should position learning as a series of behavioral changes within an

individual constructed from the accumulation and repeated practice of discrete and confined sets of skills. Instruction focused on Standard English conventions, I suggest, can be seen as one logical extension of efficiency-bound instruction. Not only can language conventions be instilled through rule-bound repetition, but mastery of Standard English has long been (and remains) commonly linked to economic advancement for students required to take basic writing courses.⁵

Historically, too, instructional approaches focused on industrial efficiency have been tied to the idea that individuals should be educated only to their perceived capabilities. Or, as Kliebard (2004) writes, “That mission [of social efficiency] took the form of enjoining curriculum-makers to devise programs of study that prepared individuals specifically and directly for the role they would play as adult members of the social order. To go beyond what someone had to know in order to perform that role successfully was simply wasteful” (pp. 76-77). This belief that schooling should be primarily tied to workforce preparation and that such training might be achieved more quickly, and at lower costs, through the production of measurable, quantifiable results echoes across the history of school remediation (Ayers, 1909; Rose, 1985; Soliday, 2002). Indeed, such impulses on the part of policymakers and school administrators have long ties to the ways that schools have positioned students (and adult learners in

⁵ Consider, for instance, the first sentence of the first article to appear in the first edition of the *Journal of Basic Writing* in 1975. Sarah D’Eloia unapologetically writes that, “We believe teaching ‘basic’ writing is synonymous with teaching standard written English,” and she broadly links standard language conventions to “the mark of an educated person and, therefore, essential skills of economic and professional survival among students who are pursuing professional career options” (p. 5). While this single article hardly stands in for all basic writing discourse, it draws attention to a recurring trope not only in the literature of basic writing but also in political discourse that links completion of remedial coursework to economic advancement.

particular) not primarily as students engaged in intellectual pursuit but as workers preparing for economic roles.

Impulses toward industrial efficiency likewise can be seen in the origins of automated instructional technologies, including automated writing evaluation. While such systems today are associated most closely with use in the scoring of high-stakes tests, their origins can be traced to a former high school English teacher, Ellis Page, who in the 1960s began developing computer evaluation technologies for writing that had a distinct *instructional* focus. This work is discussed in detail in Chapter Two; briefly, though, Page reasoned that if grading student writing was less time consuming, teachers would assign more writing, thus helping students become better writers through more practice.

Page developed the computerized scoring system known as Project Essay Grade (PEG) in the early 1970s, predating not only commonplace use of word processing software for composition but also widespread public use of web-based interfaces and high-stakes assessments in U.S. schools (Shermis, Burstein, & Bursky, 2013). The convergence in the 1990s of those three factors—large-scale standardized testing, widespread access to computers, and the advent of the Internet—drove commercial development of automated systems able to assign scores to short, impromptu written texts included on large-scale assessments and in contexts such as college course placement tests. Machine-scored course placement tests for writing classes, for instance, now are widely used at community colleges—a move that has troubled some composition scholars (Herrington & Moran, 2006) but has been welcomed by administrators as a step toward more efficient and consistent college remediation policies (Russell, 2008).

Left unexamined, the influences of social efficiency ideology risk calcifying existing patterns of stratification in higher education. Too often, the common pattern across U.S. colleges is one where the best prepared students (often, those students who also are from the most privileged economic backgrounds) encounter instruction—and, specifically, writing instruction—that allows for authentic exploration and knowledge construction while the least prepared students (often, those students from the least privileged economic backgrounds) face classroom instruction restricted to narrow sets of skills that can be seen as connected to workforce preparation. This pattern intersects, I suggest next, with closely held beliefs about the primacy of Standard English instruction in college remediation that risk reducing instruction in writing to detection of error.

Standard Language Ideology

The emphasis on measurable error detection and correction reflected in literacy instruction bound to the social efficiency construction of schooling also can be seen as reinforcing Standard English Ideology (SLI) in American education. Lippi-Green (2012), in her exploration of discrimination linked to the myth of a single, unassailable standard language, argues that within schools, the teaching of Standard English is seen not only as a neutral norm but also as an *efficient instructional mode* that operates with powerful assumptions about students' future economic roles. In a critique that directly echoes the efficiency rhetoric that accompanied not only the turn of the twentieth century but also the technology-centric exaltations at the turn of the twenty-first century, Lippi-Green (2012) writes that, too often, language instruction remains restricted to a “one-size-fits-all proposition” under the rationale that, “If there is only one proper language for the children in our care, and only one proper variety of the language—which happens to be

the language of the socially and economically dominant—then it becomes easy, even prudent to dismiss the work that comes along with making teaching a dialogue rather than a lecture” (p. 84).

Lippi-Green’s work draws attention to the ways that tightly-held and virtually invisible beliefs about what language is, and how it should be taught, shape education and the experiences of students. Across schooling, instruction in reading and writing overwhelmingly persists in framing literacy as a set of discrete, unassailable skills. This approach to language instruction often is most plainly on display in reading and writing courses designated as remedial. Students whose writing (and/or speech) does not easily map onto these standardized features are viewed as less educated and less able. Within this powerful and rarely challenged view, non-standard language practices are viewed as *substandard*; and the role of the school becomes to unquestioningly enforce the kind of standardization expected by employers and other economic forces (Brandt, 2001; Lippi-Green, 2012).

The exploration of standard language ideology in this work is not intended to suggest that postsecondary literacy instruction should abandon instruction in conventions of Standard English. Indeed, from my own experience teaching in developmental classrooms, I recognize that the economic argument embedded in much of schooling and literacy instruction is a powerful and primary force that draws many (arguably most) adult students to college studies. It is fair, though, to consider how writing instructors might, at once, recognize the role of Standard English instruction as an important and useful economic and cultural tool but also seek out ways to frame that instruction in a way that allows students to recognize the value and importance of other language

practices and dialects, including the literacy practices they bring from home, work, and community. Curzan (2009) argues that it is both “intellectually dishonest and pedagogically irresponsible to pretend that Standard English is above question—to put it on a pedestal and leave it there unchallenged and largely unexamined” (p. 871). Yet too often in the history of college literacy remediation and basic writing, instructors and institutions have resisted exploring issues of linguistic diversity and rhetorical awareness while privileging discussions of error, correctness, and command of Standard English (Soliday, 2002; Stanley, 2010). This approach has established a kind of baseline of practice for postsecondary literacy instruction focused primarily on an unquestioning training in conventions of standard language usage.

In their ability to “read” student writing by counting linguistic features of the text, automated writing evaluation systems (as well as other automated scoring or grading tools) risk reinforcing notions of efficient, supposedly normative and uniform standard language practices. Cheville (2004), for instance, suggests that automated scoring systems reduce student writing to a focus on correction of “error” without consideration of the ways that error itself, like all literacy practice, is a product of social construction and of context. Herrington and Stanley (2012) argue further that automated evaluation systems reinforce beliefs about singular constructions of “correct” English and, in this way, could disenfranchise students who do not readily know or adhere to these same codes. The turn to automated feedback and instructional systems in the context of developmental courses presents new questions about what space higher education makes possible for students whose home language and other literacy practices do not readily align with classroom expectations around Standard English.

MOTIVATION FOR THE CURRENT STUDY

Although various stakeholders in higher education have signaled interest in automated instructional tools as a seemingly straightforward answer to the complex issue of college remediation, current research has not provided a detailed picture of what instruction looks like in these technology-centered classrooms or what students and teachers come to understand about writing and the role of literacy from automated exercises focused on grammar and standard language conventions. More specifically, existing scholarship has not examined the attitudes and beliefs of students and teachers in postsecondary remediation contexts toward instructional technologies that are intended to make writing instruction more systematic and more efficient.

This project seeks to contribute to our understanding of college remediation and the use of educational technologies in that context. To do so, this work builds from two related bodies of research: higher education research regarding technological interventions in remediation and research from composition scholars of automated writing evaluation systems.

Technological Interventions in College Remediation

The same concerns about rates and costs of college remediation that have driven state-level policy changes that redirected developmental coursework from four-year colleges to two-year institutions also are at the center of existing literature focused on remediation practices and results. More recently, interest in college remediation outcomes has been driven by concerns about overall college completion rates—particularly

completion rates at community colleges, targeted for improvement under the Obama administration (Obama, 2009; Offenstein, Moore, & Shulock, 2010).

In their 2011 meta-analysis of existing research on college remediation practices, Rutschow and Schneider note that these combined political and institutional forces have focused attention in recent years on efforts to accelerate remediation, including technological interventions in developmental education. Yet, as the authors note at the conclusion of their review, there is little research that carefully examines the results of these interventions or that offers researchers and practitioners a clearer understanding of how these efforts play out in classrooms. One challenge for reviewing existing scholarship is that the boundaries of work on emerging technologies are not restricted to remedial contexts. For instance, looking just at the example of fully online classes (across disciplines), community college researchers Smith Jaggars and Bailey (2010) note that while there is a fairly extensive body of research about online instruction, little attention has been given to the specific context of remedial coursework.

As noted by Rutschow and Schneider (2011), a number of colleges participating in college remediation reform efforts, including Achieving the Dream's Developmental Education Initiative and the Charles Stewart Mott Foundations' Breaking Through program, have adopted modularized courses as a way to speed students' progress through remedial course sequences (pp. 29-30). Early evaluations of these modular courses have shown some gains in student pass rates in developmental courses as well as gains in student persistence in subsequent semesters (Bragg & Barnett, 2009; Epper & Baker, 2009). Similar questions are raised in this literature about whether better-prepared students are more likely to perform better in classrooms incorporating this technology.

In one focus group investigation of how students in a developmental math course at a large community college responded to online modular course design, Ariovich and Walker (2014) report mixed responses. Instructors in the math courses were ambivalent about the computer-aided instruction, saying that it generally helped students take control of their own learning but added time-consuming administrative work to their teaching requirements. Students, meanwhile, said they did not always understand the notion of mastery underlying the modules and, at points, wanted more instructor involvement to explain complicated concepts.

For now, research addressing modular, automated coursework has generally focused on mathematics instruction and, even in that context, has generally not focused on what is taught, how it is taught, or how these approaches shape student understanding of and attitudes toward course content. In their call for more rigorous research of math instruction at community colleges, Mesa, Wladis, and Watkins (2014) explicitly draw attention to the need for further investigation of technology-aided instruction. Rutschow and Schneider (2011) make a similar call for research focused on developmental instruction more broadly, noting that, “Given the utility that technology holds for creating more individualized methods of instruction, researchers, policymakers, and practitioners should seek to better understand how such systems may be used to help students more quickly build their skills” (pp. 59-60).

Automated Writing Evaluation Systems

In writing classrooms, the emergence of automated writing evaluation technologies offers a specific point of inquiry to consider one kind of automated tool that is being deployed in developmental or basic writing courses. While no prior studies have

considered the use of these kinds of automated evaluation systems in the context of college basic writing, existing scholarship draws attention to some of the challenges and possibilities this technology presents and to the entrenched theoretical divide between system developers and composition scholars that this study necessarily will traverse.

As technologies for the automated scoring of writing expanded during the 2000s, much of the emerging research into these systems originated in the field of educational measurement. Researchers, often directly affiliated with the system developers, focused on questions of reliability, validity, and how machine scoring compared with human raters (e.g. Attali & Burstein, 2006; Chodorow & Burstein, 2004; Page, 2003). English and composition scholarship, meanwhile, challenged the use of machine evaluation of writing through questions about the accuracy of the scoring and feedback provided and about the ways such systems potentially neglect the rhetorical nature of writing (e.g. Anson, 2006; Cheville, 2004; Perelman, 2013). Both the Conference on College Composition and Communication (2004) and the National Council of Teachers of English (2013) have issued position statements rejecting the use of automated scoring of writing for testing and instructional use.

The debate over the growing use of automated writing evaluation systems in high-stakes testing and in classroom practice reflects, as I suggest above, a theoretical divide in understandings of language and writing. Computational methods of assessing writing rely on cognitive and psychological models of language processing that can be at odds with theoretical understandings of writing as a rhetorically complex and socially embedded process. Early supporters of automated evaluation systems have argued for a middle ground, suggesting that the technology could gain greater acceptance as it moved from

large-scale summative evaluation to a formative role in classrooms. Shermis, Burstein, and Bursky (2013) write that the use of automated evaluation systems for portfolios or pre-submission review of written work could allow instructors to see automated systems as a helpful tool rather than as a threat to the teacher's role in the classroom (p. xv). Burstein and Marcu (2003) argue further that there is a potential role for automated systems in teaching the discourse strategies of academic essay writing, noting that such systems could offer low-pressure feedback for students without burdening instructors.

A small body of research explores the possible effects of instructional practices using automated writing evaluation. While none of these studies examine such systems' use in the context of college developmental or basic writing courses, they provide a glimpse of how instructional patterns might emerge. Dikli (2010), for instance, compares teacher feedback provided to a small group of English language learners at a Florida college to the feedback the students received from an automated evaluation system. The study concludes that while teacher feedback to students often is shorter, it proves to be more focused and more instructive than the automated feedback.

Testing automated feedback and writing performance across three sections of a 100-level writing course, Kellogg, Whiteford, and Quinlan (2010) report that the scores overall show no reliable gains for any group, regardless of whether students self-elect to use the automated feedback system. However, the authors suggest that those students who receive continuous feedback from the automated system do show fewer errors in language mechanics. The authors suggest automated feedback could be useful as a supplement to human evaluation.

Questions of how students respond to these types of technologies are only tentatively explored in existing research. In a study involving pre-service teacher candidates given the option of using automated feedback technologies to complete required case study reports, Scharber, Dexter, and Riedel (2008) determine through interview and survey data that student self-conceptions of their writing strengths play a central role in their assessment of automated feedback. One student said his competitive drive to “beat” the automated scorer distracted him from focusing on the writing assignment (p. 19). Another student’s response suggests that her perception of herself as a strong writer left her disinclined to follow the guidance from the automated scorer: “I felt confident that my answers were good. When the scorer told me differently, I did not change them” (p. 23). These findings raise questions about how automated feedback might be perceived by students in the context of developmental writing courses, where issues of confidence in writing can influence student outcomes.

Overall, the body of existing research into instructional use of automated writing evaluation—like other classroom technologies emerging for postsecondary remediation contexts—is not extensive. Taken together, however, this work provides an initial sense of the ways that teachers and students are responding to automated evaluation technologies. Analysis of the existing literature, more generally, points to the need for further exploration of how such systems are used in classrooms, especially in college remediation courses where policymakers and administrators are closely watching whether these types of automated systems could help students to complete developmental course sequences more quickly and with higher rates of success.

Research Questions

This study builds on existing research by drawing together historical inquiry with contemporary case-study analysis to develop a detailed picture of efforts to make college remediation programs more efficient through the use of emerging classroom technologies. The project begins with a historical review of how automation has intersected with college literacy remediation across the twentieth century. The project then turns to a contemporary case study of a developmental writing course at a large, regional community college to examine student and instructor attitudes toward automated instructional systems in the context of a college basic writing course. This work was guided by three central research questions, and I list them here with related sub-questions that helped to clarify and refine the scope of inquiry:

1. How does contemporary adoption of “new” technological interventions for postsecondary literacy instruction reflect historical patterns to emphasize both time and cost efficiencies as well as correctness in written and spoken English for students considered under-prepared for college coursework?
 - a. What internal and external tensions have influenced decisions to introduce technologies in literacy instruction in prior decades?
 - b. What have prior technological interventions sought to achieve in the basic writing classes or other postsecondary literacy classrooms? What can be determined about their effectiveness?
 - c. What lessons about current efforts to integrate technology in postsecondary literacy instruction can be drawn from historical cases in which institutions sought similar interventions?

2. How do current classroom technologies influence writing instruction in the context of college remedial coursework?
 - a. How does the technology frame instruction in relation to conventions of standard language usage?
 - b. How do students and instructors take up, reject, or interrogate feedback on writing that is automatically generated by an online system?
 - c. What other uses does the technology play—or does it have the potential to play—in classroom instruction or management? (For instance, are data generated by such systems used by the instructor or the institution for any purposes? Are features of the system overlooked or under-utilized?)
3. How does developmental writing instruction structured around mechanized tools for feedback influence student and instructor views of what writing is and what writing makes possible?
 - a. How do students in this classroom context describe their expectations of college writing instruction, and how does the course structure and incorporation of technology align with those goals or ideas?
 - b. How do students see instructional technologies used in the classroom as contributing to their learning or expectations about what counts as “correct” or as holding value in the college writing classroom?
 - c. How do instructors describe their goals for the course and for student development of writing? More specifically, how do those goals position standard language usage and conventions and how do they consider the role of the classroom technology in instruction?

These guiding questions reflect the long-standing tensions in literacy remediation practices between composition instruction that prioritizes mastery of the conventions of edited Standard English and instruction that instead emphasizes rhetorical awareness and that recognizes the ways that reading, writing, and speaking are dependent on social and cultural contexts. In taking up these questions, this study contributes a detailed exploration of how the turn to technology that is advocated for college remediation by some stakeholders in higher education influences the instruction and subsequent beliefs about writing for those students considered under-prepared for postsecondary study.

OVERVIEW OF CHAPTERS

Each chapter of this dissertation project contributes to a new construction of how we might see the role of automated instructional systems in college basic writing. Across the chapters, I return to the ideas of authority, constraint, and possibility as I consider the motivating forces that have propelled computer-based instruction in these contexts. From this opening chapter's discussion of current policy and research exigencies for this study, this project moves from historical inquiry to contemporary case-study analysis in the following order:

Chapter Two turns to historical consideration of the intersection of classroom technologies and postsecondary remediation through an examination of the journal *College English* from its beginning in the 1930s. This chapter presents the first findings of the dissertation, arguing that while education technologies are commonly promoted as a “new” answer in remedial classroom contexts, historical analysis shows a long pattern of untroubled belief in technologies as classroom intervention for under-prepared students without producing any broad shifts in patterns of student preparedness.

Chapter Three pivots toward a contemporary case study of the role of automated instructional systems in college basic writing courses. The chapter offers an overview of the case study component of this dissertation, describing the rationale for this approach in the project, the procedures for selecting the technology system considered, the site where it was in use, and the instructor and student participants. The chapter also discusses procedures for data collection and analysis and considers limitations of the work.

Chapter Four presents the first findings from the contemporary case study and argues that automated instructional technologies assume broad authority over both students and teachers in classrooms due in part to the swiftness of automated scoring and feedback and to the inflexibility of how the system processes grammatical and rhetorical conventions. The chapter focuses on grammar instruction, long a central concern in discussions of college basic writing, and argues that the instructional technology has the effect of making grammar instruction a central feature of the course even as instructors say that is not their goal. The chapter also shows that while efficiency is a central goal for the adoption of automated tools in remedial classrooms, instructors see the system as consuming more time and attention than other forms of instruction.

Chapter Five examines the role of automated writing evaluation technologies in the basic writing classroom and argues that the technology system overall operates to restrict student understanding of the writing construct in this critical first introduction to academic writing. This chapter suggests that the reach of instructional technologies in writing classrooms extends well beyond narrow review of grammatical rules and conventions to influence—and restrict—student and instructor notions of effective writing as writing that primarily adheres to standard language conventions and specific organizational patterns.

Chapter Six explores the implications of this study in three areas: classroom practice, broader policy considerations, and directions for future research.

CHAPTER TWO

Composition, Remediation, and the Long Search for the Faster Fix

INTRODUCTION

Reporting to federal education officials in 1968 about his early work on an automated system to grade and respond to student writing, Ellis Batten “Bo” Page envisioned a “proper program for correction of essays” (p. 11) that would reduce instructor time spent “in the teaching of elementary writing skills and the judging of the appropriateness of the student’s word usage, determining errors in declension, noting spelling errors, and so on” (p. 151). The goal, in short, was to help students who struggled with writing improve through more practice and swifter feedback. The focus of that feedback, as examples in the report made clear, focused tightly on repairing features of student writing that strayed from Standard English conventions and, importantly, that a computer system could be trained to count and comment upon.

In a sample essay that described a broken television as *busted*, for instance, the feedback system that Page developed in the mid-1960s zeroed in on the informal language choice with the automated response: “Do you really think the past participle of ‘break’ is ‘busted’, or were you just careless?” (Page & Paulus, 1968, p. 158).

When the term *somewheres* appeared on the sample essay instead of *somewhere*, the system weighed in with pre-programmed correction and commentary:

“*Somewheres* is an example of poor speech habits showing in your writing. The word should be pronounced and spelled without the final *s*” (p. 158).

In other places, the system targeted potential concerns about punctuation:

“I noticed that you didn’t use very many commas. Did you separate items in a series by commas, use commas in compound sentences, use commas after introductory phrases? Perhaps you had better go back to your essay and check those things” (p. 159).

These early examples of automated responses to student writing, included in Page’s 194-page report, “The Analysis of Essays by Computers,” to what was then the U.S. Department of Health, Education, and Welfare, offer a glimpse into the development of the modern educational technology market and the keen interest on the part of policymakers and researchers in how advances in automation might be harnessed for classroom instruction. More broadly, these first snippets of computerized evaluation of writing reflect a historical pattern that both preceded Page’s work, and which continues today, in which new instructional technologies become mechanisms for framing the teaching of writing as the teaching of grammar, organization, and usage issues in ways that can be efficiently measured as “right” or “wrong.”

As explored in this chapter, English and composition studies since the early twentieth century have sought ways to make interventions for underprepared college students speedier, less costly, or both—and the introduction of instructional technologies ranging from workbook drills to assessment scales to Page’s computerized essay evaluation system repeatedly has been held up as a solution. This focus on efficiency and the employment of systematic tools to achieve swifter results, in turn, can be seen reinforcing the idea that writing instruction in courses designated as remedial or

developmental should focus foremost on mastery of standard language conventions rather than exploration of language or building rhetorical awareness. This chapter draws from original documents, education and curricular histories, and a review of the journal *College English* since its founding in 1939 to examine how the impulse toward efficiency and instruction in mechanical correctness has led, historically and today, to a largely uncritical belief among institutional leaders, policy makers, and some classroom educators that automated technologies might offer a silver bullet to the problem of postsecondary literacy remediation.

It is important to note at the outset: that bullet has never quite hit the mark. Educational researcher Hunter Boylan, whose work focuses on the history of college developmental studies, has dryly written that underprepared students “like the biblical poor” will always be with us (2003, p.3), and the literacy scholar Mike Rose (1985) has challenged the often-repeated idea that any single intervention or program will reverse the long patterns of poverty, poor schooling, and other systemic social patterns that exist behind college remediation. Yet the pursuit of a faster, more systematic solution to college remediation persists, and in the historical intersection of composition, remediation, and technology, we can see the early foundation for automated instructional tools to be embraced as part of that solution. To that end, this chapter examines three historical turns that frame today’s discussions about what instructional and curricular role educational technologies should play in college remediation:

- First, this chapter explores the powerful push, starting at the turn of the twentieth century, to make American schools more efficient and the particular conundrum that composition posed for efficiency advocates focused on U.S. education. This

section examines the development of early systems for evaluating and measuring writing, such as the Thorndike-Hillegas scales for writing quality introduced to educators in 1912, and suggests ways that these early assessment technologies shaped beliefs about efficiency and achievement in college writing.

- Next, the chapter demonstrates that while scholars and instructors in the fields of college English and composition have long resisted efforts to systematize writing instruction on many fronts, they also have prioritized the mastery of standard language conventions in the context of remedial coursework and when faced with broad demographic shifts in student populations. As illustration, this section examines how writing courses for students serving in or returning from the military in the years surrounding World War II were streamlined to emphasize efficiency and workforce preparation and, in doing so, established a model for basic writing that persisted beyond wartime.
- Finally, the chapter explores how various technologies introduced to support composition instruction have reinforced narrow beliefs about “right” and “wrong” practices in writing, reading, and speaking, particularly in the context of basic college writing classes. Here, the chapter explores the introduction of a range of technical interventions, including “programmed learning” systems or “teaching machines” developed in the mid-twentieth century, and argues that these early iterations of educational technology preview in many ways current beliefs in computerized systems to speed instruction in basic writing and literacy courses.

Together, these pressures toward efficiency and associated technological interventions help reinforce the idea that the instructional priority for underprepared

students should be swift mastery of the conventions of edited Standard English. Rather than offering supports for these students to consider rhetorical ideas about audience, purpose, or elements of persuasion in academic writing, automated interventions in remedial contexts instead too often can be seen as reinforcing beliefs about “good” writing as “correct” writing and the broader idea that underprepared students are not yet ready for broader investigation of language and writing.

This chapter’s historical investigation of efficiency pressures in basic writing instruction also begins to illustrate the themes of constraint, authority, and possibility that frame the broader project study. The pivotal moments from the early- and mid-twentieth century that this chapter brings together show how overlapping beliefs in the power of technology, the importance of standard language instruction, and the primacy of efficiency in schooling have contributed to what, too often, is a narrow view that constrains possibilities for a robust exploration of writing and rhetorical awareness in college basic writing. Meanwhile, curricular and instructional decisions that reflected the priorities of efficiency and mastery of the conventions of Standard English can be seen exerting strict authority over what underprepared students encountered in writing classrooms.

A closer look, for instance, just at the automated feedback examples from Page’s 1968 report helps to illustrate these tensions as one critical turn for educational technology. Page, a former high school English teacher who later earned a doctorate in educational psychology, led development of the earliest automated essay scoring systems while on the faculty at the University of Connecticut at Storrs in the mid-1960s. Drawing from advancements in technology and computational linguistics, Page sought to create a

system that would, foremost, offer school administrators and the educational measurement experts a way to score large numbers of student essays more rapidly and more uniformly than was possible with the use of human readers.

But Page also imagined that such a system could offer swift feedback to students at the classroom level for the more general purpose of writing practice and improvement—a claim that developers of automated writing evaluation systems still propose today (e.g. Shermis, Berstein, & Bursky, 2013). As shown in the opening of this chapter, by the late 1960s, Page’s system could generate an overall score and scripted feedback comments on student essays based on specific word, usage, or phrase recognition. In the 1968 federal report, Page and his co-author, a federal education researcher named Dieter Paulus, describe the automated feedback loop in this way:

The program takes the numerical grade and selects an appropriate comment from a list of comments. If, for example, the grade is quite high, the computer writes, "I think that you did quite well. Keep up the good work!" On the other hand, a very low grade calls for the response, ‘I don't think that you did at all well. Are you taking this assignment seriously?’ Intermediate grades call for other comments. (Incidentally, if a student tries to fool the computer and types nothing but nonsense, the computer responds, ‘Stop wasting my time! If you don't stop playing around I will report you to your teacher’.) These comments are used instead of numerical scores because they are presumably more meaningful to the student than, say, the number 2.8634. (Page & Paulus, 1968, p. 153)

The automated responses, as recounted here and shown above, are notable for the way they attach judgment not just to perceived “error” or informal language usage but, more broadly, to the writer’s work ethic or broader language use: *Were you just being careless? Are you taking this assignment seriously? Poor speech habits [are] showing up in your writing.* In this way, the critique in the automated feedback attaches not merely to the student work but directly to the student writer in a response system that offers no

space for dialogue about how or why the writer might have made the usage choices reflected in the work.

What emerges in this early example of automated writing evaluation is a view of writing in which notions of correctness are paramount and the ability to detect, measure, and count error becomes (quite literally) the sum of writing instruction. Moreover, the appearance of error or informal usage is identified not only as reflecting flaws in writing or language use but is conflated to personal flaw as well. Yet despite these constraints, the pull of these kinds of prescriptive forces in writing instruction can exert a strong hold, particularly in the context of basic college writing classes, from the early twentieth century; indeed, Page's system fits within a long line of various efforts to use technology to standardize and speed writing instruction. As I explore next, this impulse begins with the rise of industrial manufacturing and the associated pressures for more efficient production—both of goods and materials and of labor.

EFFICIENCY EXPERTS AND THE CONUNDRUM OF COMPOSITION

The start of the twentieth century coincided with the rise of industrial manufacturing and, by extension, an intense focus on the ways that business-based values and production methods might prove useful beyond the boardroom or the factory floor. The same specialists who sought to create greater efficiencies in the mechanical production of goods also began to turn their attention to the one social institution that they saw as having perhaps the clearest connection to workforce development: the school. And what they saw in the system of education that had developed in the United States across the prior century was, in their estimation, decidedly inefficient in terms of time, costs, and worker preparation (Callahan, 1962; Kliebard, 2004; Schiro, 2007).

In 1913, the same year that Henry Ford installed the first automobile assembly line—reducing the time that it took to manufacture the Model T from more than 12 hours to fewer than three—the curriculum scholar Franklin Bobbitt issued a detailed call for educators to adopt scientific techniques of measurement and production that were steadily gaining force in America’s factories and economic centers. Bobbitt, drawing directly from Frederick Winslow Taylor’s principles of scientific management for industrial production, critiques education as “rather backward” (1913, p. 8) in comparison with U.S. business and industry. Bobbitt saw little distinction between industry and education, calling the latter “a shaping process as much as the manufacture of steel rails” (1913, p. 11). He explicitly framed educational gains as measurable goods that could be delivered more quickly and more cheaply through an emphasis on mastering discrete, isolated skills that would—like parts along an automobile production line—eventually add up to a unified, finished product.

Bobbitt, whose work at the University of Chicago was a critical force in shaping education in the first half of the century, was far from alone in what the historian Raymond Callahan (1962) would later call the “cult of efficiency” that defined American schooling in this period. Stanford professor Ellwood P. Cubberley draws explicit connections between automated production systems and schooling in his description of schools as factories where “the raw products (children) are to be shaped and fashioned into products to meet the various demands of life” (1916, p. 338). To do this work, and to determine if schools were doing it well, Cubberley argues that educators will need “good tools, specialized machinery, [and] continuous measurement of production to see if it going according to specifications” (1916, p. 338). Cubberley’s production metaphor for

education was perhaps the most bluntly drawn, and it closely echoed the ideas about the purpose for and existing problems in U.S. schooling that would persist across the century.

As efficiency specialists trained their focus on the education system, two common critiques emerged. The first held that the school curriculum was not preparing students precisely enough for their likely economic roles later in life. In this view, students should study only subjects and material that they would need for their later roles in the workforce—or, as Bobbitt writes in 1912, schools should, “Educate the individual according to his capabilities” (p. 269). The second critique by social efficiency advocates held that in order better perform this central role of workforce preparation, schools should be more systematic in measuring student and teacher performance. To address these perceived gaps, the efficiency experts pushed for lessons and training that could be efficiently delivered and precisely measured in order to determine whether schools were meeting the goal of preparing students for economic roles. This focus on measurement and assessment led to the steady expansion of large-scale, objective tests to rank and sort students (Callahan, 1962; Elliot, 2005; Kliebard, 2004; Soliday, 2002)—one early form of education technology in American schooling.

Yet across this push for greater scientific management and measurement in schooling, there was one central subject—composition—that confounded the efficiency specialists. Both educators and business leaders viewed skill in writing as an important trait for students as they prepared to enter a range of future economic roles. But how to teach and measure writing in schools proved more complicated than fixing standards for disciplines such as math or within the sciences, with the more clear-cut formulas and processes of those subjects.

In his 1913 textbook on curriculum, Bobbitt pushes for standardized lessons in the English classroom on such topics as spelling and handwriting, advocating the use of grammar drills to break down instruction across disciplines into distinct, measurable units. But Bobbitt also puzzles over how to fully capture the worth of writing in a scientific way, writing that, “The scale for measuring merit in composition appears to be a more difficult thing to devise than the scales for the other subjects discussed” (1913, p. 42). Still, the complication did not deter Bobbitt in his argument that the English curriculum should develop more systematic ways to measure and evaluate student writing. “Just as the invention of the foot-ruler or some analogous linear measure is necessary before we can have absolute standards for the manufacture of steel rails,” Bobbitt writes, “so in composition ability we must have definite scales of measurement established before we can set up the standards to aim in the shaping of the product” (1913, p. 42). For the early efficiency advocates, the question simply became one of *how* to measure “good writing”—and if scales and rulers did not easily map onto composition instruction, the efficiency experts would make instruction fit the scale.

Early calls to systematically evaluate student writing, like Bobbitt’s in 1913, shaped beliefs about the possible instructional roles for emerging technology across the decades that followed. Leaders in the emerging field of educational testing, in particular, fixed their attention on the question of how to make writing instruction more consistent and its outcomes more standard. One central figure in this effort was Columbia University’s Edward L. Thorndike, a dominant player in educational measurement whose work led to the multiple-choice intelligence tests used by the U.S. military for enlisted soldiers. Thorndike, whose focus on measurement is succinctly reflected in his onetime

proclamation that, “Whatever exists at all exists in some amount” (Cremin, 1961, p. 185), argued that language and writing instruction should emphasize drill and practice on topics related to grammar, mechanics, and usage—discrete units or concepts about language that could be tabulated as correct or incorrect, in the view of the efficiency experts, without concern for broader context or application.

Thorndike, along with graduate student Milo B. Hillegas, developed one of the earliest technologies for swift, systematic evaluation of student writing, what came to be known as the Thorndike-Hillegas Scale for the Measurement of Quality in English Composition by Young People (Hillegas, 1912). This early scale system for writing evaluation provided English instructors with direct writing samples that modeled scoring ranges between 0 and 1000. The scale was intended to promote more consistent standards in writing instruction, but fixing those standards for writing was a complicated endeavor.

What took precedent was what could be counted. Hillegas writes in 1912 that, “Merit in English writing is complex. Judges are influenced by form and by content. Such factors of form as spelling, punctuation, capitalization, and the like are subject to definite rules. Form is, therefore, more easily measured than content” (p. 339). Under the Thorndike-Hillegas scale, writing samples that received the highest scores featured an exceedingly formal use of Standard English and, as Bizzell (1987) notes, displayed familiarity with the Western canon and an ability to convey abstract thought. Evaluators, for instance, gave a score of 937 to the three-paragraph passage, “A Foreigner’s Tribute to Joan of Arc,” which opens with a broad, historical flourish:

Joan of Arc, worn out by the suffering that was thrust upon her, nevertheless appeared with a brave mien before the Bishop of Beauvais. She knew, had always known that she must die when her mission was fulfilled and death held no terrors for her. (Hillegas, 1912, p. 338)

Writing at the low end of the scale, meanwhile, was marked by repeated instances of non-standard language use as well as highly personal narratives. Evaluators gave a score of zero to the following passage, which reads in full:

DEAR SIR: I write to say that it aint a square deal Schools is I say they is I went to a school. red and gree green and brown aint it hito bit I say he don't know his business not today nor yeaterday and you know it and I want Jennie to get me out. (Hillegas, 1912, p. 335; all spelling and punctuation true to original)

In the view of the efficiency advocates, this kind of early evaluation technology marked a significant step toward making composition instruction and grading more uniform. This system, though, also reinforced cultural assumptions about language use that would continue to shape English education, especially curricular decisions for students considered to be underprepared. Today, it also points to some of the ways that both the promise and tensions of educational technologies for writing construction today are not new. Indeed, in key ways the samples from the Thorndike-Hillegas scales preview the same notions about “good” writing that would be reflected more than five decades later when Ellis Page introduced his computerized program for ranking and responding to writing. In each system, successful writing is identified as such based on patterns of correctness and form while poor writing is marked predominantly by non-standard usage and errors in conventions of edited Standard English. Just as the low-scoring sample from the Thorndike-Hillegas scale uses the word *ain't*, for instance, and includes repeated run-on sentences, so too does the sample writing included in Page's 1968 report on his automated feedback program.

Further, the examples of problematic writing in each instance are not drawn from actual student work but from the raters' own ideas about what constituted “bad” writing.

As Hillegas (1912) discusses when introducing and explaining the Thorndike-Hillegas scale, the system was structured on the evaluation of outside readers—some 400 judges, mostly male English professors or other academics. While Thorndike and Hillegas were seeking to create a more objective system for measuring writing, and although they collected some 7,000 examples of student work, the examples from the very low end of the scale actually were actually artificial samples, composed by academic reader-evaluators to ensure that the scale would have sufficient examples of poor composition.

In his account of the development of the system, Hillegas explains, “In order that the samples at the extreme ends of the scale might be measured, it was necessary to supply some artificial samples. The poorest of these were conscious attempts by adults to write very poor English” (1912, p. 352). (Examples from the high end of the scales are noted as being written by college freshmen or upper-level high school students.) What the Thorndike-Hillegas system fixed in place, then, were the ideological beliefs on the part of educated, professional writers that reflect their ideas not just about “bad” writing but about “bad” writers. This same approach to systematizing what counts as correct in writing appears again in Page’s system fifty years later: the writing sample included in the 1968 report was, in fact, generated by the researchers in order to demonstrate how the system would respond to “taboo words” such as *ain’t* or *busted* as well as “vulgar idioms, such as ‘somewheres’ or ‘that there’” (p. 154).

Intended to make writing instruction and evaluation more objective and more efficient, early evaluation technologies in this way reveal ideologies about “correct” writing as reflected in the developers’ own beliefs about language and enforced by the standardized assessment method. This close focus on tabulation of error and

measurement of form that found favor with the early social efficiency theorists would cast a long shadow on the development of college remediation programs in the decades that followed, particularly as English departments faced demographic shifts in higher education such as the influx of returning soldiers under the G.I. Bill in the 1940s or rising enrollments among African-American students in the years following the Civil Rights movement. In the next section, a review of the journal *College English* illustrates tensions in the fields of English and composition to, at once, resist efforts to systematize and automate writing instruction and streamline instruction for students that instructors themselves saw as unready for college studies.

“WHEREBY WE CAN JUDGE THEM TO BE WRONG”

From Early Remedial Programs, Instruction Framed by Correctness and Efficiency

Within college English departments, many instructors and scholars resisted the push for greater instructional efficiencies and more standardized evaluation that stemmed from the science-driven models of schooling that dominated the early twentieth century. Among the prominent voices against efforts to systematize writing instruction and evaluation was the University of Michigan’s Fred Newton Scott, who rejected the timed written entrance examination that Harvard initiated in 1874 as a false measure that was likely to produce poor student writing (Bizzell, 1987). The formation in 1911 of the National Council of Teachers of English (NCTE), with Scott as the first president, likewise was a response to efficiency-minded administrators who sought to shift English education increasingly toward basic skills instruction (Nystrand, 1992). The newly formed NCTE, working in concert with the National Education Association, issued a report in 1917 that directly opposed approaches to education that reduced writing to

mastery of a set of measurable skills in mechanics and usage. Pushing for a broader conceptualization of English education, NCTE and NEA leaders argue:

It is a mistake to regard English as merely a formal subject. The implication of such a view is that skill in the use and interpretation of symbols is the sole end sought and that this may be attained by drills upon technique quite apart from interesting or valuable content. (Hosic, 1917, p. 26).

Pushback against the influence of social efficiency theories on writing instruction also found voice in one of college composition's earliest journals, *College English*, an NCTE-sponsored publication that grew out of the organization's first publication, the *English Journal*. A review of *College English*⁶ from its start in 1939 shows its authors—primarily college English scholars, instructors, and administrators—advocating for depth and breadth in the study of literature and the development of student writing. This pattern is reflected in the journal across the twentieth century and through today; however, the discussion here most closely examines the years between 1939 to 1969. I focus on this period for two reasons. These three decades include the influx to college campuses of active duty and returning soldiers in the years surrounding World War II, a significant

⁶ As part of this project's historical analysis, I reviewed the journal *College English* from its start in October 1939 through 2014, when this study commenced. No disciplinary journal can stand as a universal reflection of a field, but *College English* offers a relevant mapping of the concerns, issues, and ideas about college English and writing instruction during twentieth century. Importantly, *College English* also is in existence for more than a decade before *College Composition and Communication* is launched in 1950, allowing for consideration of how remedial coursework was framed during the period surrounding World War II—a critical moment of demographic shift in higher education, as this chapter discusses. The archives of *College English* are fully digitized, and this chapter draws from a two-tiered analysis of that archive. I began my analysis with a broad search for the terms *remedial*, *remediation*, *basic writing*, *developmental*, and *technology*. I also searched for the specific terms *programmed instruction*, *programmed learning*, and *teaching machine*. Within each issue of the journal, I also surveyed the Table of Contents to consider articles of potential relevance. Articles that dealt exclusively with teaching literature in were not considered for this review. This review did include articles addressing issues such as the teaching of grammar or composition mechanics because those pedagogical issues are (and remain) closely entwined with college basic writing. In all, the discussion in this chapter draws from 132 articles across 77 volumes of *College English*.

demographic shift that structures remedial coursework around the priorities of efficiency and workforce development. This period also encompasses the arrival of “programmed learning” systems or so-called “teaching machines” that can be seen presaging today’s discussions about instructional technologies and college remediation.

Across the journal’s history, writing instructors and scholars are adamant about the importance of teaching college composition in ways that emphasize broad exploration of language and ideas. Writing in 1942, I. Colodny, an instructor at Los Angeles City College, laments in the journal that, “We teach too many things in too short a time. No one needs to be reminded that learning is a slow process” (p. 753). In that same year, writing instructor Nick Aaron Ford, from Oklahoma’s Langston University, pushes back against the grammar workbook—one early technology to systematize the teaching of writing—arguing that it was created only to “make the teaching of unduly large classes permissible without too much discomfort to the overloaded teacher. If all students have the same blanks to fill, with the same meaningless (to them) words and phrases, they can likewise be assigned meaningless grades by the teacher’s nonchalant use of the answer key” (p. 65). These arguments for deep investigation of language and rhetorical awareness echo across the history of *College English* and position the field in opposition to many of the testing- and outcomes-driven instructional methods that opened the door to new educational technologies promoted as saving instructional time and costs.

Yet the history of college composition that is reflected in *College English* also shows a separate impulse: when faced with the question of how to teach underprepared students or manage courses designated as remedial, writing instructors and scholars turn to curriculum choices that emphasize efficiency, workforce preparation, and narrow

mastery of mechanical writing skills. Particularly as remediation programs take shape in colleges and universities during the 1930s and 1940s, concerns about time, costs, and future employment override broader goals of writing instruction for instructors working with students considered unready for college studies or students viewed as non-traditional entrants to higher education, usually based on race, ethnicity, or social class.

As discussed in the first chapter, complaints about underprepared students have a long history in higher education, and that is reflected in early English education publications as well. In the first edition of *English Journal*, the NCTE publication that launched *College English*, Edwin M. Hopkins of the University of Kansas laments in 1912 the “thousands of pupils” emerging from secondary schools “in a more or less damaged linguistic condition, incapable of meeting only the simplest, practical demand upon their powers of expression” (p. 1). In a critique that raises the very same concerns that policymakers would level a century later in moving to eliminate or curtail remedial course offerings, Hopkins argues, “Much money is spent, valuable teachers are worn out at an inhumanly rapid rate, and results are inadequate or wholly lacking. From any point of view—that of taxpayer, teacher, or pupil—such a situation is intolerable” (p. 1). This view of underprepared students is far from universal in composition as the early history of the field is reflected in *College English*. But its persistent reappearance, I argue, can be seen driving efforts within English departments to speed and systematize basic writing.

Concerns about wasted time and money related to remedial courses or remedial students surface in the pages of *College English*, just as they have in broader policy discussions about higher education, and they are consistently linked to concerns about standardization of language and the future employability of students who arrive at college

academically underprepared. The solution that is repeatedly raised by instructors and scholars writing in *College English* during the first half of the twentieth century, is to respond to struggling writers with measurable systems of instruction that are focused on mastery of standard language conventions—an open door to some of the early incarnations of today’s educational technologies.

Writing in the second edition of *College English* in 1939, George S. Wykoff, an assistant professor and chair of first-year composition at Purdue University, bluntly charges that students could not become better writers without instruction focusing on mechanical correctness. Complaining about rising remediation rates in U.S. colleges, Wykoff argues that the response should be a greater emphasis on the conventions of Standard English: “If we are not to teach grammar, what are we to teach, and just how are we to teach students to write correctly?” (1939, p. 144). Echoing today’s discussions about basic skills instruction and educational technology, Wykoff argues for a more efficient way to measure the outcomes of remedial coursework and complains that, too often, the existing approaches of composition instructors “are not scientific in a scientifically-minded world, where, if things go wrong there must be some principles whereby we can judge them to be wrong” (1939, p. 144).

Similar themes, emphasizing scientific measurement and basic skills instruction for underprepared students, would resurface in ways both subtle and direct as English departments worked to form remedial programs in the first half of the twentieth century. Writing in December 1942, Myrtle Pihlman, an assistant English professor at the University of Tennessee, advocates the use of one early instructional technology—the dictation drill—for students who had failed her school’s entry-level composition class.

Pihlman offers an approving nod to the effort to help underprepared students meet the requirements of college writing, writing that, “This preoccupation with substandard students is justified by the philosophy that a state university should serve all its people to the best of its ability” (p. 188). But she holds fast to the idea that this work might somehow be done more swiftly. The advantage of the dictation drill, Pihlman concludes after tracking one year’s entering class, is that, “time saved by using a highly efficient drill can be employed in correcting wrong attitudes and supplementing meager backgrounds” (p. 190).

In their very language, Wykoff and Pihlman in these examples reveal closely held connections between perceived error in writing, broader critiques of the individual speakers or writers as unfit for full access to higher education, and a belief in the power of systematized instruction to correct those patterns. Wykoff explicitly links direct grammar instruction to a kind of *scientific* approach to English instruction and, then, suggests that a student’s inability to acquire the codes of Standard English is reason to “judge them to be wrong.” The same language echoes exactly in Pihlman’s assessment of the remedial students at her institution. While she positions herself as humanely seeking ways to help the students, the students themselves are positioned as individually flawed—with *wrong attitudes* and *meager backgrounds*—as judged by their performance on grammar dictation drills. As with Page’s automated feedback system or the measuring scale devised by Thorndike and Hillegas, there is no space for consideration of the ways that error itself is socially constructed or the language histories of these students, only the notion that they, and their writing, are somehow *wrong*.

The effort to find a faster fix to the perceived problem of remediation finds frequent voice in *College English* during this same period. W. Alan Grove, an instructor who oversaw the remedial English courses at Miami University, writes in 1939 that one central concern of the college in forming the remedial writing courses was to prioritize “flexible, time-saving schemes” such as having students check each others’ assignments, using workbooks for instruction, and allowing instructors to hold group conferences instead of meeting with individual students. Grove’s account also anticipates tensions over what role the instructor *should* play in this more efficient approach to writing instruction. “And the instructor, how does he profit?” Grove writes, proposing one solution: to allow instructors to add additional material not printed in the workbook. In this way, Grove writes, “no longer is there the danger that [the instructor] might seem to be an automaton, reiterating mechanically the gist of the printed page” (1939, p. 235).

Grove’s writing anticipates concerns that continue to play out, even today, about the role for instructors in the classroom when technologies—from workbooks to dictation drills to online assessments—play a central role in basic writing classes. A more common concern in this period, though, was simply how instructors could efficiently manage the needs of underprepared students within the context of full class sections.

“What to do for these laggard students?” ask McCloskey and Hornstein (1950, p. 331), both professors with New York University’s Washington Square College of Arts and Science who, in response, create a system of “booster sections” (1950, p. 333) for drills in grammar and vocabulary intended to supplement regular writing instruction for underprepared students. Borrowing the medical terms of “boosters” and “treatment,” the NYU instructors wrestle with how the cure of remediation might still be delivered more

swiftly. The authors note that, “As may be inferred, the treatment is made especially difficult from an administrative viewpoint because the lowest group, not being homogeneous, cannot be taught in large sections” (1950, p. 336). Likewise, writing about the development of writing laboratories on college campuses, Moore (1950) describes writing labs, which were able to accommodate more students, as “more economical than the [writing] clinic, in that one instructor in a given hour can work with ten or twenty students where the clinician can scarcely work with more than four at most” (p. 392).

As composition instructors sought greater scale and efficiencies in the context of remedial coursework, they also turned in some instances to assessment and standardized testing as one way to gauge the success of remedial interventions in writing instruction—even as teachers resisted large-scale testing in traditional college English courses. The University of Missouri’s Charles Boyd Guest argues in 1946 that systematic assessments could help blunt criticism about the college’s efforts to help underprepared students. “Although English teachers have every right to resent being singled out for the blame which ought to be generally distributed, they can find small comfort in merely nursing the wounds inflicted upon their sensibilities,” Guest writes, adding: “Data can be compiled by testing an adequate sampling of students and can be analyzed to give a specific basis for establishing minimum standard” (Guest & Randel, 1946, pp. 291-292). Guest frames assessment in remedial coursework as one way to gather and disseminate specific data to show the gains students make and to answer critics of the programs. It is an idea that echoes now in arguments about the use of classroom technology systems, although perhaps not in as memorable a way as this sharp rejoinder from Guest: “We are

eternally being put on the defensive and need weapons less feeble than tart replies” (1946, p. 292).

In advocating for more systematic instruction and wider use of testing in remedial coursework, instructors and scholars drew an uneasy line between their pedagogical approach for working with strong writers and traditional students and those students less prepared for college studies. Writing in 1950, F.C. Osenburg, a composition instructor at Arizona State College, unleashed a stark attack on the steady expansion of standardized grammar tests as a tool for writing instruction:

This sort of test is supposed to be useful in diagnosing “mechanical” weaknesses and in measuring progress in the development of a capacity to employ the written language, and to do these with great scientific accuracy. . . . Yet this is almost as much of an imposition upon teachers and students as the hair-tonic-cures and furniture-polish-panaceas of the old traveling medicine shows were upon rural populations, for at best the majority of tests do very poorly what they are advertised to do, and at worst actually promote false conceptions about the nature of writing. (1950, p. 1999)

Osenburg writes that, “What is most needed by students who are learning to write is practice at writing, and the best way of evaluating writing it is to read it” (p. 280). But he makes a sharp turn when he considers instruction in the context of basic writing courses. Such grammar testing, he concedes, could be useful with “poor writers” as a way to target instruction “so that if specific corrective measures can be applied to the most serious weaknesses, better and quicker results can be produced than if general corrective measures are applied to everything willy-nilly” (1950, p. 281).

This split in thinking about what writing instruction should be in traditional composition courses and how it should be framed in remedial courses reflects a belief that underprepared students are somehow unready or unable to explore academic writing

until they have mastered basic elements of grammar and mechanics. And this pattern of thought has surfaced most clearly amid demographic shifts in higher education that have brought larger numbers of students seen as “new” in some way—usually so designated because of economic class or race or ethnic background. (This pattern has been documented by scholars across higher education and composition; here, I consider and seek to extend the work of Fox, 1999; Horner, 1999; Prendergast, 2003; Ritter, 2009; Shaughnessy, 1977.) One notable demographic shift in the past century—the influx of returning and active duty soldiers to U.S. colleges in the years surrounding World War II—offers a critical point to explore how responses to the “new student” prioritized basic skills, efficient coursework, and worker preparation for students considered not just underprepared for college studies but somehow as firmly set apart from that work.

“War English” and Remediation as Workforce Development

Responding to concerns from U.S. military leaders about the academic readiness of soldiers in the years between World War I and World War II, English departments across the country developed courses labeled as “War English” or “College Military Programs” intended to help underprepared students who were entering the military—and, later, soldiers returning from overseas—quickly master basic elements of college-level writing. As with other remedial courses developed in the first half of the twentieth century, these programs were largely driven by concerns about student mastery of grammar and mechanics, and the courses featured compressed writing assignments focused on technical correctness and organization. The expansion of college remediation that corresponds with the war years and the federal G.I. Bill has been documented by composition scholars such as Mary Soliday (2002), Jane Stanley (2010), and is closely

examined in Thomas Masters' (2004) text *Practicing Writing: The Postwar Discourse of Freshman English*. Here, I extend their discussions to consider the ways that pressures for greater efficiencies in these courses built a model for basic writing that persists today and would open the door to the deployment of educational technologies in these contexts.

As courses for soldier-students developed in the early 1940s, the central goal was practical preparation for the workforce, something that instructors candidly discuss in their writings in *College English*. Composition instructor Walter Pennington, writing in 1945, describes his veteran students as enrolling in college only for the most practical reasons: "to learn some trade so that they may start again in life on a higher plane that when the war interrupted their peacetime way of life" (p. 38). And Pennington considers the proper response to be one framed by mechanistic notions of writing instruction that might mirror the students' (presumed) vocational futures: "I reasoned like this: These men are here to learn automobile mechanics, diesel-engine operation, something of the sort. Will they be receptive in their attitude toward the offerings of the English Department? I was agreeably surprised to find that they buckled right down to work as though the fundamentals of English were the fundamentals of practical electricity" (p. 38). This notion that military students were not only unprepared for college students but, more broadly, were uninterested in broader pursuit of higher education begins to reshape ideas about remedial composition courses to reflect primarily concerns about technical correctness and the speed at which such courses could be completed.

In *College English's* own survey of colleges and universities working with former or current soldiers in 1945, instructors discuss modifications of "refresher" courses in composition and reading to emphasize concerns about time spent to review basic skills.

Lisle A. Rose with the Michigan College of Mining and Technology reports that “We have speeded up our presentation of the principles of organizing simple technical compositions; we have stressed even more than usual the purely conventional nature of many approved grammatical practices ... We have begun, earlier in Freshman English than usual, to stress masculine tactfulness in organization and phrasing” (“English for Ex-Service Personnel,” 1945, p. 209). And in some instances, writing instructors claim that soldier students prefer this accelerated approach to college writing. Earl Hilton, writing in 1947, argues that efforts to reduce time spent in the classroom reflected the practical concerns of older students who sought to move quickly to full-time employment after serving in the military. This student’s aim, Hilton argues, “is to prepare himself as quickly as possible to earn a living, possibly to ‘get ahead in the world’ ... They might like to learn more about themselves and about the more remote parts of their environment in time and space, [but] they feel that they must now confine themselves to the essentials in education, defining ‘essentials’ in vocational terms” (pp. 156-157).

The drive to make these wartime courses faster and more practical led instructors, in some instances, to suggest specific technological interventions that they saw as having connection to military service—and that could speed and enhance instructional methods. Stallman (1943) proposes expanding use of a slide projector technology, the delineascope, in first-year writing courses, suggesting it would allow students to see other essays written by classmates and help to identify errors in the compositions through the projection system. Stallman writes: “Now that so many universities are training Army and Navy students in technical English, it seems timely to point out that a most effective method of teaching freshman English is the visual method of the delineascope.

...Surprisingly few instructors have experimented with it. Yet, as a supplement to class routine, the use of the delinescope suggests almost unlimited possibility” (1943, p. 39). This endorsement of the then-new slide technology reflects not only the idea of military students as restricted primarily to “technical” English—a common term to refer to remedial courses in this period—but it also reflects an uncritical belief in the “unlimited possibility” of a technology that would allow students to identify mechanical errors in their own work and in the work of classmates.

At points, writing teachers and scholars express keen interest in helping military students adjust to college and prepare broadly for life and studies beyond the “War English” classes. Kenneth Kuhn, an instructor with North Dakota State College, quoted in a 1945 survey by *College English* on wartime courses, argues that many of the wartime modifications to English courses emphasized “social and economic material” considered relevant to preparation of students who would become soldiers. Kuhn raises doubt about how successful a purely technical writing course will be for long-term preparation, writing, “In the end, successful education of this crucial group of students will depend upon the warmth of the humanity, the alertness to the world of today, and the usable knowledge of literature and history in their teachers” (“English for Ex-Service Personnel,” 1945, p. 211). Yet other instructors express frank doubt about the interest of military students to pursue more advanced studies. Gilbert L. Bond with Simmons College in Boston gives a grudging acceptance to these new students: “Since the remedial-English student will be with us for some time to come, we may just as well accept him,” Bond writes (1945, p. 466), expressing skepticism about the usefulness of the modified writing courses: “A few earnest students who had had little background for

college work profited very much. Students who loafed in high school continued to loaf in college, at considerable expense to the university” (1945, 467-468).

As the compressed, grammar-focused curriculum took hold for “War English” classes during the 1940s, some instructors began to raise concerns about whether these curricular shifts might take broader hold even after the war years. George Wykoff, whose writing in *College English*, as noted above, commonly advocates during this period for more scientific and systematic approaches to composition instruction, nevertheless raises a caution in 1945 about whether a wartime fix for soldier students might become a more permanent fixture in college English departments. Wykoff writes: “Herein lies warnings of possible dangers ahead. Is it probable that administrators of the future will decide that the education program of these war years, with emphasis on practical studies alone, is a satisfactory program for peace time years as well? ... If so, we should say that our colleges and universities have become merely trade schools offering a practical training; they will no longer be offering a broad, liberal education in the traditional sense” (1945; p 341). Miller (1945) echoes the same question, although from a more approving perspective. Wartime efforts to train students “in an accelerated way” had brought efficiencies and systematic procedure to basic writing courses, Miller writes: “I believe many teachers in these programs – I, for one – will never return completely to peacetime teaching practices in the classrooms. A good dose of horse sense administered by the military has had a healthful effect” (1945, p. 444).

What writers like Wykoff and Miller predict, over times, does come to pass. Compressed, workforce-focused writing courses for underprepared students gradually did expand beyond courses for military students. In one example that also can be seen as a

precursor community college systems that would emerge more fully in the 1960s, Michigan State University in the late 1940s launched what was known as the Basic College, a narrowed program of study aimed at students who were expected to stay only one or two years in college before pursuing a practical career path and who were considered to need more extensive preparation in basic literacy skills. Michigan State instructor William D. Loy, writing in 1948, enthusiastically describes the Basic College as a specific outgrowth of the “War English” classes that had emerged in the prior decade, drawing attention to the ways those courses had prioritized industrial management techniques over the humanistic study of literature or writing: “In order to achieve speed in the learning process, the military put into operation methods which had been taboo in the best college circles” (1948, p. 206). Those same methods found new purpose in the post-war years, especially for students who were viewed as underprepared for college studies or unlikely to complete a four-year degree.

Frederic Reeve, in a speech delivered at NCTE’s annual meeting in Chicago in 1948, also points to the development of the Basic College at Michigan State with an approving nod to the course’s efficient framing and utilitarian nature for students with little college preparatory work in high school. The students in the courses, Reeve explains in his speech, likely had some prior work experience on a family farm or shop, and they were likely to return to a similar technical field after completing the two-year Basic College courses; only about 35 to 40 percent of students from the Basic College went on to complete a four-year degree. As with the approach to military students in the “War English” courses that preceded its development, the Basic College curriculum framed underprepared students as unlikely to pursue broader studies and the coursework did not

invite that inquiry. Reeve says, “It is equally obvious that this course must be utilitarian; that is, it must consider language in its function as a transmitter of fact and as an incentive to action” (Reeve, 1949, p. 34). Here, he describes the course and its students:

They will not be concerned with language as an imaginative, interpretative experience or as a decorative one. By its nature then, the course must exclude instruction in, or appreciation of, imaginative writing (I do not say ‘creative,’ since all writing is by its nature creative) aesthetics, phonetic, oral interpretation, etc. The student’s greatest need, from the point of view of this course, is to express himself without ambiguity in a socially acceptable manner. . . . Finally, it is clear that the course in written and spoken English must be a skills course, not a course in subject matter. While content must remain important, it is the skills that count. (Reeve, 1949, p. 35)

Reeve’s description reflects a belief about underprepared students as somehow unready or unable to explore language and writing beyond a narrow focus on skills and technical correctness. As U.S. higher education expanded to include ever more students from increasingly diverse backgrounds during the second half of the twentieth century, the inclination toward practical efficiency for those underprepared students gained steady hold and, as I discuss next, it was reinforced by the emergence of new instructional technologies that promised faster and more certain results even as they maintained a close focus on standard language instruction in the teaching of writing.

“TEACHING MACHINES” AND THE STANDARDIZING INFLUENCE OF TECHNOLOGY

The prioritization of efficiency that shaped approaches to remedial college English courses in the first half of the twentieth century led teachers, administrators, and researchers to seek out technologies that could make basic writing instruction and evaluation quicker and more systematic. Just as Myrtle Pihlman at the University of Tennessee advocates the use of the “highly efficient drill” focused on grammar dictation

in the 1940s, other composition instructors and scholars writing in *College English* welcome with mostly uncritical review technologies ranging from grammar workbooks to emerging audio-visual aides in the mid-twentieth century to, beginning in the 1960s, computerized instructional systems developed by behaviorists and psychologists like B.F. Skinner that came to be known as “programmed instruction” or, simply, the “teaching machines” (Ferster, 2014). While the specific technologies varied in their function and form, they almost always shared a common purpose of finding ways to more swiftly correct students’ language practices rather than of encouraging exploration of how arguments might be developed or presented.

Kenneth S. Rothwell, an English professor at the University of Kansas, frames this goal perhaps most directly, writing in *College English* in 1962 about the potential uses of programmed learning systems, classroom machines introduced in the late 1950s and early 1960s that were developed to allow students to work through lessons in grammar and writing (as well as in other disciplines) mechanics at their own pace (Ferster, 2014, pp. 88-91). While Rothwell was less certain how the teaching machines might be employed for higher-level writing and literature instruction, he unhesitatingly points to their practical use for remedial courses:

Virtually all remedial English at the college level could be handled by automation, with the machine as an impartial judge of a student’s ability to move ahead. Teachers, relieved of the executioner’s role, could then become counselors rather than taskmasters. Their human talents, at a time when trained talent is scarce, could be salvaged for situations better suited to them than mere drill. (1962, p. 247)

Rothwell’s straightforward declaration in many ways previews the claims and assumptions in place at the start of the twenty-first century about education technology, including the kind of classroom instructional system that this project’s broader case study

analysis explores. If automated systems are able to coach students through lessons about language mechanics and usage, as technology advocates claim at the time of Rothwell's writing and today, then instructors would have more time to focus on broader issues in student writing. Yet within this approach, there is little space allowed for instruction in *why* the common rules of language use are in place or how they came to be. There is no allotment of instructional time for students to explore the very idea of a *Standard English* or to consider how their own language practices align with that standard. And, critically, there is no challenge to underlying assumptions about the primacy of efficiency in the mastery of discrete rules of grammar and usage.

Rather, in the example of Rothwell's assessment of programmed learning and in other instances, the use of instructional technologies basic writing courses is viewed as a swifter and more scientific way to meet instructional goals for the teaching of grammar and language mechanics. As with Page's automated feedback system, Thorndike's measuring scales, and the teaching machines that followed, there is little consideration of what other kinds of instruction, discussion, or writing experiences those systems might have the effect of replacing or restricting—or what kinds of beliefs about writing the systems could be seen reinforcing.

Praising the use of electronic projectors, like the delineoscope touted for the “War English” classes, to show student essays on classroom screens for discussion, two authors from Texas Christian University write enthusiastically in 1952 in *College English* about the ways that the technology allows them to devote attention “to manuscript correctness, such as capitalization and the handling of numbers, to spelling, and to sentence unity and coherence, although some reference to diction, style, and poor organization was

inescapable” (Holsapple & Wood, 1952, p. 325). In remedial reading courses, instructors herald technologies intended—almost exclusively—to make struggling readers *faster* readers. Writing in 1951, for instance, Purdue University reading instructors praise the “tachistoscope”—a slide projector that controlled exposure times for student readers—and the “accelerator”—a book holder equipped with a shutter that descended over pages at a controlled rate to “regulate reading speed and prevent students from looking back on previous pages” (“Symposium,” 1951, pp. 99-100).

These notions of empiricism, efficiency, and standardization commonly are rehearsed, as well, in marketing appeals for grammar instruction systems focusing on remedial courses that appear across the pages of *College English*. A 1947 advertisement for the text *Drillbook in English* promises the text to be “completely objective” and that, “Each drill can be scored rapidly and easily with the key. There are no alternative answers; no judgment is required in scoring any drill” (p. xx). Advocating use of timed drills and testing in remedial courses, Ernestine Leverett, a writing instructor with Oklahoma Baptist University, writes in 1951 that such approaches are the only way of helping underprepared students master standard language conventions. Leverett writes that, “In the past, the remedial English programs have been, with possibly very few exceptions, dismal failures. They have not accomplished what educators hoped that they would accomplish—the instilling of the fundamentals of English grammar in the minds of college freshmen” (“Symposium,” 1951, p. 102). The technology of the timed drills, in Leverett’s argument, becomes the surer fix.

In turning to technological aids for instruction, teachers and researchers have sought ways to shape students’ language practices into a more standard form and with

greater empirical certainty of that work. Leverett, for instance, recounts a program at her university to model remedial literacy courses after language labs used to teach English as a foreign language (p. 102)—a move that casts students as not merely underprepared for college reading or writing but as somehow *foreign* to the academy. The offered solution is to improve or correct language practices through the certainty of a machined product. That same idea emerges a decade later at Howard University, where in the early 1960s labs designated as remedial used audiotape technology as a centerpiece of instruction intended to reduce or eliminate features of African American English in students' spoken English and, subsequently, in their written compositions (Hurst, 1965; Smitherman, 1977). The program at Howard was led by Charles Hurst, Jr., who was hailed as a modern Henry Higgins in a 1965 *Washington Post* account of how Hurst's "electronic speech improvement machine" could aid Standard English instruction for students at the historically Black university (Gustaitis, 1965). The attention the course gains in the popular press at the time is important to note as it highlights the way pressures from the public (including policymakers and, increasingly now, large private foundations) around remediation programs are shaped by messages about the promise of technology.

Detailing his research and instructional interventions in a 122-page report to the U.S. Department of Health, Education, and Welfare in 1965, Hurst frames African American English as a "speech defect" (p. 5). And he framed his technical intervention, which asked African-American students to listen to audiotapes of Standard English speakers and then practice reproducing the same vocal patterns, as primarily an economic effort—an echo again to the workforce preparation model established during World War II for literacy remediation. Using a medical-diagnostic term for African American

English, Hurst writes that, “Perhaps the most serious outcomes of a *dialectolalic condition* are of an economic nature. The condition contributes to employment barriers which preclude the utilization of the skills of many persons who are otherwise well qualified” (1965, p. 3). While Hurst here begins to surface the persistent stigmatizing of dialects, his own framing nevertheless persists in positioning students who are speakers of African American English as handicapped in some way and in need of assistance to overcome these barriers. Sociolinguists and education researchers would upend these beliefs in the decades that followed, and by the 1970s Hurst had abandoned his instructional approach. Yet, still, the appeal of using automated technologies to standardize students’ language in speech or writing would retain a powerful pull in the decades ahead.

Connections between technology and notions of standardization have long roots; indeed, the English language itself was first harnessed into a (more) standard form by a technological development: William Caxton’s invention of the first printing press in 1476. The history of the English language in the centuries preceding print encompasses broad shifts and wide variation in many of the standardized forms that modern speakers and writers take for granted such as spelling and editing conventions, all patterns that begin to take more standard form with the advent of print (e.g. Crystal, 2004; Milward & Hayes, 2012). In the same way, we can see modern educational technologies further fixing in place beliefs about “right” and “wrong” patterns for written English. In his prediction that automated instructional tools “could prove to be the greatest to boon to teachers of composition since the invention of the red pencil” (p. 245), Rothwell (1965) sees machine systems as particularly well matched to basic grammar instruction precisely

because of the rigidity with which they operated: “Clearly the mechanics of composition, involving *simple matters of right or wrong*, can now be arranged for machine teaching” (p. 246, emphasis added).

Rothwell’s pat assumption points to the beliefs about standard language that have shaped the curriculum of college literacy remediation over the past century and opened the door to many of the technical interventions intended to fix students’ language practices more quickly. In this view of literacy, language is comprised of discrete parts with distinct rules for how those parts can be properly assembled for writing or speaking. The resulting objective of coursework, then, is to find ways for students to learn those rules in a manner that is, foremost, efficient in terms not only of classroom time and costs but also efficient in shaping instruction around only those materials that are likely to be relevant for students in future economic roles. Rothwell, in fact, also draws the link to employment in his discussion of machine learning when he notes approvingly that students would have the ability to work at their own paces through such lessons and review points of confusion: “Thus the student who cannot master in 100 frames the principle of agreement between subject and verb can be treated to the same concept by means of 500 frames. If by then he still has not grasped the point, perhaps he should give serious consideration to a non-literary career” (1962, p. 247).

Of course, most of the work of college English and its introductory writing courses—whether for underprepared students or the most advanced—has never been intended as preparation for a “literary career.” But in such assessments, we can see the ways that students are perceived as insiders or outsiders in higher education based on language practices and their ability to swiftly acculturate to the standard language

practices valued within colleges and universities. For those students whose patterns of writing, reading or speaking do not readily reflect the conventions of Standard English, too often the response in the college classroom has been to restrict instruction to a narrow focus on mechanical rules rather than an authentic exploration of how language functions, how it operates to bestow or restrict social and cultural power, and how students might choose to adopt those literacy practices or, as importantly, how they also might choose to challenge or question those standard forms.

As this chapter has explored, those constraints on writing instruction for students considered to be underprepared have been shaped by factors that have persisted across the past century and that remain a clear force in education today. Beliefs about the importance of schools to operate efficiently and, relatedly, of schools to produce a well-trained workforce in many respects leave little space for schools or teachers to push beyond the narrowest constructs of writing instruction for those students who are seen as unready for broader inquiry and rhetorical exploration. Further, examples such as the Basic College curriculum that grew out of “War English” courses suggest not only a constraint on how students might come to conceive and employ writing but, more broadly, authority over future pathways for students who came from lower-income homes and working-class families. The remedial curriculum in this way can be seen constraining economic class mobility in spite of long-held beliefs, within higher education and outside of the academy, about education leading to gains in economic and social class status.

The arrival of various automated tools to speed and standardize instruction has long held the possibility of reshaping these pressures of constraint and authority. The impulse to help students master material more quickly and to give them a systematic way

to access social capital such as clear command of Standard English is an important kind of access in higher education, and it is one that remains a hopeful site for intervention. Yet even as instructional technologies focused on addressing error and speeding lessons in the conventions of Standard English have been met with perennial enthusiasm and an embrace of scientific authority, efforts to systematize writing instruction—as this chapter illustrates—not only have reduced classroom space for investigation of language shaped by linguistic and rhetorical understanding and, instead, have worked to further cement ideas about correctness and error in writing and, in so doing, to further entrench ideologies about the centrality of Standard English that instructors and students bring with them to the writing classroom.

As educational technologies today continue to draw close attention—particularly as a potential solution to the complex question of how best to shape instruction for underprepared college students—it is critical to consider how those technologies reflect, reinforce, or shape anew student and teacher beliefs about what good writing is and what role(s) writing, reading, and speaking play in lives within and beyond the academy. In the chapters that follow, I build on this historical examination of pressures surrounding efficiency and standardization in college remediation to explore the use of one current educational technology system in the context of a contemporary basic writing course.

CHAPTER THREE

Examining Today’s Teaching Machines: Case Study Design and Methods

INTRODUCTION

The complaint of the efficiency expert Leonard Ayers in 1909 about the “money cost of the repeaters” (p. 89)—and related attempts to reshape instruction by drawing upon emerging technologies to make remediation programs less costly and less time consuming—echoed across the twentieth century and persist today. As explored through the historical examples of the previous chapter, the search for a faster fix for students considered underprepared for the writing and literacy requirements of postsecondary studies repeatedly resurfaces across the story of higher education. And over the past 25 years, as personal computing and networked systems steadily have become ubiquitous on college campuses, state higher education policies that have restricted college remediation programs also have led to a renewed focus on a technological intervention and the adoption of automated instructional technologies in developmental courses.

Yet while many stakeholders in higher education have signaled interest in automated instructional tools as an untroubled answer to the complex issue of college remediation, current research (as reviewed in Chapter One) does not provide a full picture of what writing instruction looks like in these technology-centered classrooms. More specifically, contemporary scholarship has not examined the attitudes and beliefs of

students and teachers in postsecondary remediation contexts toward instructional technologies intended to make writing instruction more systematic and more efficient.

To explore these questions, I conducted a semester-long case study of a developmental writing course at the campus of a large community college campus in the Upper Midwest. In the fall of 2015, I spent a semester fully immersed in two sections of a single basic writing course, interviewing faculty and students and observing during twice-weekly class meetings their work with each other and with a common course technology system. This chapter discusses the methodology for the study design, including how the site and the technology product were identified for this study. I review how the study was conducted and how data was analyzed. Finally, I discuss limitations of the study and the influences of my own experiences and personal history on this work.

THE CASE STUDY: RATIONALE AND DESIGN

A close examination of how instructional technologies are deployed in the context of college developmental writing courses requires entry into that classroom space. This project presents an *instrumental case study* (Stake, 1995), one that is intended to allow researchers to gain deep, detailed insight into an issue through direct interaction with individuals directly involved and in the spaces where the phenomenon can be observed. The study developed here is a case focused on a single developmental literacy course—with data drawn from two sections, taught by different instructors—at a institution referred to as Regional Community College, or RCC, throughout this project.

While methodological approaches such as randomized control trials or surveys with related quantitative analysis can prove deeply useful for exploring many questions pertaining to educational practice, the key advantage to such approaches is *breadth*. This

project seeks to achieve *depth*, and that kind of rich, textured understanding becomes possible by listening to the voices of the teachers and students engaged with the technologies that this study takes as its focus. Through conversations and observations, through reviewing course documents and reading student writing, we are able to see the full, rich detail of the lived experiences of these classrooms, to consider the stated beliefs of the instructors and the students, and to witness their actions in practice. The case study resulting from this project is intended to offer a kind of exemplar of understanding that might contribute to decision-making in policy, curriculum, and administration spaces. This work seeks to demonstrate what Flyvbjerg calls the “force of the example” (2008, p. 228) and to reflect his argument that “the most advanced form of understanding is achieved when researchers place themselves within the context being studied” (p. 236).

Perhaps more simply, we learn through case study research because of the narrative structure it provides to complex issues and phenomena. As humans, we continuously construct new knowledge and new ways of understanding the world through storytelling—a position I believe in strongly not only as a researcher but also as a composition instructor dedicated to helping students tell their own stories and as a former newspaper journalist, one who viewed the reporting of stories as a way for communities to make sense of complex events unfolding each day, to come to see issues in new ways. This project shares the rarely voiced stories of students and teachers working in developmental classrooms in community college settings and, in so doing, fills a gap in existing research that could not be explored as fully or as deeply through other methods.

Inside the Black Box: Challenges of Examining Commercial Education Technologies

Given the widespread policy and popular attention paid to education technology today, it might seem like a fairly straightforward task to identify where and how various commercial instructional systems are in use. In practice, that process proved far more complicated. Because education technology systems are built and marketed by private companies, much of the information surrounding how they work, including basic information about *where* they are in use, is proprietary. (For further discussion of the difficulty of determining specific information about the products, see Haswell's (2006) discussion of breaking down the "black box" of automated technology systems.) Existing research offers some sense of how and where these emerging systems have been used in classrooms, but these accounts are not intended to convey the full instructional landscape.

Identifying potential sites for this study, then, required a two-step initial investigation. First, it was necessary to determine where prominent commercial instructional technologies tied to composition coursework were in use and whether they were being employed in the context of developmental college writing instruction. Next, I sought more detailed information from specific sites about how they used the instructional technologies in basic writing courses and requested permission for classroom access for a semester-long interview- and observation-based study. I did not begin this process preferring to investigate any one technology system or commercial vendor, although I was most interested in instructional technologies that incorporated some features of automated writing evaluation. I also did not begin this site selection process focused exclusively on community colleges; however, and as discussed below, I do see community colleges as critically under-studied sites within higher education.

While limited, both existing research and marketing materials available online from the primary commercial developers of automated writing evaluation systems helped, at least partially, to identify where automated technologies are in use for writing instruction at the college level and to establish how both corporate developers and scholars drew the connection between automated evaluation technologies and developmental writing contexts. To consider these patterns, I reviewed publicly available marketing materials—industry white papers, customer testimonials, marketing case studies, and press releases—from the four primary commercial developers of automated writing evaluation systems with classroom applications.⁷ Additionally, I requested adoption lists from each company for their primary automated instructional products (see Appendix A).

Only one of the four major commercial vendors responded to this request: marketing managers with Pearson in March 2014 provided a customer adoption list for its widely used *MyWritingLab* product for academic years 2013 and 2014. (This list, as discussed further below, would help to directly identify potential research sites for this project.) Vantage Learning declined to identify specific institutions using the company’s MY Access College Edition product, which includes an automated writing evaluation feature; however, a marketing manager said in an interview that the product’s primary demand is in basic writing courses in community college settings, and that the product’s default package of writing prompts is intended for developmental courses (Cupingood).

⁷ While this market is rapidly evolving and shifting, these four companies each have a clear stake (and instructional product) in the higher education market and were the focus of my initial inquiry: Educational Testing Service, which markets the Criterion Online Writing Evaluation System for college instruction; Pearson Knowledge Technologies, whose *MyLab* products—including My Skills Lab and My Comp Lab—provide support for basic writing courses; Cengage Learning’s Write Experience system; and Vantage Learning, which markets MY Access! College Edition through a subsidiary division, McCann Associates.

Other publicly available materials from the major commercial vendors also portrayed automated instructional technologies as particularly well suited for use in developmental writing courses. A 2007 corporate white paper describing opportunities for differentiated instruction using the Criterion system, for instance, describes the experiences of two instructors in the Dallas County Community College System (one teaching first-year composition at Richland College and one teaching developmental writing at Eastfield college). The paper suggests that a class structure that partially utilizes the automated feedback system “is especially good for Developmental Education programs in which student abilities and computer skills vary widely” (“Criterion Teacher Guide,” 2007, p. 8). Pearson marketing materials describe *MySkillsLab* as a tool for remedial writing instruction focused on “rapid progress through developmental studies and into credit-level courses” (“*MyLabs*”, 2013). And in online press releases, Vantage Learning describes its automated instructional tools as “targeted remediation” that is intended to increase student retention and completion rates.

Connections between the classroom use of automated evaluation technologies and developmental writing contexts are further echoed in existing scholarship on automated scoring systems for writing. Indeed, a kind of tacit acknowledgment among researchers in the field of automated writing evaluation commonly suggests that the technology’s use in classrooms most likely would align with instructional goals in remedial or basic writing courses where the classroom focus is assumed to more narrowly focus on technical features of language use. Burstein (2012), for instance, writes that while such a tool “is not a meaningful fit for every writer ... (l)et’s be fair and equitable and not forget about the substantial population of developing writers for whom [such systems] can be helpful”

(p. 212). Meanwhile, much of the existing critique of automated writing evaluation from composition scholars can likewise be seen making similar assumptions about the primary market for such systems as encompassing students in non-elite colleges and, within those locations, struggling and inexperienced writers. Reviewing available marketing materials for primary providers of automated writing placement tests, Herrington and Moran (2006) note that the use of those technologies was restricted primarily to two-year colleges with part-time students, fostering what the authors describe as an emerging two-class system in postsecondary writing (p. 126).

The Technology System: Pearson's MySkillsLab

From the inquiry described above, Pearson's *MyLab* system emerged as the technology system at the center of this project. In part, this decision was driven by pragmatism: Pearson's marketing division for *MyLab* was willing to share information about where the technology product was in use, which provided a concrete list of potential sites to approach and discuss this study. But the decision to focus on Pearson's *MyLab* system also reflects relevance: Pearson is arguably the most dominant player in current educational publishing, assessment, and technology. Pearson PLC is the leading education publisher in the United States, operating under a wide range of imprints and publishing brands. The British-owned publishing company also is the largest educational assessment provider in the United States, responsible for design and development of assessments ranging from state-level educational tests to the GED high school

equivalency exam to various career and workforce assessments including teacher licensure exams.⁸

Pearson's *MyLab* courseware products in many ways bring together the company's dual roles of textbook publisher and assessment developer. The *MySkillsLab* system, the product at the center of this case study, delivers basic content about writing development or reading skills to students much like a traditional textbook, with lessons divided into discrete online modules in which students are asked to read overviews and work through practice examples. Within each module, students also complete various multiple-choice quizzes to demonstrate their understanding of the material or reading passages, and they receive immediate feedback on those assessments through the online system. Using *MySkillsLab*, instructors also can assign short essay prompts through a feature called Write Practice, which provides immediate, automated feedback on students' written responses to the assignment.

The *MyLab* system, like Pearson itself, has a vast reach in higher education. The company estimates in its online marketing materials that some 11 million students⁹ are using some version of a *MyLab* product, which includes a range of discipline specific packages, including *MyMathLab*, *MyWritingLab*, or *MyReadingLab*. Additionally, for a range of disciplines, Pearson *MyLab* systems draw together a suite of research and study

⁸ The company's assessment division, Minneapolis-based NCS Pearson (founded in 1962 as National Computer Systems, one of the early education technology companies) has been identified as the leading scorer of standardized tests in the country (Bloomberg, 2015; National Board on Educational Testing). Perhaps most prominent in recent years, the company is under a multi-year, multi-million dollar contract (through 2018) to develop and launch new online assessments to be aligned with the Common Core State Standards in concert with PARCC (Partnership for Assessment of Readiness for College and Careers), one of two multi-state consortia developing Common Core tests (www.parc.pearson.com).

⁹ Estimate, current as of April 2016, comes from the company's MyLab/Mastering website: <http://www.pearsonmylabandmastering.com/northamerica/educators/results/results-library.php>

tools along with a more recently developed product, Writing Space, which allows instructors to track writing assignments, provides opportunity for students to receive automated writing feedback as well as feedback from instructors, and links to the plagiarism detection vendor Turnitin for students and instructors to review whether content in student submissions draws directly from other sources without attribution.

Pearson marketing employees responded to my inquiry about use of the *MyLab* system for writing instruction by providing an adoption list, current as of March 2014, which identified roughly 2,000 institutions at that time using *MyWritingLab* in some capacity. The information from Pearson identified institutions by name and state and the number of *MyWritingLab* product registrations recorded at those institutions during the previous two years. The institutional users identified on the product adoption list included some secondary schools as well as some home schooling locations. The wide majority of the schools, however, were community college campuses, career and technical colleges, and non-elite four-year institutions that focus on undergraduate education.

This list of *MyWritingLab* users offered a critical starting point for the site selection process for this study. From the Pearson adoption data, I identified postsecondary institutions that appeared to be regularly using the system—that is, they recorded registrations of 20 or more during 2013 or 2014, suggesting that at least one course was regularly using the product. I then focused on identifying institutions that were within a 100-mile radius of my home institution in Ann Arbor, Michigan, so that I could balance data collection for the study with my own teaching obligations. I also contacted a small number of schools that likewise appeared to be regular users of the system and that were either in locations where I had contacts from prior professional

work (this list included four schools, located in Kentucky, Ohio, and Maryland) or because the schools themselves were part of high-profile community college systems (this shorter list included one site in Chicago and one site in South Florida).

Of fifteen schools identified for further inquiry (see outreach letter at Appendix B), I made contact with individual instructors or department chairs at five locations; the other institutions either did not respond to requests for more information about their use of the *MyLab* technology system or declined to participate. Of the five potential sites that did respond, three were currently using (as of winter 2015) some form of the *MyLab* technology in developmental writing courses. After conducting informal phone interviews with contacts at those sites, the institution identified in this work as Regional Community College stood out as a strong candidate for this project. The college was using *MySkillsLab* in a developmental literacy course in which all instructors were required to follow a common course syllabus that included work from ten of the *MySkillsLab* modules over the course of a semester. The English Department chair stated in our initial phone conversation that she saw value in the use of the technology, but she was unsure of how students perceived the systems or what they took away from the online lessons, and she said the technology use was complicated in some ways by varying levels of buy-in by classroom instructors. The chair said she was open to learning more about how the technology was perceived to help her review the product's usefulness in the department's courses.

With subsequent approval from the Chair of the English Department, the Dean of English and Communications, and the Office of the Chancellor, which oversees research requests, I gained approval to conduct observation- and interview-based research at one

of the college's five regional campuses for a pilot study in summer 2015 and for the full study during fall 2015. Both stages of this project were reviewed by the University of Michigan's Institutional Review Board and were determined to be exempt from ongoing review because the study was restricted to investigation of normal educational practice.

The Institutional Setting: Regional Community College

Regional Community College was an instructive site for this project foremost because of its systematic use of the *MySkillsLab* system in developmental English courses and the interest on the part of its administrators and instructors in learning more about such systems. More broadly, though, both the course and the school reflect many prototypical community college patterns in the United States. Opened in the mid-1960s amid the rapid expansion nationally of community college systems, RCC now operates five campuses with overall enrollment of about 26,000. According to college data, the average student age is 28, and these students juggle a range of other responsibilities beyond school: 95 percent of enrolled students also work in full- or part-time jobs, and 70 percent of students attend the college part-time (55 percent attend at night). The student body is majority white (58 percent), with African-American students making up 25 percent of enrollment, and Asian and Hispanic students comprising three percent of enrollment totals respectively.¹⁰

Like other community colleges across the country, RCC faces challenges around student retention and graduation: the year-to-year retention rate is 48 percent for full-time students and 43-percent for part-time students; the graduation rate is 11 percent. The college also records a transfer-out rate of 33 percent—an important statistic for

¹⁰ Demographic data for RCC is compiled from federal education statistics; the most recent data available was for academic year 2013-14.

community colleges, which have long seen as a core mission the goal of helping students move to four-year institutions after completing general education courses. RCC's transfer rate almost directly matches national estimates on community college transfer (Jenkins & Fink, 2006). Nationally, an estimated 39 percent of students who begin their studies at a community college graduate from the school within six-years (Shapiro & Dundar, 2014).

More generally, the students, instructors, and administrators at Regional Community College reflect important demographic trends across higher education, and locating this project at a community college site allows a more nuanced picture of their experiences. Almost half of all college students—roughly 44 percent—begin their postsecondary coursework at community colleges (American Association of Community Colleges, 2012). And researchers have shown that more than half of all students enrolling for the first time in community colleges are required to complete some remedial coursework. A 2010 study of more than 250,000 students by the Community College Research Center found that 59 percent of students entering two-year institutions were referred to developmental math courses and 33 percent were referred to developmental reading classes (Bailey, Jeong, & Cho). The Center also has suggested that number could reach much higher citing Federal Beginning Postsecondary Student (BPS) data showing that 68 percent of students entering community colleges in 2003-2004 took one or more remedial courses in the six years following their initial enrollment.

These data draw attention to the central role that community colleges play not only in college remediation but in much of the on-the-ground work of undergraduate education. Hassel and Giordano (2013), arguing for more rigorous and expansive writing research based in community college settings, write that these sites too often are

overlooked and marginalized in professional scholarship due in part to the teaching mission of two-year institutions and because these schools and their faculty members too often do not “enjoy the same cultural status as selective institutions” (p. 118). That dynamic obscures the expansive teaching function of community colleges and the emerging knowledge about teaching and learning that occurs within their writing classrooms. Likewise, in a call for more extensive research into mathematics education at community colleges, Mesa, Wladis, and Watkins (2013) argue that much of the existing scholarship on community colleges has focused too narrowly on definitions of student success and retention or the costs of remediation, leaving unexplored “the one aspect that may most determine students’ success—their experiences in the mathematics classroom” (p. 174). This push for classroom investigation holds true as well in the context of reading and writing courses, and this work seeks to address those calls for more rigorous inquiry into the complex work of teaching and learning that takes place each day in community colleges.

The Course: Academic Literacy II

This case study draws from two sections of a single course, Academic Literacy II, a paired developmental reading and writing course. Students generally are required to complete the course based on scores on reading and writing placement tests¹¹ administered to new students enrolling in the college. Some students enroll in the course after completing Academic Literacy I, a lower-level remedial course, or based on an

¹¹ In fall 2015, entering students at RCC were required to take the COMPASS placement test, a multiple-choice, computer-based assessment of language and writing skills. That national testing product was discontinued during the 2015-16 academic year, and RCC switched to using AccuPlacer, a similar commercial course placement assessment that also incorporates machine evaluation of student writing for course placement.

advisor's recommendation. Students who earn a passing grade in Academic Literacy II are eligible to enroll in Composition I, the college's traditional first-year writing course.

All instructors teaching Academic Literacy II at Regional Community College are required to use a common syllabus developed by English Department faculty for the course. The English Department Chair, Colleen Davis,¹² explained to me that the goal in creating the common syllabus was to have all instructors working in "lock-step" to ensure that students who had completed the course would arrive in Composition I classes with the same general body of knowledge and level of preparation. In conversations responding to the findings of this study, Davis emphasized that instructors do have latitude to incorporate the required technology modules in the way that they think best fits their approach to the course and style of teaching. She noted, for instance, that in her own classes, she generally has students complete the technology components as homework while other instructors might choose to use the automated system more extensively during class sessions.

The course description for Academic Literacy II frames reading and writing as connected activities and emphasizes the importance of process in both literacy practices. The course description also provides a foundation for attention to mechanical correctness in writing:

Students will also demonstrate knowledge of the conventions of the English language, develop strategies for locating and correcting their own pattern of error, demonstrate literacy skills appropriate for difference audiences and purposes, and use computer technology as a literacy tool.

This course goal suggests a broad view of how correctness in writing can be understood and it opens the door for a wide exploration of language using the computerized systems.

¹² All instructor and student names are pseudonyms.

As the subsequent chapters explore, this capacious view of recognizing patterns of error and considering matters such as audience and purpose could be seen as losing ground to more rigid constructions of “right” and “wrong” in writing instruction. But this course goal is an important foundation that suggests possibility for broader inquiry.

This project focuses on writing instruction, but it is important to note that the Academic Literacy II course also encompassed extensive work on reading and comprehension skills for academic texts. Throughout the semester, students in all sections of Academic Literacy II read a common text selected by English Department faculty and complete various activities intended to support reading comprehension and speed, including text annotation and summarizing, reading journals, and class discussions. During the semester that I observed the course, students read *In A Rocket Made of Ice: Among the Children of Wat Opot*, a non-fiction memoir of a volunteer working with children orphaned or abandoned by parents with AIDS in Cambodia. And while this study focuses most closely on writing instruction related to the automated instructional tools, students in the course complete at least three academic essays of four- to five-pages in length. Each essay assignment undergoes a series of revisions, and students submit drafts and final written work to a portfolio committee at the end of the term as part of a final assessment in the course. The academic essays require students to draw textual support from the common text and to demonstrate understanding of MLA formatting guidelines.

While the course covers this wide range of material and assignments, work in Pearson’s *MySkillsLab* system is a central feature throughout the class. At the beginning and end of the term, students complete a multiple-choice grammar diagnostic assessment

intended to track their learning across the semester. Also at the start and finish of the term, students complete an online essay prompt through the Write Practice feature of *MySkillsLab* and received automated feedback on their work. And across the semester, students complete work in ten online modules through *MySkillsLab*, with each module addressing a discrete lesson about writing instruction or language conventions. During the fall 2015 course, those modules addressed the following topics: paragraph organization, writing topic sentences, sentence fragments, subject-verb agreement, comma usage, run-on sentences and comma splices, pronoun reference and point of view, use of quotation marks, use of apostrophes, and a review of easily confused words. English Chair Davis said those ten modules were included in the class based on common concerns about student work in the developmental courses as well as in Composition I.

DATA COLLECTION

Across the fall 2015 semester, working within two sections of the Academic Literacy II course at Regional Community College, I conducted 27 student interviews with 14 students and four instructor interviews with the two instructors. (Student and instructor participants each were interviewed at the beginning and end of the semester with the exception of one student participant who dropped the course and was only interviewed once.) I met twice with the English Department chair, once in the planning stages of the project and once at the end of the semester, and I attended one department faculty meeting just prior to the beginning of the semester that was attended by instructors, the department chair, and the division dean. In what I refer to as Section I of the course, taught by Instructor Ellen Anderson, I observed 26 of 28 regular class sessions during the semester. In what I describe as Section II, taught by Instructor Dee

Bennett, I observed 26 of 29 regular class sessions. Additionally, I had access to the technology system for both classes, including student work and scores. Here, I discuss how study participants were selected and the procedures I followed for collecting interview and observation data. I also describe other types of data and artifacts reviewed or collected during the study.

Participant Selection

This project initially sought to work with up to three sections of the same developmental writing course in order to be sure that the case study would be able to explore and represent the questions of this study as fully as possible and without attending too specifically to the classroom practices of any one particular instructor. Because the Academic Literacy II course met for six hours each week—in three-hour sessions twice a week—I determined that following two sections rather than three would more reasonably allow time for student and instructor interviews and conversations before and after class sessions. Both of the instructors who participated in the study volunteered after being contacted initially by the English Department chair, who shared a general notice about my project and its goals with faculty in the department.

Before describing the two instructor participants more fully and discussing how they were selected, it is relevant to note that both instructor participants generally had favorable views of the instructional technology system at the outset of the project and, indeed, that is one reason they offered to participate. (See faculty recruitment outreach at Appendix C.) I also met with two other instructors who volunteered to participate in the full study and they, too, generally supported use of the technology system in the classroom and saw it as a useful tool. As shared by the department chair, and as might be

expected, faculty views within this RCC campus were divided regarding the use of automated instructional tools, with some instructors skeptical about the utility of the system overall and others simply reluctant to learn the system or teach it to their students. It is reasonable to surmise that those faculty members who were more skeptical of the technology or resistant to using it were less likely to volunteer to participate in a study examining its use.

Section 1: Instructor Ellen Anderson

After securing permission in spring 2015 to conduct research at RCC for the upcoming fall, I approached the English department chair about conducting a month-long pilot study during the summer term to begin identifying instructor participants and to refine observation and interview procedures based on the structure and format of the class sessions. Only one section of the Academic Literacy II course was offered by the college in summer 2015, but the instructor, Ellen Anderson, quickly agreed to have me join the class as an observer. During June and July of 2015, I observed six class sessions, and conducted one interview with Anderson and conducted two student focus group interviews that included five students from the class. (Three students participated in the first focus group; two students participated in the second session. As I will discuss below, these focus groups allowed me to refine both student interview questions and procedures.) During our work together for the pilot study, Anderson indicated her ongoing interest in the study and her willingness to continue as a participant in the fall.

At the time of the pilot study, Anderson was an adjunct instructor with RCC and was teaching the Academic Literacy II course for the fourth semester. She also taught Composition I at RCC and worked as a regular adjunct instructor at another community

college in the region. During the summer of 2015, Anderson was hired by RCC as a full-time faculty member and campus Literacy Coordinator, and it was in that new role that she began her work during the fall semester. As Anderson shared with students on the first day of the fall semester, her own college studies started at a community college in the region. She earned an associate's degree from the college over a four-year period, working full-time while she took classes. She later earned a bachelor's degree in English from a large, state four-year university and subsequently earned an MFA in creative writing from a fine arts program in the Northeastern United States.

In the fall of 2015, Anderson taught two sections of the Academic Literacy II course along with one section of the Composition I course. Her duties as the campus Literacy Coordinator also meant she regularly met with other instructors teaching the course and helped to trouble-shoot issues with the syllabus, teaching materials, and the *MyLab* technology system. Anderson also served as a faculty liaison for Pearson, a role that included attending Pearson-sponsored training sessions, providing feedback on the *MyLab* system, and relaying ideas and concerns from other instructors.

Section II: Instructor Dee Bennett

For the full study, as noted above, the English Department Chair contacted faculty to let them know about the project and to solicit instructors who would consider participating. After that initial outreach, I contacted three instructors by email or phone who had indicated that they would be willing to participate. Based on class schedules, I also sat in on the initial class sessions of two of those instructors before selecting Dee Bennett, an adjunct instructor at RCC for the previous seven years, as the second instructor participant. Bennett stood out among the prospective participants for her

willingness to question and think critically about the *MyLab* technology system even as she generally saw it as a positive tool for the classroom and one that could help students to become more computer literate as they progressed from college to career roles.

Bennett had earned a bachelor's degree in communications from a large, highly selective public university and, after working in marketing and public relations for an elite private university business school in the southern United States, she chose to pursue an MFA and work in college writing instruction. Sharing her biography with students on the first day of class, Instructor Bennett said she hoped each of them would one day find a career as rewarding as she found her job of teaching. In fall 2015, Bennett taught one section of Academic Literacy II at RCC; she also held a second adjunct role at another area college.

Student Participants

In both sections that I observed for the case study, I sought permission from all students in the class to participate in general course observations. I also sought to recruit seven to nine students from each section who would be willing to be interviewed at the start and conclusion of the semester. My goal was to have a core group of 12 to 15 students, across both sections of the course, who could speak to the ways that the technology system helped to shape their views of writing and writing instruction as well as their attitudes and beliefs about the system itself.

After introducing myself and the research project to students in both sections on the first day of class, I began recruiting students to participate during the second and third class meetings by explaining the goals and purpose of the study, which was also outlined in the observation consent form (see Appendix D) distributed to all students in both

classes. The observation consent form indicated that, as part of the research project, I would be a) observing most class sessions and recording written field notes throughout; and b) that I would not identify students, instructors, or the college by name in any notes or in any written documents about the study. Further, I informed students that if they chose not to participate in the study, I would not record any information about their activities in class sessions.

In addition to the observation consent form, I also distributed to all students a one-page questionnaire and interview consent form for students to complete if they were interested in participating in the interview portion of the study. I indicated to students that I would like to meet with them at two or three intervals during the semester for approximately 30-45 minutes per interview. As acknowledgement of their time and effort, I offered \$20 per interview and suggested to students that their reflection on their own learning through participation in the study could enhance their learning in the course. Of the 20 students enrolled in Instructor Anderson's class at the start of the semester, 19 students agreed to be part of class observations and 11 volunteered to be student interview participants; of 20 students enrolled at the start of the term with Instructor Bennett, all student in the class agreed to participate in observations and 14 students volunteered to be student interview participants.

From the interview recruitment questionnaires, I sought to select student participants for the case study interviews that would reflect diversity in terms of age and race and, where possible to determine, economic class as well as school and workforce experience. In each section, I identified seven students to participate as interview subjects. I describe those participants briefly in the tables below, and their voices and

experiences are reflected more fully in the findings chapters that follow. It is relevant to note that in both sections that I followed for this case study, as well as a third section that I visited at the start of the semester while recruiting faculty participants, students generally were younger than the RCC average of 28 and, in some ways, reflected traditionally-aged student body populations more closely than many community college classrooms do. In fact, Instructors Anderson and Bennett both remarked that the sections were generally younger than they typically see in their courses. That fact is relevant here partly to indicate one potential limitation of the study: because students in the course generally were under 25 years old, they may have been more inclined to adapt to the classroom technologies and to be more enthusiastic about the use of technology in the classroom. In subsequent interactions with Instructor Bennett, for instance, she noted that the Academic Literacy II course she taught in winter 2016 included more older students who, in general, were slower to adapt to the classroom technology system and to see its usefulness in the course.

Figure 3-1 Student Interview Participants, Section I (Instructor Anderson)

Name	Age	Race	Prior school	Career goal	Learning goal
Sarah	18	White	High school	Lawyer	“How to become a better reader and writer.”
Caroline	19	White	Prior enrollment at RCC and a four-year satellite campus	Animator or photographer	“To improve my reading and writing skills.”
Gary	19	White	High school	Music production	“Needed the class, but, looking at it from a positive perspective, it will help my grammar skills.”
Alisha	17	African-American	High school	Computer science	“To learn more about grammar and reading skills.”
Michael	18	White	High school	Natural Resources officer	“How to read and write better.”
Brandon	24	White	High school	Musician or voice actor	“To better my reading and writing skills.”
Anna	18	Hispanic-American	High school	Nursing	“How to write a good essay. The right way to use punctuation as well as improve my vocabulary.”
*Did not complete course					

Figure 3-2: Student Interview Participants, Section II (Instructor Bennett)

Name	Age	Race	Prior school	Career goal	Learning goal
Maggie	18	White	High school	Special education	“To use better grammar.”
Derrick	18	African-American	High school	Business	“Become better in English.”
Joe	22	White	High school	Sales	“To be a better and more professional sounding writer.”
Claire	19	White	Prior enrollment at RCC	Social work	“How to become a better writer.”
Yvette	18	African-American	Prior enrollment at RCC	Nursing	“To be a better writer.”
Shauna	19	African-American	High school	Special education	“Become a better writer and possibly gain more skills.”
Michael	25	White	Prior enrollment at RCC	Sports journalism	“To have a better grasp at grammar. To further myself in my dream.”

Interview Procedures

In order to track instructor and student attitudes and beliefs about the course and its use of the technology system across the term, I interviewed all participants near the start of the course (within the first three weeks) and near the conclusion of the course (within the last three weeks). In all, I conducted 27 student interviews and four instructor interviews, a total that includes the student participant Anna, who did not complete the course and was interviewed only at the beginning of the term. All other participants completed (and passed) the course and remained in the study throughout the semester. I

interviewed all student participants in blocks of time before or after class sessions; because of their individual work and commuting schedules, it was at times difficult to schedule even those blocks of time for meetings and, in a few instances, interviews were abbreviated due to scheduling conflicts.

Instructor interviews were conducted in the faculty offices or common spaces at the college but outside of the classroom; my final interview with Instructor Bennett was over lunch at a restaurant off campus. In each interview session, I worked from a semi-structured interview protocol (see student protocol questions at Appendix E and instructor protocol questions at Appendix F) and modified or supplemented questions based on individual student work or student or faculty stated beliefs or actions during class observation sessions. All interview sessions were recorded and transcribed verbatim for analysis.

In both student and faculty interviews, I sought to use the first session to develop baseline information about the participants' views not only of technology and the system used in the course but also to explore their broader thinking about writing instruction, how they use writing in their lives, their goals for the course, and what they consider to be good writing. During the second interview session, questions explored the role of the technology system in the course in more detail and sought to examine what connections participants saw between the technology-supported lessons and the learning goals and outcomes of the course as well as the students' final written work samples.

As I note in my discussion above of the site selection process, I conducted student interviews in small focus group settings during the pilot phase of this project. Initially, I used this structure because I anticipated that students might be more comfortable

discussing their learning process and experiences alongside other students who were likely to share some of their experiences, concerns, and insights. During those focus group interviews, however, I noticed that those students who were more confident or assertive dominated the conversation and that the others, when they did speak, tended to merely echo the ideas of their more outgoing peers. For that reason, I conducted all of the interviews for the full study in private, one-on-one settings. While this approach limited the number of students I was able to interview during the semester due to the time constraints of scheduling individual interviews, I found the conversations to be more candid and more exploratory than focus group settings allowed.

Classroom Observation Procedures

Over the course of the semester, I observed 52 of 57 class meetings across both sections of the Academic Literacy II course—a total of approximately 150 classroom hours. The class sessions I did not attend were due to scheduling conflicts on my end or because the class meeting was dedicated entirely to an assessment not related to the study (for example, mid-term reading exams). In developing this study, I did not initially plan to spend as much time in the classroom as I ultimately did. Rather, I expected to attend some of the initial classes at the start of the semester to understand course goals, classroom practices, and to observe initial acclimation to the technology system, and I then expected to observe classroom work limited to four or five of the lessons delivered through the *MySkillsLab* modules. However, after completing the pilot study in summer 2015, I recognized three key issues that led me to expand the observation schedule to spend most of the semester in both sections: the unpredictability of classroom schedules,

the fluidity of instruction crossing into technology, and the importance of developing and maintaining trust with study participants.

The first two factors that led to a more embedded structure for observation are closely related. As teachers well know, a course syllabus is an important map for any semester, but any one lesson or planned activity can be shuffled or rescheduled in order to best accommodate student learning. It was not always easy, then, to predict the exact days or classes when students are likely to be directly engaged with the technology system whether independently or with instructor guidance. For both reasons, I recognized after completing the pilot study that it would be more useful for me to be in the classroom for as many class meetings as possible, although my attention and focus in recording field notes was trained on three primary classroom activities: direct interaction with the *MySkillsLab* system, general writing instruction, or general instruction in grammar, which was often, but not always, directly related to the *MySkillsLab* modules. Class time that was focused primarily on reading skills or book discussion, for instance, was noted in formal field notes or handwritten jottings, but was not recorded in great detail.

Finally, I determined it was important to be on site as frequently as possible in order to build and maintain rapport with instructor and student participants. I was acutely concerned with not appearing in any way to be a drive-by visitor—no less, one from the elite research university down the road—who occasionally stopped in the classroom, scrambling to make sense of how the class was proceeding. By showing up class after class, working quietly alongside the students or catching teachers and students between classes to ask a question or just listen as they talked about their day or puzzled through an

issue in the course, I sought to establish myself as a trusted and reliable narrator who would relate their stories fully and accurately.

Although I was a constant presence in both sections of the Academic Literacy II course throughout the semester, I did not seek to insert myself as a participant-observer in this study. My goal throughout the observations was to remain as unobtrusive as possible in order to record how students and teachers approached the course and the technology system without my imprint on the dynamics of the classroom. Certainly, I regularly chatted informally with students as I sat among them in the regular classroom or the computer laboratory. I would respond if directly asked a question by students or the instructor during class time and, at times during class sessions, both instructors would engage me in talk about the class or the technology system while students were engaged in independent work during class sessions. Overall, though, I sought to work from the edges of the class or as quietly as possible alongside students as they hovered over keyboards and trained their eyes on the computer screens during class lessons.

The extended observation work was not considered in the initial planning for this project and, as a result, my approach to the structure of the observation recording and subsequent analysis also emerged across the project. I consider this a limitation of the work: had the project begun with a more rigorous and systematic approach to observational note taking, some features of classroom practice might have been more evident and some implications of student and teacher interaction with the technology system might have been surfaced more clearly.

In the observational recording system that did unfold during the project, I recorded notes using the online software program EverNote, which allowed me to tag

some themes and lessons as they were unfolding in the course. The layout of the campus building meant that internet access was, at times, spotty. When it was not possible to connect to EverNote in the classroom, I recorded notes offline in a Word document and later transferred the files. The observation notes captured in this way were narrative accounts of the day's activities as they unfolded. The notes did not record time spent by the instructors on specific classroom activities or practice—a step that, in hindsight, could have strengthened the observational data—and the notes focused most closely on the periods of the class that were spent working on writing instruction or with the technology system specifically. The narrative notes capture some of the classroom time spent on activities such as reading comprehension discussions, but these notes most often were only general summaries of those activities. After analysis, I concluded that closer attention to other activities across class sessions could have contributed rich context and comparative data for thinking about how literacy practices were constructed and enacted in class sessions, and future observation work would be guided by this recognition.

Other Contextual Data

In each observed section, I collected a range of documents and was able to observe additional data and student work through the *MySkillsLab* system, including submissions to the auto-evaluated Write Practice feature, using access provided by the course instructors and with student consent. Course documents collected from each section included syllabi, assignment sheets, handouts, supplemental readings, and other materials and links provided through the course websites, which were maintained through the commercial course management vendor Desire2Learn (D2L). Although writing assignments varied between the two sections, students in both classes completed one

essay that was a common assignment across the college for the Academic Literacy II course, and I collected final drafts of that assignment from the students who had participated in the interview portion of the case study. I also sought and was granted permission from those students to review the final timed written essay they completed as part of the course final exam, which also was a common prompt across all sections of the course. These written materials were not systematically analyzed for the current study, but they provided additional contextual guidance during analysis of interview data.

DATA ANALYSIS

In approaching data analysis for this project, I was conscious of the importance in case study research to make space for tensions and ambiguities in the data (Flyvbjerg, 2008; Miles, Huberman, & Saldana, 2013) and to consider closely the stories that those spaces suggested. I wanted to be sure that there was opportunity to more closely examine the broad narrative of education technology that, too often, paints technological interventions in classrooms as either an unassailable move toward modernity or as a kind of robo-driven evil. Certainly, those stark poles are visible in the lines of the debate surrounding the role of automated writing evaluation in composition studies. Within this case study, I have sought to make more space in the debate over educational technology for the many shades of gray between those positions. My approach to data analysis reflects a conscious awareness of the risk that can accompany efforts to make analysis too tidy or collapse too neatly the ideas that the participants in this study help to bring to the surface.

That goal was a driving concern during both data collection and data analysis. Throughout the semester I spent alongside students and instructors at RCC, my daily field

notes reflected both details of the classroom activities and interactions as well as my reflective jottings about key ideas and themes that appeared to be emerging from the study in real time. After the first round of teacher and student interviews, I recorded my immediate thoughts about the direction of the study and the responses during the interview sessions in a series of short memos about both the emerging data and the process of the study as well. These short memos and early analysis helped shape the second interviews and guided my day-to-day observational work as I was able to review and reconsider comments from students and teachers across our time of working closely together. These reflective memos also contributed to early stages of data analysis by helping shape broad initial code categories.

At the end of data collection, I transcribed all student and instructor interview sessions verbatim with the assistance of a commercial transcription vendor. I also divided class observation field notes into one of two categories: primary or secondary data. Of the 52 class sessions I observed, I identified field notes from 28 sessions as primary data and 24 as secondary data. Class sessions identified as primary data focused on or showed specific evidence of 1) class expectations and norms, 2) student and instructor interaction with the technology system, 3) specific ideas about writing instruction, and/or 4) specific discussions by student or teachers that demonstrated views and attitudes toward technology within the course context. All primary class sessions were coded alongside interview data. Field notes from classes categorized as secondary data were not closely coded but were reviewed to provide additional context and, in some instances to help explain other phenomena in the course sections.

The themes and arguments about educational technology that this project ultimately examines emerged from a data analysis system of open and axial coding developed from the grounded theory approach of Corbin and Strauss (2008) and across two distinct cycles of coding and analysis, as supported by Miles, Huberman, and Saldana (2013). In the early stages of this process, many of the coding themes for this project originated from the research questions and the theoretical grounding in composition and higher education research that shaped the overall project. The design and goals of the study, for instance, logically led to coding categories to examine notions such as “grammar” and “correctness” and broad themes about “technology” and “efficiency.” In the first cycle of data analysis, I drew from the in vivo method of coding qualitative research data, focusing on the participants’ voices and words and allowing concepts to emerge from the data rather than from predetermined themes of the study. This allowed critical space to consider the many ambiguities of the broader issues of the project. From the data, I developed codes to capture both “belief” and “skepticism” about technology, as I heard students and instructors try to balance fixed notions about the good of technology with moments of uncertainty about its utility in all situation.

After completing a first round of coding of all interview data and all primary field observations, I prepared a formal memo detailing my sense of the key emerging themes and findings of the project. This memo, like the thinking it sought to capture, emerged through several iterations. In my initial coding, I anticipated that the key themes that would emerge from data analysis generally would follow the theoretical framework of the project. That is, I imagined one section of data and analytical work built around ideas of

efficiency, another section focused on Standard Language Ideology, and broad work examining the ways that socio-cultural understandings of literacy emerged in the work. Yet as I sought to apply these concepts in this way, I realized that they were at once too broad for some of the analytical work and, in other instances, they were not capacious enough to fully capture the tensions and ideas about writing instruction that the data reflected. Other thematic ideas, such as using *technology* as a broad construct for analysis and discussion, likewise proved too narrow to examine fully the various competing themes that were emerging from the interview data and observed classroom interactions.

It was more critical, and more accurate, to build the thematic discussions of the project around the concepts that both the theoretical ideas (*efficiency*, for instance, or *standard language*) and the specific features (the *technology* system itself) pointed to. Eventually, and as the opening chapter of the dissertation reflects, I focused on the ideas of *authority*, *constraint*, and *possibility*. These thematic categories allowed me to think about how the data from the investigation intersected with the theoretical framework. And as they took shape, these emerging themes also led me to reclassify and rethink some codes. At this stage, for instance, I began to more closely consider the issue of “rhetorical awareness” as shaping student and teacher ideas about technology and instruction, and, ultimately, working both as constraint and possibility in the classroom. After refining conceptual categories and codes in this way (see Appendix G for an example from the final codebook), I completed a second round of coding. In final stages of analysis, I also examined the data both within the unique sections of the course and across the sections to clarify the final coding and analysis structure.

Ethical Considerations

Limitations and Validity of Study

This study focuses on two sections of a single course at a single institution and, as such, it is necessarily limited to the events and transactions of that site during the four-month span of this investigation. Were this study conducted at a different site, or in collaboration with different instructors, or in classrooms using a different instructional technology system, the findings and the narrative of this project would surely have different outlines and raise different possibilities. Indeed, this chapter already has raised some of the potential limitations of the work: the relatively limited demographic mix of students in the classes studied, for instance, can be seen as one limitation as well as the underlying assumption that instructors who volunteered to participate in the study were more likely to support the use of automated technologies in the classroom versus those who did not volunteer. In conversations about the findings of this work, the participant instructors also raised the possibility that they may have focused more on the technology system in their teaching of the course that term precisely because they were involved in this study and because I was in the room.

As discussed earlier in this chapter, this case study seeks to present a clear exemplar for better understanding how students and teachers interact with automated instructional technologies, how those systems exert their own pressures of efficiency and how they shape understanding of writing and writing instruction. One challenge of case study research is to anticipate pressures and factors that could reduce the validity and reliability of that exemplar and, as importantly, to demonstrate clearly how those potential factors have been anticipated and addressed. Drawing from Maxwell's (2013,

pp. 125-129) checklist for testing validity in qualitative research work, I suggest that the validity of the current project's findings, recommendations, and suggestions for further inquiry are supported through four distinct measures taken both during development and execution of the study and in subsequent analysis and review.

Intensive involvement. Maxwell (2013, p. 126) argues that repeated observations and interviews, as well as the “sustained presence of the researcher in the setting studies” can help researchers to more accurately portray the phenomena being studied and to rule out weak conclusions about the issue under study. This project purposely evolved into an embedded and ethnographic-style case study, one in which I was in near constant contact with participants across the semester of the project, in order to build trust and to ensure that there were not missed moments that could challenge a finding or offer alternate explanations not already explored.

Rich data. Through the process of sustained observational involvement in combination with interview data across the length of the study, I have sought to develop rich data with specific and concrete details to show the phenomena and fully support the findings and conclusions reached. Becker (1970, quoted in Maxwell, 2013) advised that such an approach prevents the qualitative researcher from limiting observations “so that he sees only what supports his prejudices and expectations” (p. 126). Here, the extensive nature of both observation and interview data, along with other classroom artifacts, provide a complex foundation to test and challenge conclusions. Maxwell further argues for the inclusion of comparisons as a way to further test validation in qualitative research. While this study does not employ a formal case comparison methodological approach, I

have intentionally drawn data from two sections of the Academic Literacy II course in order to avoid drawing conclusions perhaps valid only to a single instructor or class.

Respondent validation. After the conclusion of data collection, and throughout the process of analyzing and reporting findings, I have remained in touch with the college instructors and administrators as well as with individual students in order to touch base both on my progress and on any developments in their work or studies. This system of *member checks* has served as a way to obtain feedback about data and findings from the actors directly involved with the issue that is the focus of this study. Through email and phone conversations, I have reviewed the key findings of the study and specific quoted passages with each of the student participants, who confirmed their statements and experiences throughout this work. The two instructors and the English Department chair reviewed drafts of the case study chapters and, in a subsequent meeting, shared their responses and concerns to the work. The department chair raised concerns that the case study could not stand-in as a representation for every section of the course or the college overall, a limitation I acknowledge as well in this chapter. Both the chair and the instructors also resisted the representation of the technology system, and grammar instruction in general, as consuming as much space in the course as this work portrays. I have incorporated their responses into final drafts of the findings chapters.

Triangulation. This project draws from a range of sources and employs a variety of methods both to draw a full and detailed picture of the issue being studied but also as a way to reduce the bias that can be introduced in qualitative research studies that rely solely on single sources of data. In this work there are a number of instances where the stated beliefs of teachers and students about what they value about writing instruction and

the ways that they see technologies as useful in the classroom at times can be seen as being in conflict with their enacted practices in the classroom or in their written work or responses. Only by drawing together both interview data and classroom observations as well as data reflecting student and teacher work product are we able to fully consider how pressures toward efficiency or beliefs about Standard English conventions play out in classrooms where automated technologies play a central role. Efforts toward triangulation are perhaps especially critical in a project like this, which seeks to investigate what is, in many ways, the unseen: our beliefs and biases and about language and efficiency in schooling. Only through approaching the questions from different angles and in different settings are we able to put together stated beliefs and enacted practices to draw meaningful conclusions and findings.

Researcher Subjectivities

In any qualitative research study, the presence of the researcher and the personal histories and experiences that individual brings to the study must be examined and surfaced to further address concerns about validity of the work. This idea sometimes rests uncomfortably in scientific inquiry, where notions of subjectivity—of the individual’s influence, the personal backstory—most often have been cast as a negative force, a bias to be excised rather than surfaced and explored. As discussed by Willis (2007), the ideal of empiricism in research and the long privileging of (supposed) objectivity in academic inquiry has reinforced a persistent myth about neutrality in science and the belief that researchers somehow are able to “separate the feelings and opinions of the mind from the real or physical world” (p. 43). In contrast, the emergence during the twentieth century of critical theory and postmodern approaches to research have brought to the fore

discussions of discrimination and bias within social structures and sought to acknowledge those tensions and power dynamics within the research process (Willis, 2007).

I locate this case study within the latter tradition, and I recognize that to do this work in this way requires addressing one's own subjectivities and attempting to recognize how these personal views and histories might block understanding as well as build it (Merriam, 2009; Peshkin, 1988). My background as a teacher and my own research and academic interests have centered on how adult learners make sense of college writing and reading requirements, often in the context of courses designated as basic, developmental, or remedial, and at the site of two-year community colleges or open-admission, four-year institutions. While college remediation frequently is cast as a problematic purgatory for students deemed not able to do the work or as an economic burden for taxpayers and public institutions, I do not see the students who find their path into higher education through developmental coursework as academically unable or unwise investments.

From my own prior teaching experiences, and specifically from teaching developmental literacy courses in a community college setting, I am aware that many students come to the classroom with broad goals for themselves and that what they encounter in college remedial coursework can seem to hold little connection to the various ways that they were seeking to write themselves into the storyline of higher education and the professional world. This personal history influenced the direction of the current project as well as the lens I brought into the classrooms that are the focus of this study. What I was perhaps inclined to look for—and, then, what I was most likely to *see*—are the ways that students placed in postsecondary remedial classrooms happen to be deeply savvy readers of the socio-political contexts of schooling. These students are

skillful and canny users of language in their personal lives and work away from the classroom, and, when invited, they display and adapt those literacy practices in sophisticated ways.

In recognizing these patterns, though, I also recognized that I could risk missing other themes and other stories of how adult students value school and use literacy in their lives. Importantly, because my teaching work and graduate studies have led me to see Standard English as over-emphasized in college remediation contexts, I have sought to avoid minimizing the ways that students themselves value access to the language structures of what Delpit (1988) most prominently has described as the “culture of power.” Students come to adult education contexts with long histories of being told that their written work, spoken language, or reading patterns are somehow problematic, and they come, in part, wanting to know simply how they can make it right. Likewise, I have sought to make space for the very real economic and materials needs that bring many adult students to postsecondary studies and time pressures they face in completing a degree or certification in order to pursue career and professional pathways.

As an instructor myself—one who happened to be teaching a course in professional communication at the same time I was collecting data for this project—I was also alert to the many time and economic pressures faced by the students as well as by the instructors who participated in this project. Even as I sought to investigate how long-standing beliefs about social efficiency in education continue to shape and direct teaching and learning, I recognized as well the many demands on teachers to shape instruction in ways that were conscious of restrictions of time in their students’ lives and in their own as they juggled multiple classes and other administrative and personal responsibilities. Instructor

Anderson, for instance, taught two sections of the three-hour Academic Literacy II course back-to-back on Mondays and Wednesdays, meaning she was teaching for six hours stretches with just a 10-minute break between classes. There are practical considerations when we think about the tensions of efficiency and what gets taught and how in classrooms, and I have sought to make space for those very real factors in the analysis of the data and in the findings presented here.

CHAPTER FOUR
“Guess and Go” Grammar:
Technology’s Authority Over What (and How) Students Learn about Language

INTRODUCTION

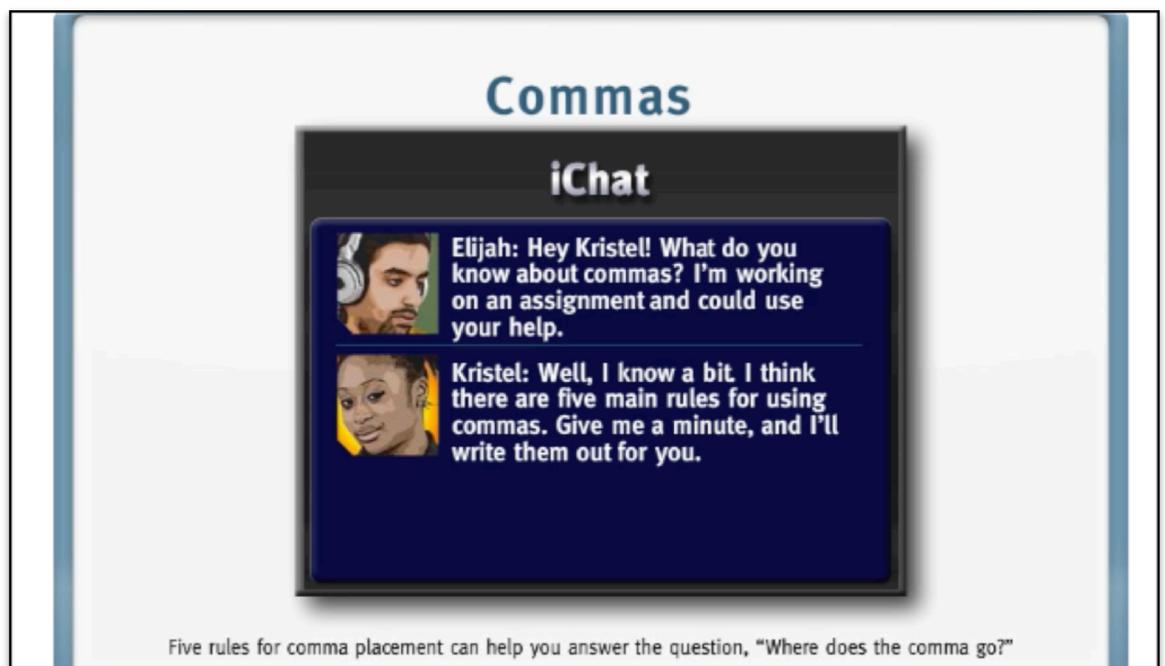
It is a late Wednesday afternoon in the middle of October, not quite halfway through the fall semester at Regional Community College (RCC). In a second-floor classroom in one of the low-slung buildings on the sprawling campus, Instructor Ellen Anderson announces to the students in her Academic Literacy II course that the class is going to begin a new unit on comma placement in academic writing. Like other lessons focused on language mechanics and usage in this course, the unit on commas is tightly built around features of the automated online instructional system, Pearson’s *MySkillsLab*, which students use to review usage rules, complete practice drills and quizzes, and complete a final scored test on the topic.

At colleges across the country, and especially at community college campuses like RCC that offer remedial coursework, automated teaching tools such as the *MyLab* system have attracted attention in recent years as a way to speed and standardize instruction in basic writing classes, where questions about how to teach students about grammar and language usage have long been a subject of debate. Instructional technologies focused on writing instruction can provide lessons on discrete rules about language usage, and they are able to instantly assess whether students are able to

determine “right” answers on activities and quizzes related to those rules. But computer systems are not able to consider the many ways that a grammar “rule” might in fact be merely a stylistic preference or subject to debate among writers, linguists, or, perhaps especially, among writing teachers and their students. And as Instructor Anderson introduces the unit on commas on this October afternoon, the fixed lessons of an automated instructional system quickly come into awkward conflict with attempts to explore the complexity and nuance of language and editing conventions.

“So what we’re going to do with commas today, to get started, is we’re going to look at the *MyLab* video,” Instructor Anderson says. As she speaks, she leans over the computer at her desk and clicks to start a brief, animated tutorial from *MyLab*. The video opens with an image of two people chatting online about how to use commas and suggests that there are five comma rules that students should follow:

Figure 4-1: *MyLab* Comma Introduction Screen



On the screen at the front of the classroom, those rules follow in seemingly unassailable order, instructing that commas can be used in these specific ways:

- To separate items in a series.
- To set off an introductory word or group of words in a sentence.
- Before the words *and*, *but*, *for*, *nor*, *or*, *so*, and *yet* when one of those words joins two independent clauses.
- Before and after a word phrase that interrupts the flow of a sentence.
- To mark direct quotations.

Instructor Anderson pauses, stopping the animated video mid-frame, and she suggests to students that it might not always be that simple.

“So what we’re finding is, the textbook and the *MyLab* limit commas to five rules. Something I want you to know about commas is there are many other rules about commas, too, and sometimes there are disagreements,” Instructor Anderson pauses and looks around the room. At their desks, the sixteen students in the classroom on this day shuffle the books and papers in front of them and shift in their seats as their teacher offers an example on the classroom whiteboard, borrowing the name of one student, Paige, a quick-witted young woman who is balancing coursework at RCC with a full-time job waiting tables at a regional Italian restaurant chain. Instructor Anderson writes:

Paige is smart, funny, and quirky.

As the class laughs—the statement is true enough—Instructor Anderson steers the students’ attention to the second comma in the sentence. Outside the walls of the Academic Literacy II course, the use of the Oxford comma, placed after the penultimate item and before the conjunction in a list of three or more items, is a regular source of debate among language scholars and writing style mavens. The Oxford comma is required by some style guides and scholars and dismissed outright by others. But in the

MyLab video, there is no mention of that wider debate or what it might suggest about beliefs about language and correctness. Instructor Anderson pauses for a moment to introduce the idea that the rules outlined by the classroom technology system might not be the rules for every situation.

“*MyLab* and *Grammar Matters* [the course textbook] tell us that there has to be a comma here—after ‘funny’,” Instructor Anderson tells the students, returning to the example sentence about Paige. “Something to know, though, is that sometimes this rule is argued, and some people will say, ‘Eh, you don’t need that comma before the *and*.’ I was taught to use the comma, but some instructors or books will say you don’t need it.”

She pauses again. The students look back and forth.

“So what should we do?” The question comes from Michael, an easy-going student who enrolled at RCC at his parents’ direction and wants to work as an officer with the state’s Department of Natural Resources when he finishes his associate’s degree.

“When you have discrepancies, the main thing is you want to remain consistent,” Instructor Anderson responds, delivering the same sound advice that many writing teachers offer students. But in this course, as this chapter will explore, what counts as correct in terms of language usage, grammar rules, and language conventions is what counts as correct within the *MyLab* courseware, a fact that ultimately influences what gets taught in the course and how students respond to those lessons. As she finishes her introduction to commas, Instructor Anderson guides students to that bottom line: “Here, in *MyLab*, you want to use the comma. That’s what the *MyLab* does.”

NEW TECHNOLOGIES AND AN OLD DEBATE: GRAMMAR IN BASIC WRITING

Across the history of college writing remediation, one long-standing tension of

the work has been around the teaching of grammar and the conventions of edited Standard English. As shown in the Chapter Two, attempts to automate basic writing and literacy instruction across generations have been built largely on the premise that improving students' readiness for college depends on improving their mastery of discrete basic skills and the "rules" of formal, edited English. More generally, discussions around literacy remediation—as framed by instructors, administrators, textbook publishers, and policymakers—commonly conflate notions of academic preparedness with the ability to easily control the conventions of written Standard English.

What is meant by "grammar" in these discussions is almost always a focus on *prescriptive* grammar, or what the English scholar Patrick Hartwell (1985) has described as "linguistic etiquette" (p. 109), and what the linguist John McWhorter (1998) has called "counterintuitive, party-pooing bizarrerie" unrelated to the study of *descriptive* grammar that explores how patterns in languages allow speakers and writers to make meaning. It is the former, McWhorter (1998) writes, that has "spread linguistic insecurity like a plague among English speakers for centuries . . . and distracts us from attending to genuine issues of linguistic style in writing" (1998, p. 63). McWhorter and Hartwell, joining other scholars across the last half century, have pushed for a broad re-thinking of the centrality of formal instruction in direct grammar in classrooms. But the tension around whether and how to teach grammar in writing courses remains contested, and that is especially true in the context of writing courses labeled as basic or developmental.

Indeed, a prescriptive focus on grammar and language conventions has long been a source of contest in the subfield of composition studies known as basic writing, which emerged in the 1970s alongside college access programs intended to help desegregate

U.S. colleges and universities. Early scholarship in the new field was widely credited with shifting discussions of remediation to more broadly consider the social and cultural contexts that shape student writing and understanding of language. Yet, even what is regarded as the foundational text of basic writing scholarship—the 1977 text *Errors and Expectations: A Guide for the Teacher of Basic Writing* by Mina Shaughnessy—adheres closely to the idea of basic writing instruction as instruction intended to identify and correct “error.” Shaughnessy’s text is devoted to tracing the pattern and logic of errors in placement essays from students who were part of open admission policies that began in the late 1960s. It also prescribes a fairly traditional fix: a three-semester course sequence addressing issues of syntax, punctuation, grammar, spelling, vocabulary, order and development, academic forms, and the writing process is suggested to help students adapt to language expectations of college courses and the workplace (1977, pp. 285-286).

From the early discourse of basic writing through today’s policy debates about remedial courses, the argument that basic writing instruction should, primarily, focus on mastery of Standard English conventions is repeated so frequently, and challenged so rarely, that it exists in many contexts as an uncontested truth. Tracing that pattern in “The Language of Exclusion: Writing Instruction at the University,” literacy scholar Mike Rose argues that the impulse to restrict writing instruction to grammar instruction can be seen as an attempt to “offer a method—a putatively objective one—to the strong desire of society to maintain correct language use” (1985, p. 345). Rose suggests that this move to limit writing instruction to the measurable mastery of standardized language practices also can be seen as a response to calls for greater efficiencies—or, as Rose write: “A scientific-atomistic approach to language, with its attendant tallies and charts, nicely fits

an economic/political decision-making model. When in doubt or when scared or when pressed, count” (1985, p. 346). Rose describes the resulting remedial pedagogy, long repeated in basic writing classrooms, as reflecting a “*mechanistic* focus on error” (1985, p. 358, emphasis added), one tied to notions of scientific measures of efficiency.

A generation after Rose (1985) linked grammar instruction to social efficiency theories of education, the arrival of automated instructional systems invites new consideration of how grammar instruction is framed and executed in basic writing classrooms. Courseware technologies, like *MyLab*, are cast as efficient classroom aides that can allow students to complete grammar reviews at their own pace or, in some instances, outside of the classroom and with minimal instructor oversight. Indeed, in the case study presented here, the instructors and the chair of the English Department all said that they hoped the classroom technology system would help to streamline grammar instruction in developmental writing courses and allow more time for other writing instruction and activities around composing.

Yet across the semester of the Academic Literacy II course that this study follows, the pattern that emerged was one where direct grammar instruction, as framed by the classroom technology system, assumed a central role in the course. In this chapter, I argue the *MyLab* system influenced course structure and content in three distinct ways:

- The courseware directly shaped the course curriculum by directing what got taught about grammar and language usage and in what ways, even when those approaches conflicted with the instructors’ own ideas or expertise. And while the *MyLab* system was intended to help streamline grammar instruction and make

- classroom work more efficient, instructors said the system generally consumed more time than they would otherwise spend on some topics.
- Students generally responded to the automated lessons on grammar and usage in two narrow ways. For many students, the lessons reinforced beliefs about academic writings as something to be “corrected” or “fixed” in order to be successful. More broadly, students viewed the lessons as busy work to be completed as quickly as possible, and they said they did not always see connections between the online lessons and development of their own writing.
 - The technology restricted exploration of language and rhetorical choice by framing grammar instruction as mastery of an inflexible set of rules. Students and teachers were reluctant to directly challenge the authority of the technology or to substantially complicate its black-and-white messages about language.

This chapter also points to moments of pushback that, even if rare, suggest ways the technology’s dominance in the classroom might be harnessed for more authentic exploration of how language works and how it can allow students to write their way into the spaces and arguments that matter to them.

AUTOMATION’S INFLUENCE OVER COURSE CONTENT AND STRUCTURE

The *MyLab* system was intended to be a supplemental tool in Academic Literacy II, according to the English Department chair and the course instructors I interviewed. When the campus elected to use Pearson’s *Grammar Matters* textbook for the course a few years earlier, the department was offered the option of including access to *MySkillsLab* without an additional charge to students. The English Department chair explained to me that in making the decision to incorporate the *MyLab* system, she hoped

it would provide interactive features to make lessons in grammar and mechanics more engaging for students. She also was interested in the ability of the system to provide detailed data about student performance for analysis by the department and college administrators that could inform decisions about the structure and success patterns of developmental coursework at the college.

Both the department chair and the instructors who participated in the study emphasized in our conversations that they viewed instruction in grammar, usage, and mechanics as just one facet of the course. In interviews, the chair and instructors said that helping students to gain confidence in their writing and to develop the ideas, organization, and clarity of their academic writing was the primary objective of writing instruction in the Academic Literacy II course. Yet the enacted practices of the course stood in contrast in significant ways to those stated beliefs. Across the semester I spent observing the course, online work on the grammar modules was a central feature of each week of the course. The automated instructional system directly informed what usage topics were addressed in the course and how class time was structured. The use of the technology system also required instructors in some instances to adjust their lessons to echo the language that the system used to describe usage rules and to score student work.

Across the fourteen week semester, which was comprised of 30 class sessions, including class days for mid-term and final exams, all instructors who taught Academic Literacy II were required to have students complete ten lesson modules in the *MyLab* system, covering the topic areas shown in the table below:

Figure 4-2: Writing Instruction Topics Addressed Through *MyLab*

Area of Instruction	Module Lesson in <i>MyLab</i>
Grammar and Usage	<ul style="list-style-type: none">• Sentence fragments• Run-on sentences and comma splices• Pronouns and point-of-view• Subject-verb agreement• Commonly confused words
Mechanics and Punctuation	<ul style="list-style-type: none">• Comma usage• Apostrophe usage• Quotation marks
Essay writing	<ul style="list-style-type: none">• Forming topic sentences in paragraphs• Developing and organizing paragraphs

The required modules, part of a standard course syllabus, typically were covered during a portion of one or two class sessions. As a regular practice, both Instructors Anderson and Bennett started each three-hour class session in a classroom without computer access, and they used roughly the first third or half of available class time for discussion of the common course text, a memoir about a volunteer’s experiences with AIDS orphans in Cambodia, and to discuss reading and note-taking strategies. Each instructor also regularly used class time outside of the computer lab to preview the grammar or usage lesson that students would be asked to work on during the second half of the class, which was dedicated to time in the computer lab either for work on essay assignments or for completion of *MyLab* modules. Assessments conducted through the online system, which are discussed at length in the next chapter, also consumed a significant portion of instructional time as instructors were required to conduct a series of diagnostic tests in the opening weeks of the course and again in the final week.

Taken together, these various lessons, activities, and evaluations occupied space in the Academic Literacy II course that reached well beyond serving as a supplemental

support for understanding grammar and usage. Rather, the technology system directly influenced what was taught in the course and in what ways. In the example of the comma lesson that is shown at the beginning of this chapter, Instructor Anderson's overview is shaped in distinct ways by the authority of the *MyLab* system. She attempts to show students the myriad ways that commas can be properly used and, as well, contested. Yet she also wants students to do well as they work through the *MyLab* lesson that more narrowly construes comma usage. Instructor Anderson nodded to this tension in an interview near the end of the course as she sat in her campus office, overlooking one of the crowded parking lots that dotted the commuter campus.

“I would rather see great ideas and clear language in my classes... Yeah, I worry about that,” Instructor Anderson said. “Are they thinking that when we're working with the *MyLab* that the most important thing is getting a pretty paper—what I think of as a pretty paper, where their ideas aren't there, it's really superficial? I worry about that. Then with the *MyLab* in the classroom, I worry maybe they think that's the number one thing that they have to do.”

Instructor Bennett reflected on similar constraints as she sought to match her teaching practices to the specific language and descriptions of grammar and usage rules framed within the *MyLab* system. In an online lesson about organizing paragraphs, for instance, the *MyLab* system referred to the main idea of a paragraph as the “controlling idea” and the topic of the paragraph as the “limited topic”—phrasing that Bennett said she would not normally use and that students puzzled over in completing the module quizzes. As she walked students through the various components of a *MyLab* lesson module for the first time, Instructor Bennett was explicit with students about the

importance of noting the specific terms used within *MyLab* to discuss various concepts: “You have to familiarize yourself with Pearson’s terms so you can pass the test.” In a conversation before class a few weeks later, Bennett shared with me her frustration with the ways that she found herself bending to the technology system rather than following her own instincts in the classroom.

“I don’t give a damn if they know, ‘This is the ‘limited topic’ or the ‘controlling idea’. What I care about is, do they know where things go?” Bennett said, ruminating about the possibilities and limitations of the system for addressing matters of structure and mechanics in student writing. “I embraced the technology because I thought, maybe I’m doing my students a disservice. I always graded them based on content and structure and ideas. I figured if you didn’t know grammar, go look it up in a book or use a grammar checker. I was interested in their ideas. I always used to teach from the gut: What are your ideas? What do you put out there? I don’t know. The technology, I’m very ambivalent about it at this point.”

And yet, as Bennett pointed out in a conversation near the end of the course, it was the technology’s attention to grammar and usage that would be a dominant feature of data collected about the developmental literacy courses through the *MyLab* system and used to assess and structure remedial courses: “It’s ironic, because all the data from the *MyLab* system is showing is grammar, and that’s just a small part of the overall objectives of the course. That doesn’t show everything, but that’s what they’ll see.”

In her end-of-term interview, Instructor Anderson said she still saw *MyLab* as a valuable tool for the course that helped students with grammar and usage lessons as well as with with technology use more generally. But she also shared concerns about whether

the automated system and its narrow attention to mechanics overshadowed other aspects of the course and, perhaps, her own role as instructor in the classroom:

Instructor Anderson: I found that at the end of this semester I questioned myself a lot as to whether or not I relied too heavily on it, or I struggle with, “Okay, well, now they’re working on it. Is that okay? I’m not doing anything.”

Gail: Okay. Can you talk me through that tension just a little bit?

Instructor Anderson: Yeah. Sometimes a big tension for me is, “Do I rely on it too heavily?” and if one student finishes before another student, do I let that student go and leave the classroom when I’m supposed to keep them the full time? Do I save it for the end of class when they’re starting to hit that slump? Or do I do it at the beginning?

I have a tension regarding when they’re working on it, what should I be doing? That makes me incredibly uncomfortable in the classroom when I’m not doing something.

Then also when we see the students working together, I think, “Well, are they really getting it?” and should I let them work together? Should I make them work separately? Sometimes I see them getting it with one another and then explaining it in a language that they understand, but then I worry about retention. Are they really retaining it? Are they going to be able to apply this in their paper?”

In their worries about class structure and the role of the online learning modules, both Anderson and Bennett gesture to what is perhaps a surprising point about the *MyLab* system used in Academic Literacy II: rather than functioning as an efficient, time-saving tool for classroom instruction, it often had the effect of consuming more time for instructors both inside and outside of the classroom than they say they otherwise would have spent focusing on grammar instruction

Instructor Anderson worried out loud in an interview that the central role of the technology in the course, and its focus specifically on grammar and usage, meant there was less time for other facets of writing instruction: “One thing I’m thinking of is the grammar, we have so much other coursework that we need to do that sometimes I say, where do I find the time to do this coursework?” Before class one October morning,

Instructor Bennett was combing through her records on the class and, worried, she noted that one student in the course had turned in almost none of the required homework or assignments more than a month into the course. Out loud, she wondered whether students could be overwhelmed by the volume and range of the work that the course attempts to cover through the online system. “The technology allows us to do a lot of different things,” Instructor Bennett said. “But then you wonder if you are trying too much.”

STUDENT APPROACHES TO ONLINE LESSONS: “GUESS AND GO”

Students in the Academic Literacy II course generally began the term with bleak appraisals of their own writing abilities, and those judgments most commonly connected to the perception that they did not fully know the conventions of edited Standard English. In interviews, students commonly talked about improving their “grammar” as the primary way to improve their overall writing. Yet, as I explore next, even as students voiced concerns about improving their command of usage rules and standard language conventions, they also drew few connections between their own writing development and the online grammar and usage lessons.

Students’ self-assessments at the start of the course provide important context to considering how they responded to the online grammar instruction in Academic Literacy II. Again and again, students in the initial study interviews, described themselves as poor writers, and these self-critiques often seemed to echo specific feedback about usage error that students had absorbed from prior school experiences. Alisha, a 17-year-old student in Instructor Anderson’s section who aspired to work in computer science, sighed when I asked in an early interview about her goals for the course:

Alisha: I want to write papers that higher-up people approve of. I like my papers,

most times, but then teachers don't. I just want to improve that.

Gail: So you're getting feedback that there's stuff to work on?

Alisha: Yeah.

Gail: What sorts of things?

Alisha: Grammatical errors is the biggest one that I get.

Sarah, 18, a student in Instructor Anderson's course who was co-enrolled at a nearby four-year university while completing developmental coursework in writing at RCC, was more specific about the "error" that plagued her writing and her self-assessment of her writing ability. The culprit, she had been told by prior teachers, was run-on sentences. "I'm not the best writer, and I am scared, in a way, of—'cause most of the classes, well, I failed a couple classes growing up," Sarah said. "On my writing, I tend to have very—well, a lot of run-on sentences, like non-stop run-on sentences."

In Instructor Dee Bennett's course, the student Maggie, who had traveled widely with her family as part of church missionary assignments, stood out from the first days of the course as a bright, engaged, and curious student. But when I asked her in an interview at the start of the semester about her confidence in her own writing, 18-year-old Maggie shook her head and rolled her eyes. "I'm like zero percent confident about it all," she said. "I never turn in anything without having someone check it first, and then still they miss like half of it, and I still get marked down for grammar."

Another student in Instructor Bennett's section, Claire, 19, shrugged off the question of how confident she felt about her own writing. "Not very," she said flatly in an interview a few weeks into the fall semester. "I never feel like it's good enough. Always, I don't think I'm going to get good grades on it anytime I write anything."

Gail: Are there any particular aspects, either feedback you've gotten from teachers or just concerns you have within your own writing, that make you feel that way?

Claire: Yeah, I mean, just I'm writing—getting marked down for run-on sentences. Every time I get a paper back, it's the same thing.

Feedback that students had received in earlier school experiences about grammar and usage in some instances influenced their thinking about what it means to write well. Kevin, 25, a student in Instructor Bennett's section, was dutiful about the course from the first weeks even as he struggled to balance the demands of a full course load at RCC with his job working 30 hours or more each week as a cook at a nearby private golf club. In interviews, he shared that he wanted to pursue a career in sports broadcasting and that he often wrote short, creative stories for his girlfriend.

“I've always had the ability to gab, I guess, and to write. That's one of the abilities I've always had,” Kevin told me near the beginning of the semester. Then he relayed a story about a high school writing assignment that, for him, had cemented the connection between good writing and “correct” writing. “To put it this way, in my English class my senior year, I got my last essay that we wrote in class. I did my essay, and I turned it in. My teacher gave me 100 percent on it, but it had a note on it. The note said, ‘If I check for grammar and spelling mistakes and all that, you would have had a 77.’ It's something that I've always known—always remembered.”

I told Kevin I found it interesting the episode stood out to him so clearly given it had been more than six years since that high school class. He was unhesitating in his response, which at once suggested awareness of broader rhetorical concerns such as audience in writing but then returned more urgently to sentence-level matters, merging ideas about grammar with matters of punctuation and spelling.

Kevin: It made me realize my grammar was horrible. With someone who loves to write stories and that stuff, it's always been something that I want to improve on and especially because it's something I want to go into—one of my passions in

life is sports, talk and sports writing and all that. To be a beat writer you have to have a good sense of the English language. You have to be able to convey an audience a point without running on.

Gail: Are there any specific aspects of writing that you're hoping to work on in this class?

Kevin: The main thing I want to work on is understanding when to use a comma or a—I'm trying to think. Semicolon. I'm becoming a little better, understanding it now, just since the beginning of the class. Also I would love to work on my grammar in terms of spelling. I feel that one of the biggest issues I have is sounding out the word. I tend to speak faster than my mind thinks.

In these responses to questions asking about overall goals for the course and confidence in their own writing, students demonstrated some of the ways that beliefs about the primary importance of “correctness” in writing can loom over students and influence their ideas about good writing. Here, Kevin’s response stands out: he at once imagines a possible career for himself working as a writer and he actively engages in writing in his personal life. Yet his concerns as he discusses writing in the context of the required developmental course focus not on ideas about audience or ideas or voice but on narrow mechanics such as commas and semi-colons.

This concern with getting academic writing “right” in terms of prescriptive language conventions in some ways shaped students’ general acceptance of the use of the online lessons because of the immediacy of the right-or-wrong feedback that students received through the technology system. In several instances, students said that they liked that the automated lessons allowed them to quickly know if they were “right or wrong.” Sarah, the student in Instructor Anderson’s course who described her primary challenge in writing as correcting run-on sentences, summarized the response of many students to the online system in this way: “I just think they’re really beneficial, ‘cause it’s like, ‘Here’s a paragraph. Find this, find that.’ If you get it wrong, then you know.” In other

instances, students said that they valued automated responses on drills and quizzes because they considered the computer to be more objective and more clear cut, in some cases, than feedback from an instructor.

Across the term, though, many students candidly told me that they saw the online work as primarily busy work, and their primary concern was how quickly they could complete the *MyLab* lesson modules. These responses appeared to be driven by a few factors: students said they did not always see connections between their own writing and understanding of language, and, in other instances, they simply doubted the utility of the automated lessons. Here, for instance, the student Derrick in Instructor Bennett's course describes his approach to the work:

Derrick: It's all right. It's a good source of getting information and everything across, but being I'll sit on a computer, going section to section, by the time you get to that post-test you're like, "I'm just going to answer a few questions." If you get closer to the end of it you're just clicking.

Gail: How do you mean that? That's interesting. I think I know what you mean just from watching students do it, but talk me through that.

Derrick: Yeah, it's like you're not really interested in it anymore after so long, because you're doing them about every other day so you already know what you're getting into. It's not nothing new.

Gail: When you say "you're just clicking," what do you mean by that?

Derrick: You're just clicking, as in like, just answering, but you don't even read the full question or the passage. You'll read some of the passage and just get bored by it, and jump right to the questions and go find that question. You're really not understanding what the passages talk about. You're just looking for answers.

In his responses, Derrick voiced an approach that I also watched many students in each class section take up across the semester. Given time in class to complete the online modules, students would commonly jump ahead to the scored quizzes without reviewing the material. As Derrick described, students commonly appeared during class sessions to

be “just clicking”—working their way through the lessons to get credit for completion.

Shauna, another student in Instructor Bennett’s course, explained that approach this way:

“I feel like I’m just trying to rush through it real fast. . . . I’m not gonna invest a ton of time in it. I’m just playing, like, knock it out real quick. You know what I mean? That specifically, I don’t think that I see a result in my writing.”

In Instructor Anderson’s course, the student Michael also said he saw the online work as something to be completed as swiftly as possible, an approach driven by his belief that the automated lessons were not as useful to him as class time spent with the instructor either in discussion or working through practice examples of usage issues.

“The computer doesn’t really—it tells you what you did wrong. It doesn’t tell you how to—it tells you how to fix it, but I mean it really doesn’t to me. I read it, and then I just—” Michael pauses and shrugs. “And then I try again, and I just get it wrong again. I would rather a teacher come and help me with a different problem, and make sure that I know. I just feel like the computer is really unreliable.” Later in the conversation, I ask Michael what his approach was within the online modules when he receives a response that his selected answer is “incorrect” or if he is stumped on a particular question. Did he review the grammar book? Go back to re-watch the animated overview in *MyLab*? His reply: “If I get too frustrated, honestly, I just guess and go.”

The Answer in the Lesson on Commas: “It Just Sounded Right, I Guess”

The lesson on comma usage that opens this chapter illustrates some of the complicated tensions between student and instructor beliefs about the role of grammar instruction in writing development and the ways students actually used the system in the class. Throughout that day’s lesson, Instructor Anderson shifted between her efforts to

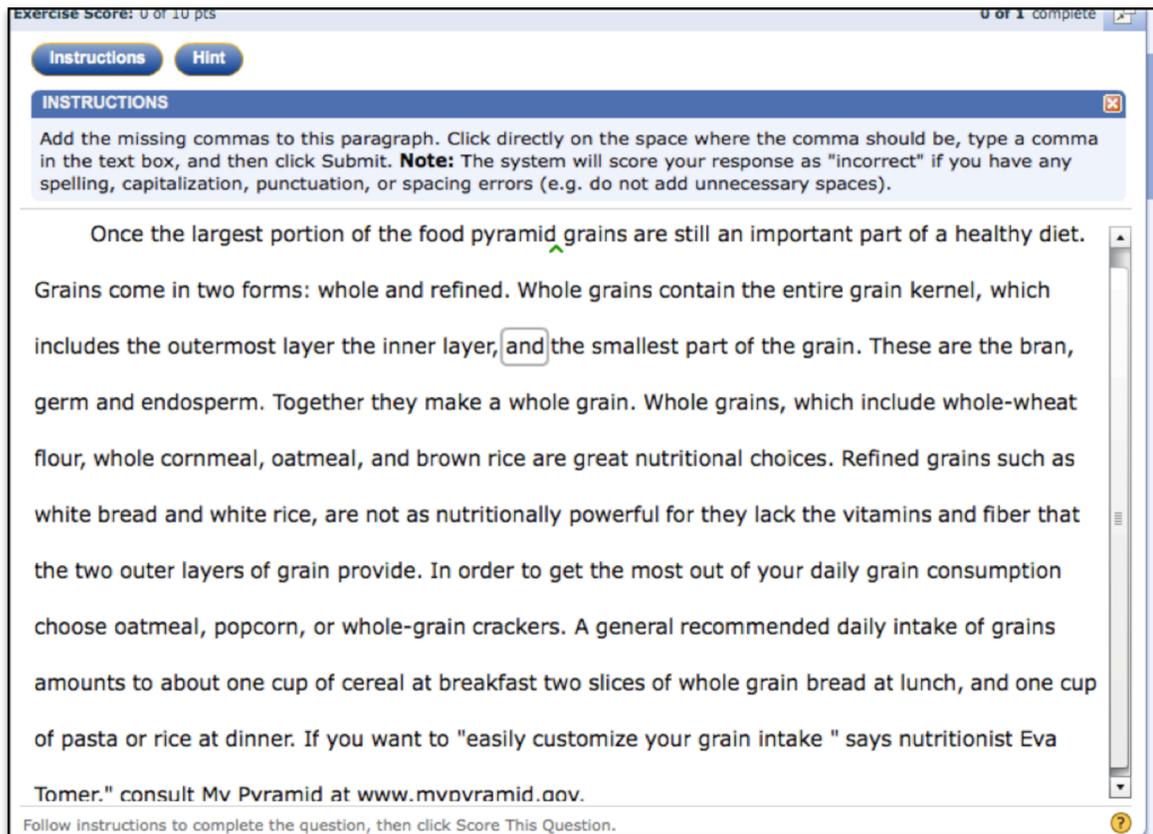
help students recognize the gray area that surrounds even a single point of usage in the English language, such as comma usage, and her concern for making sure students could succeed as they worked through the automated quizzes and tests that make up *MyLab*, where topics as well as questions and answers were framed in black or white.

As with each of the *MyLab* modules, the online lesson for the comma unit presented students with a series of activities. In every module, students begin with a text overview of the topic at hand. Next, they can watch an animated video version of the overview. To practice the skill or rule that is the focus of the lesson module, students then complete two, ten-question multiple choice quizzes. The modules then link to an activity that asks students to apply the lesson in a block of text. For the comma unit, students had to determine where commas have been wrongly omitted in a short paragraph about the federal government's food pyramid for healthy eating. Finally, students would complete a 10-question test that is scored and recorded in the class grade book.

When they were free to begin the online work on the comma unit in the computer lab, students branched off in various directions. Some dutifully reviewed the overview and animation sections. Others jumped directly into the multiple-choice review quizzes. In the computer lab, I took a seat next to Brandon, a thoughtful 24-year-old who was attending college for the first time. Brandon did not have easy access to a computer outside of school; he would sometimes borrow a friend's laptop or if he needed to complete schoolwork away from campus. When there was an assignment to complete the online grammar modules in class, he focused on getting the work done to ensure that he would not have to hunt down a computer later. As he launched the computer's lesson on commas, he scrolled quickly through the overview and briefly glanced again at the

animation video that Instructor Anderson had played in class earlier. Brandon then turned to this activity requiring students to insert missing commas in a paragraph:

Figure 4-3: MyLab Activity on Comma Placement



At the start of the lab session, Instructor Anderson cautioned that the comma placement activity might be difficult in part simply because of the technology's features: if a student clicked in the wrong spot on the screen, they would lose points. But even a cursory glance at the activity showed that it could be difficult, as well, because of the system's unwavering adherence to "rules" about comma usage that could also be subject to debates about stylistic or editing preferences. For instance, the seventh sentence in this paragraph, begins: *Refined grains such as white bread and white rice, are not as nutritionally powerful*, and the system expects students to insert an additional comma

after the second word, grains, in order to set off the phrase containing the examples. The start of the sentence, as the system would correct it, would then read: *Refined grains, such as white bread and white rice, are not as nutritionally powerful.*

More experienced writers or writing instructors could easily argue against the using commas at all to set off the “such as” phrase, but for students working through the online lesson, there is no suggestion that the comma use might be anything other than “right” or “wrong.” And lessons that might have held opportunity for exploration of just one area where language rules are open to shifting preferences instead, for students like Brandon, became merely a puzzle of hunt and find. After he spent a few minutes staring at the passage and inserting a few tentative clicks for commas, Brandon submitted his work to the *MyLab* system and got back an immediate response: there still were 3/10 places in the paragraph where commas were needed.

“I just don’t see them,” Brandon said, shrugging and shaking his head, puzzled. He started to comb through each sentence, moving the cursor on the computer screen up and down the text, working forward and back in the paragraph, and then from the end of the paragraph to the beginning. The movements of Brandon’s cursor suggested not so much reading sentences as simply hunting for an opening—a slight extra space on the screen—that might signal a space for a comma. Although I usually sat as a silent observer while students worked in the lab during the semester, in this instance, I asked Brandon whether he thought there might be a way to apply the comma rule about quotation marks near the end of the paragraph. As shown in the screen image above, my suggestion was based not so much on punctuation rules for setting off quotes with commas but by the fact the apply activity left an odd extra space before the second quotation mark. Brandon

slid his cursor to the open space, and a green comma mark appeared on screen. “Correct.”

Brandon had found spaces for eight of ten missing commas in the paragraph; there were still two more commas to place. He shook his head again: “I just don’t see them.” He fiddled with the computer mouse, sliding the cursor around the paragraph again. As he worked, staring at the screen, Brandon did not go back to the online overview, or the handouts that Instructor Anderson shared in class, or the course grammar textbook. After a few more minutes searching, he hovered over the ‘which’ phrase beginning at the end of the second line of the paragraph and found a place for a ninth comma after the words *outermost layer* – here, the comma set off items in a series. A few minutes later, Brandon placed the last comma after the introductory word, “Together,” in the fifth sentence of the paragraph. As with the example of the “such as” clause in the seventh sentence, experienced writers and language experts might just as easily choose to eliminate a comma after an introductory word, but the system sticks closely to the discrete rules outlined at the start of the lesson.

After Brandon submitted the work, he ran his hands through his hair, sighing. I asked him how he determined where to place the last few commas in the paragraph.

“I don’t know,” he said. “It just sounded right, I guess.”

AUTOMATION’S CONSTRAINT ON EXPLORATION OF LANGUAGE

Just as the automated instructional system exerted authority over curriculum and course structure in the Academic Literacy II course, it also contributed to student beliefs about mechanical correctness as a primary goal of academic writing and about what counts as “correct.” In interviews and in class discussions, students in the Academic Literacy II course generally accepted the judgment of the automated system in

determining the “correct” or “incorrect” responses in online work just as, in the example above, Brandon was resigned as he worked through the comma exercise and processed the computer’s feedback about this answer. Indeed, the challenges I have posed about how the system is defining comma usage never surfaced in the classroom that day.

Lost in the system’s framing of “error” was any broader investigation of what matters in writing or any discussion of the ways that grammar and usage—like the act of writing itself—are socially situated and contested matters. The composition scholar Julie Cheville (2004), challenging the growing use of automated scoring technologies in college writing classrooms, argues that students are most likely to master the conventions of language as they employ those grammatical structures in the context of broader meaning making in their own written work. Cheville (2004) writes that instructors hold a responsibility to, “help students consider how social expectations in and beyond classrooms privilege certain errors more than others. What are the errors that count? Why is this so? ...Disagreements regarding the seriousness of error represent an instructional opportunity, a chance to consider the sociopolitical implications that explain divergent opinions” (p. 50).

In some ways, the rigidity of the kind of technology system used in the RCC Academic Literacy course could serve as invitation for students to consider the ways that “error” and “correctness” are social constructs, and as I explore later in this chapter, students in the course—like all of us—showed themselves to be curious about the ways language works and the reasons why the automated system reached the conclusions it did about right and wrong. Too commonly, though, the belief by instructors is that such an exploration is “too hard” for students, especially for students considered underprepared in

some way for college studies, or that it should only come after students have a firm grasp on “the basics” of grammar and usage.

Indeed, those very tensions surfaced among the participant instructors and the college’s English Department chair when they responded to the findings of this chapter. Instructor Bennett, for instance, said she would not be likely to attempt the exploration of the variation in comma rules that Instructor Anderson presents in the opening scene of this chapter because it would “just make the water muddier” for students in a developmental writing course. The Department Chair said broader exploration might be possible in later composition courses but that the emphasis in Academic Literacy course should be on basic conventions of written Standard English, and she said that the classroom technology system—used in a limited way—provided one way to measure how students absorbed that lesson. “How it is incorporated is up to the instructors,” the chair said. We want to know, in general, are we helping students to reduce errors?”

It is fair to also consider, though, how students come to understand “error” in the context of a classroom that incorporates an automated instructional system such as *MyLab* but without broader exploration of the social construction of how language functions. I suggest that the comma lesson from above offers one example of where, even within the constraints of the technology system, there might have been opportunity for challenge or critique of the ways that the automated system frames “correctness” in writing. Other examples, drawn here from the module on pronoun usage, also point to ways that the automated lessons constrained exploration of how language functions and reinforced beliefs about what it means for writing to be “right.”

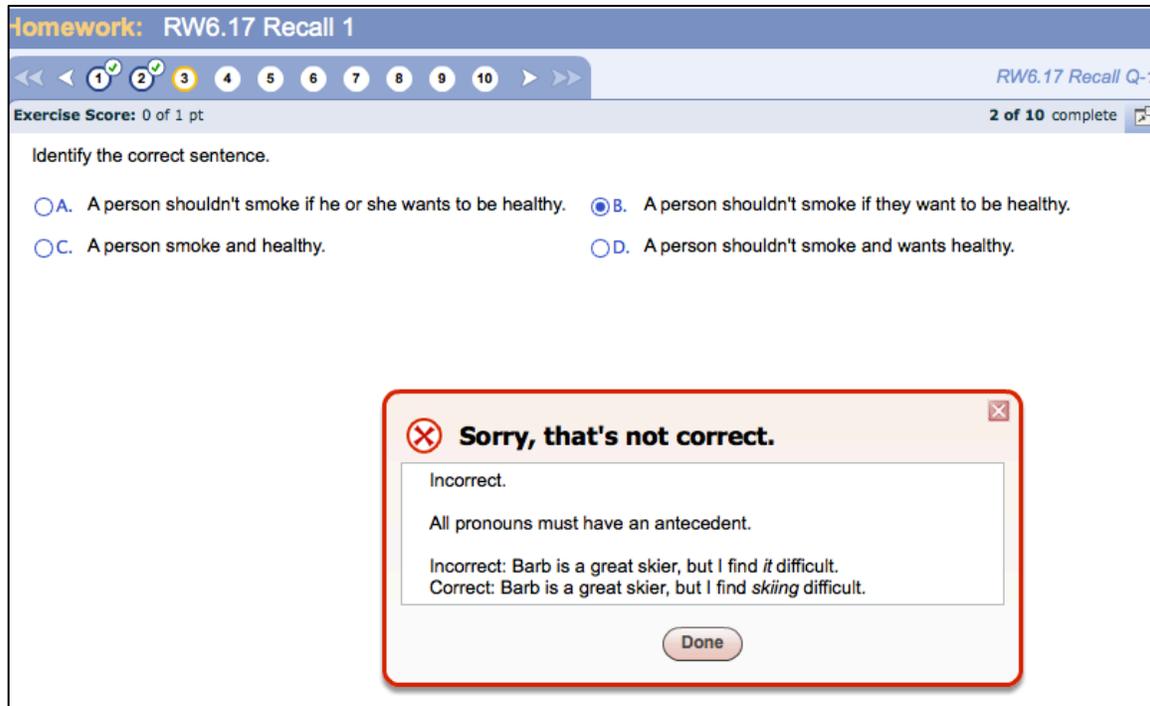
In the unit on pronoun use, the *MyLab* system instructs students that the pronoun

“they” cannot be used with a singular noun and that often it is too vague to function usefully in sentence construction. I draw attention to this point of instruction for two reasons. First, as I will show in the chapter’s final section, this lesson in particular created a moment of clear pushback for students who protested some of the questions and answers that *MyLab* included in the module. Moreover, the pronoun “they” happened to be having quite a moment in late 2015, at the same time I was immersed in the Academic Literacy II course. Commonly used as a gender-neutral, third-person, singular pronoun in spoken English, prescriptive grammar rules have long restricted “they” to use in context of the third-person plural pronoun, just as the *MyLab* system advised. However, linguists and language scholars have advocated for its appropriate use as a singular pronoun, whether to identify individuals who are transgender or who do not identify as he or she, or to identify a third party when the gender of an individual is either unknown or unnecessary to the point of the writing. In January 2016, members of the American Dialect Society voted “they” as Word of the Year, with this specific definition: “*they*: gender-neutral singular pronoun for a known person, as a non-binary identifier.”

Yet while lively debates about how “they” might function as both a plural and singular pronoun swirled in late 2015, inside the walls of the Academic Literacy II course and within the automated lesson on pronoun usage, students who selected “they” as an identifier for a single individual received a swift response of “incorrect” from the *MyLab* system. Here, I show two examples from the practice quizzes on pronoun use to illustrate the way the issue was framed for students. In this first example, I selected answer “B” on the grounds that “they” could function well as a singular pronoun here in a sentence where the person’s gender was irrelevant for the message of the sentence. (Indeed, both

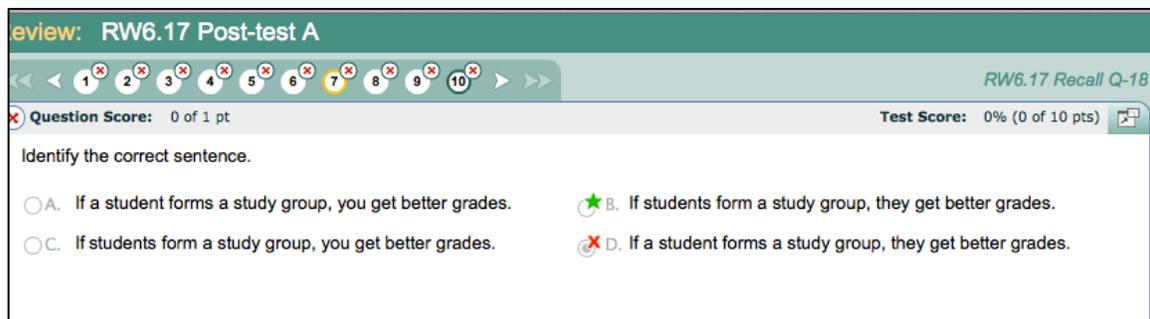
“he” and “she” probably should not smoke if they want to be healthy.) The *MyLab* system did not like my choice:

Figure 4-4: *MyLab* Review Question on Pronoun Usage



Likewise, in the example below, the system rejected my choice of the singular “they” as a pronoun identifier for how an individual student might work toward better grades:

Figure 4-5: *MyLab* Test Question on Pronoun Usage



In examples such as this, the question at hand was more complex than the *MyLab*

system allowed it to be. But the red “x,” marking an answer as incorrect, was unwavering. There was no space to explain my reasoning or to ask why the system did not reflect broader considerations about language usage. And the classroom instructors voiced repeatedly that they felt pressure to guide students to the kind of definitive “right” solutions that the technology system required. At times, Instructor Anderson said in an interview, students would ask her to explain a question in the system that they found confusing or just wrong, and she would find herself torn between offering a quick redirection or engaging in a more lengthy and extended discussion.

“Sometimes they’ll ask me a question about it and I’m like, ‘Well, that doesn’t even make sense, that question.’ I think on my end, and I’m like, ‘How do I answer this?’ It’s like this is a weird spot to be in, because *MyLab*’s saying one thing, and I would say another. What do we do about that? How do I get the student the right answer? That’s a hard spot to be in,” Instructor Anderson sighed and sat back for a moment. “Yeah. Trying to explain that to them that sometimes this doesn’t work or sometimes it’s different, that’s hard. I don’t know if they grasp that. Then I wonder, ‘Well, should we segue into a different conversation.’ Then it takes more class time. Do some students even care or want to know?”

In the interview with Instructor Anderson, I directly raised the idea of the system’s authority over the instructor in such moments. She nodded in agreement: “It does have a lot of authority. Now that you say that, I would say that, as the instructor, I bow down to the system sometimes. I don’t even want to question it.” She laughed briefly. I asked her why she thought that sometimes was the case, and in her answer, Instructor Anderson circled back to concerns about her own authority on this aspect of

writing instruction, the space in which the technology system shows no hesitation.

“It’s there. It’s quick. It’s easy. They’re working on it. That tension of, “Well, do I get into this whole conversation?” and knowing that sometimes I’ll talk myself into a circle in trying to explain all of these different instances to it or even verbalize it. I might know it as a writer, but trying to get that out there in a language that they’ll understand, I’m not quite sure that’s my strong point.”

Students in the course wrestled with some of the same issues. In many instances, they simply wanted to know that the work they were doing was “right” and they saw the swift feedback from the computer as a firm, neutral arbiter. Caroline, a 19-year-old student in Instructor Anderson’s class who hoped to build a career as a photographer or animator after transferring from RCC to a four-year university, was hesitant throughout the term in her assessment of the *MyLab* system and its use in the course. Caroline preferred to work through ideas with a pencil and paper, she said, and that felt in conflict with the online module work. But one thing she did appreciate, she said in an interview early in the term, was the machine’s straightforward and unwavering responses: “So you know that you’re doing something right or wrong. So then I can fix it, and I can make it correct. Then the next time I’m going to write, I won’t make that mistake again.”

Caroline saw little opening to question or challenge or discuss how or why a “correct” answer was correct. And, for the most part, that was okay: the goal, many students said, generally was to quickly “fix” any errors identified through the automated system and, in turn, to improve their overall writing ability. Still, though, Caroline wondered: couldn’t there be a way for the system to respond more directly to her own writing than only through multiple-choice answers? “I feel like if we were to be able to—

if it says, ‘Here is your information. Put it in a sentence.’ ... I just think it'd be a lot easier, because you're actually physically doing it and putting it together. Whereas if you're just reading it, then you're just reading it and figuring what it is. Whereas the other way, you're figuring out how to make it that way.”

At various points, other students likewise expressed conflict over how to balance the specific, unequivocal responses of the automated lessons with their own innate sense that there could be more nuance or room for discussion around many of the topics addressed in the online lessons. In their responses, students at once accepted the authority of the automated system, but they showed their own curiosity about language and learning. Early in the semester, I asked Shauna, a 19-year-old in Instructor Bennett’s course who hoped to work in special education, about her general reaction to the online lesson modules in *MyLab*. Her response suggested both a belief in the accuracy of the system but also skepticism about what more might be left unsaid or unexplained.

Shauna: I feel like yes and no about it. It just depends on what assignment I’m doing, because I feel like, you know, computers is always a standard. There’s no way to work around it, I feel like.

Gail: Mm-hmm. That’s an interesting way to put that.

Shauna: I feel like with the teachers, they can kind of be like, “Well, yeah, I can see that, how you used that.” Or “Well, yeah, I can see how you connect with that,” and kind of give you a pass on it. I don’t know. Then sometimes, I feel like with the computer, maybe sometimes they’re *more* right than the teachers, do you know what I mean?

Gail: I was going to say, what’s the ‘yes’ side of your answer?

Shauna: With the computer, they could be more right than the teacher sometimes. I mean, you want a better grade and stuff. ...Like where if I chose something that the teacher maybe felt like it didn’t quite fit her standards or his standards, and maybe with the computer, it was like, “Yep, that’s correct.” Kinda just simple like that.

Shauna’s response is a complicated one. She was at once seeking the kind of clear, simple guidance that might help her earn an “A” in the course, but that was coupled

with her sense that more traditional instructor feedback could allow her to be more fully heard and understood as a writer. For other students, the lack of discussion possible in an automated lesson left them feeling as if the myriad “rules” of language use were as mysterious to them as ever. Here, the student Maggie, the former missionary worker who engaged easily in class and generally breezed through the online lesson modules, shared her concern about how to collectively make sense of the many discrete, isolated lessons contained within the *MyLab* system:

Maggie: I see why we do it, but at the same time, I feel like I would like a better explanation of everything. I feel like there’s too many rules, and it’s not a very—I don’t know. I feel like there’s so many small rules that they don’t actually ever add up all together.

Gail: That’s interesting. What do you see as the purpose for it? You said, “I see why we do it.”

Maggie: The purpose is to just learn the little rules of writing and when to do what and stuff and to actually put it into practice.

Gail: Okay. You’re saying you just wanna see more of that connective tissue, maybe, like how do those small pieces come together?

Maggie: Well, I want to know: when to and when not to. And it does show when to and when not to. But then it doesn’t show other options because it’s like, “Put a comma here.” But then there could be another option, like, to make two separate sentences. You know what I mean? I’m having a hard time with what should actually happen.

Maggie’s remark about what “other options” might exist to make her writing better raises a potentially powerful moment for considering how classroom technology systems, like *MyLab*, could be used to help students investigate language and beliefs about correct language usage more fully. Another student in Instructor Anderson’s course, Michael, wondered whether there might be ways to more directly engage about the answers that the system deemed to be correct.

Michael: Oh, yeah. There’s been multiple times where I’ve asked [the instructor] to come over. I totally thought this was right. I remember one time she was like,

“I think that’s right as well.” I don’t know, there’s just different ways. The computer is obviously programmed a different way than I’m learning. It’s just different.

Gail: How did you kind of resolve those moments in your own mind?

Michael: I was basically doing two different things. I was getting taught one thing, but the computer was doing another, so I was, like, “I’ll just do it the way the computer is, just for now, and then I’ll go back to my ways.”

For Maggie and for Michael, the automated system existed as a barrier to work around rather than a potential site for authentic exploration and learning. In these comments, they raise candid, real questions about how language works and why the automated system reached the determinations it did on various aspects of language use. Those kinds of questions, as I explore next, could point to possible ways that instructors might harness classroom technologies to make distinct spaces for students to investigate how choices in writing reflect recognition of audience, power, and authority.

A PATH FOR EXPLORATION IN A CRITIQUE OF THE SYSTEM

Instances of student challenge to the automated system, like what Michael describes above, were rare in the Academic Literacy II classrooms. But in ways that were perhaps unexpected, the same automated technology system that could be seen constraining instruction in the Academic Literacy II course also emerged at other points as a tool that offered students greater confidence in their own writing abilities—and, moreover, provided space for students to discussions about how language works. A *MyLab* lesson on pronoun usage from Instructor Anderson’s class in early November offered one illustration of this kind of challenge and possibility. I turn to it at the conclusion of this chapter to suggest that as students see space in the classroom to challenge language “rules”—using the tool of the automated online lessons—they have

the opportunity to move beyond the often restrictive nature of grammar instruction in the context of remedial coursework to more authentic exploration of the power of language and what writing might make possible.

On this November day, as had been the class routine across the semester, Instructor Anderson previewed the *MyLab* lesson on pronouns outside of the computer lab, using the regular classroom space to talk with students the roles of pronouns in sentences and to review common points of confusion. Grabbing a whiteboard marker, Instructor Anderson wrote this sentences on the board as an example:

Sandra told Denise she looked great yesterday.

“She is the pronoun. Who is she referring to?” Instructor Anderson looked around the class. “Do we know specifically who she is referring to?”

After a silent pause, a few students jumped in: “Is it Denise?” “Oh, wait.”

Instructor Anderson picked up again: “It could be Denise. Or it could be Sandra. We have no idea which one this is referring to. This is an unclear antecedent.” She offered another example:

They said Cambodia is rural.

“Who is they?” Instructor Anderson asks. “How can we fix this?” After a few silent moments, Brandon, from his customary seat in the back row, his chair tipped on its back legs, raised a hand: “Cambodians?”

“Sure,” Instructor Anderson said. “They live there. They would be experts.” The key point, Instructor Anderson advised as she wrapped up her preview to the *MyLab* lesson, is to check whether “they” is replacing a plural noun and not a singular noun. As discussed in the section above, neither *MyLab* nor the instructor introduced the idea, very

much in discussion outside of the classroom, that “they” could usefully operate as a singular, gender-neutral pronoun. And as students moved to the computer lab to complete the required lesson module in *MyLab*, they seemed satisfied with the idea that pronoun concerns could be identified and corrected with little ambiguity.

Within a few minutes of beginning work on the automated lesson module, though, several students began calling Instructor Anderson over to their desks. For some of the multiple choice quiz questions, they complained, it seemed possible that more than one answer could be correct. And in the application section of the lesson module, students were stymied as they tried to replace vague pronouns with specific nouns that they thought made sense in the sentence but that the system rejected as wrong. This is how the apply paragraph read, with the *MyLab* answers shown above the crossed out language:

Figure 4-6: *MyLab* Activity on Pronoun Usage

homework: RW6.17 Apply

RW6.17 Grammar Apply Q-1

Exercise Score: 3.2 of 10 pts 1 of 1 complete

Instructions Summary

SCORE DETAILS

	Number Missed	Point Deduction	Total Deduction
Errors Missed	6	-10	60
Incorrect Clicks	8	-1	8
Hints Requested	0	-1	0
Answers Requested	0	-10	0
Total Points Lost:	68		

Many Americans get uneasy when ^{they} ~~you~~ hear the words "political revolution." But if a person ^{he or she realizes} ~~they realize~~ that our country was built by a small group of revolutionaries. We know some of their names well--George Washington, Nathan Hale, Patrick Henry--but ^{we} ~~you~~ may not recognize others. ^{Historians} ~~They~~ say one of the greatest but least known Revolutionary War heroes is Francis Marion. If someone saw the movie *The Patriot*, ^{he or she} ~~you~~ would know it is about Francis Marion. ^{History books say} ~~In history books, it says~~ Marion was called "The Swamp Fox." He led small bands of men in guerilla warfare against the British. ^{The British} ~~They~~ marched onto a battlefield in orderly rows, faced their enemies, and then fired shots at them. ^{The men's} ~~Their~~ fighting spirit and Marion's tactics really caught ^{the British} ~~you~~ by surprise. Faced ^{the British} ~~you~~

Question is complete.

SCORE: 32 REMAINING: 6/10 Submit Activity

At the front of the computer lab, Instructor Anderson pulled the application paragraph up on the large screen at the front of the classroom, and she was candid in her agreement with the students' complaints as they worked through the first few sentences together. "This is a really specific *MyLab* module, and if I were to be honest with you, I would say Pearson needs to revise this one," she said. Indeed, even in her own attempts to demonstrate the kinds of responses that the system would judge as correct, Instructor Anderson encountered her own share of red "incorrect" x marks from the computer. Pointing to the third sentence in the paragraph, which began, "They say one of the greatest..." Instructor Anderson suggested changing "They" to "People. The system's

correct answer: Historians. At the fifth sentence, which began, “In history books, it says...” Instructor Anderson paused, thinking out loud with her students. “I think this is what it wants,” she says. “I’m trying to remember.”

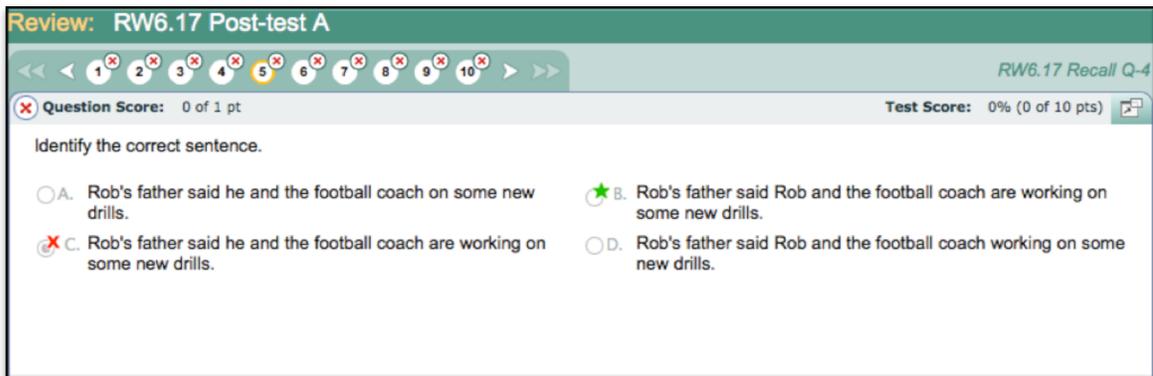
Instructor Anderson changed the start of the sentence to read: *Scholars say*. Her response was rejected as incorrect. Students in the classroom groaned and volunteered their own examples of frustration. Meghan was one of the top performing students in the classroom, a longtime softball player, who planned to transfer to a four-year university after completing some general education classes near her home. She answered questions when called upon in class, but rarely volunteered. On most computer lab days, she had worked swiftly and without complaint in the *MyLab* system. On this day, she was openly exasperated as the system rejected her proposed answers in the apply section, and she summoned both her instructor and me over to her computer to point out her concerns.

“I know all the issues they want me to address, I just don’t know the exact words they want me to type in,” Meghan says. “It doesn’t seem fair.”

At the sentence beginning, “They marched onto a battlefield,” Meghan had typed in *people* as an alternative to the pronoun *they*. Her answer was rejected as incorrect. I interjected a suggestion: How about *soldiers*? Incorrect, the system responds. The term it did give credit for? *The British*.

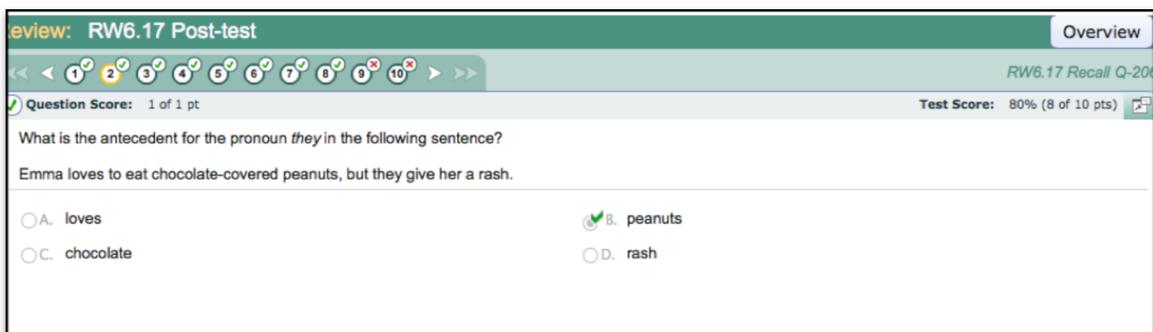
If Meghan said little during most class sessions, the woman working on the computer lab next to her on this day, Erin, said even less. Together, though, they had compared answers on the pronoun lessons multiple choice quizzes, and they pointed out to Instructor Anderson and to me that there, as well, the system was too rigid. This is one question they pointed to as an example:

Figure 4-7: MyLab Test Question on Pronoun Usage



“Couldn’t it be either one?” Meghan asks, and Erin, next to her, nods in agreement. Couldn’t, in fact, Rob’s father be working with the football coach on the new drills? Instructor Anderson and I peer over the students’ shoulder and nod our agreement. Meghan shakes her head, annoyed. “I’m still mad from the apply,” Meghan says. “But whatever.” Erin then pointed to this example:

Figure 4-8: MyLab Test Question on Pronoun Usage



Erin selected “chocolate” as the correct answer and got marked as wrong in the system. “But couldn’t the chocolate give the rash?” she asks. Instructor Anderson told Erin she agreed, but she also pointed to the plural verb—“give”—as a clue to what the system would determine to be correct. Meghan and Erin said they understood the verb

structure, but they thought they were supposed to be looking for ways to make vague pronouns more specific. “ I don’t even know what it wants us to do,” Erin grumbled.

If what the system wanted students to do is find space and ways to engage with language and to puzzle through some of its complexities, in this moment it succeeded. At the conclusion of the next class session, Instructor Anderson pulled me aside. She noted that in the class where Meghan, Erin, and other students had challenged the system and discussed alternate answers, not all some students had completed the scored post-test during the class session. But when those students completed the make-up test in the next class session, they scored 100s. Maybe the lesson stuck more, Instructor Anderson wondered, because the class had challenged it and, as part of that process, found themselves immersed in what became a more complicated way of considering a particular part of speech and its function and role in making meaning.

The automated instructional system held firm control over the Academic Literacy II course in the semester I sat with students and teachers in the course. It shaped instruction and class structure in substantial ways, and it meted out determinations over correctness with little if any space for discussion or challenge about why “the rules” were, in fact, the rules. Yet even as it assumed certain authority in the classroom and positioned grammar instruction more centrally than course instructors said they intended, the technology system also could be seen as opening doors (back doors, perhaps more aptly) to class investigation of what counts as correct in writing and why. In the next chapter, I suggest these same tensions between authority and possibility extended to the ways that the technology system influenced writing instruction and student understanding about the rhetorical possibilities of academic writing.

CHAPTER FIVE
“A Person Knows What a Person Goes Through”
Instant Assessment and Automation’s Constraint on Writing Instruction

INTRODUCTION

“I am going to give you 35 minutes for this last baseline test. It is a baseline; you are not going to be graded on this. It is going to come up as auto-scored—Pearson will score this by itself—but it is not going into your grades.”

It is the third class meeting of the Academic Literacy II course, and Instructor Dee Bennett is guiding students through the series of diagnostic assessments required by the English Department of all students in all sections of the course. Already, Bennett’s students in the first two days of the course have completed a multiple-choice vocabulary test along with a 40-question, multiple-choice grammar and usage assessment online and another online test intended to establish their reading level at the start of the course.

Now, as they sit in front of the desktop computers lined up in a small lab classroom, students turn to what Bennett describes as an additional writing diagnostic test in the Pearson *MySkillsLab* system. For this assessment, students are asked to write an essay in response to a writing prompt asking students to describe an “influential friend.” Students are instructed to type their essay directly into the online system. After they finish and click the “submit” button, their writing will be automatically scored.

This feature is called Write Practice, and in the fall of 2015, it was a new addition to the *MyLab* product that was marketed to developmental writing courses. The English Department at Regional Community College had used Write Practice and its automated evaluation feature in Composition I classes during the prior academic year, and over the summer, instructors and administrators decided to also try using it in a limited way in the developmental literacy course. Students would complete an auto-scored essay at the start of the term, as Bennett's students were doing on this day, and again at the end of the term. The essay and the system's score of it would not be part of course grades, but they would provide another data point for college administrators at the end of the year to consider how students performed in the class.

In Bennett's classroom, students open up the Write Practice prompt just before 10 a.m. on day three, and at the top of an open composing window, they see this prompt:

Tell the story of a friend who has had a great influence on your life. Include your thoughts, feelings, and experiences, to show how your friend has affected you.

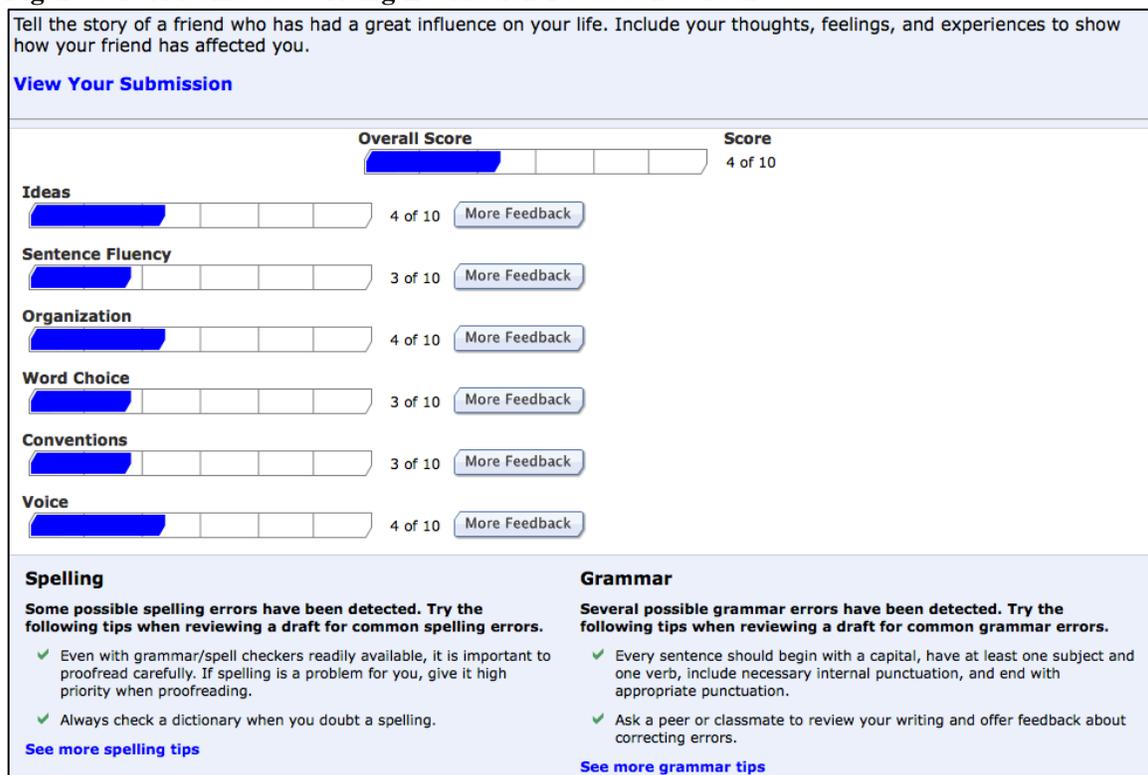
For a few minutes, the room is still as students read the prompt and eye the screen in front of them. "Can we just write in the box?" one student, Samuel, asks after a pause. Bennett nods from her desk at the front of the room. "Right," she says. "They want you to write an essay." There is no further elaboration, either from the instructor or from the system itself, which does not specify how students should approach responding to the prompt, how long the essay should be, or how the essay will be evaluated.

Soon, though, the students in the room all are typing on their keyboards, clicking away as the first few tentative lines of text begin to appear on their screens. None of the students can be seen pausing to brainstorm or write out ideas before they start typing their

response. By about 10:15, the typing in the room slows a bit, but it comes back in bursts over the next 10 or 15 minutes as students pause, sit back to read their work, then continue typing out their response. Around the room, most students have developed a solid paragraph or two on their screens by the 10:30 time deadline. One by one, they sit back, read over their work, and then move the computer mouse to click “submit” for their finished response.

Instantly, what students see returned on their screen is a series of blue bar graphs indicating an overall score on the submitted writing as well as scores on six features of writing that the computer system scores: ideas, sentence fluency, organization, word choice, conventions, and voice. Samuel, the student who asked about the logistics of where he should type in his response at the start of the activity, receives an overall score that reads as a 4 out of 10. The evaluation screen looks like this:

Figure 5-1: Automated Writing Evaluation Feedback Screen



The system offers students the opportunity to receive general feedback on each of the six evaluation areas as well as reviews of spelling and grammar, as noted on the bottom of the screenshot above. But as students receive instant evaluations on this day, most do not click on the options for more feedback, and the few who do quickly close out their screens altogether when they are met with a long, general overview of various aspects of writing. Indeed, most students simply close out their screens when the score overview appears, glancing at their classmates around them. Samuel stands up, sighs, and asks the instructor if he can leave the computer lab to use the restroom.¹³

In later interviews for this study, students commonly expressed surprise that the work could be scored by the computer, even though the instructor had announced that feature at the start of the activity. How, many of them asked later, was the automated system able to “read” their work? On the day they completed the work in class, though, none of the students in the class asked for more information about the writing diagnostic test or how it was scored. When the 35 minute time limit ended, Instructor Bennett gave students a short break, and the class then moved to a separate reading activity without discussion of what the Write Practice diagnostic was intended to measure or how the kind of writing performed on this test would align with writing assignments during the course.

Although the Write Practice activity unfolded relatively quickly and without extensive discussion both in this first instance and, again, on the final day of the Academic Literacy II course, it proved a pivotal moment for thinking about the role of

¹³ Student scores on the Write Practice activity were, in fact, actually higher than they appeared on the screen that day. The course instructors subsequently learned from Pearson that the scores should have appeared as a number out of six possible points—for instance, 4/6—rather than out of ten possible points. However, that system error was not known to instructor or told to students until a later class session.

the automated instructional systems in shaping classroom writing instruction.

Importantly, this timed, auto-scored writing activity would be both the first and the last direct experience students had with writing in the course. But the task itself—directing students to write on-the-spot for 30 minutes with no encouragement to brainstorm ideas, draft and revise, or seek out other readers of their work—seemed likely to guarantee poor writing, regardless of how the product was scored. And while the computer-generated score was intended only to offer baseline and end-of-term data for the college about student performance, the activity could be seen establishing how “good” or “successful” writing would be framed and what would be valued in academic writing in the course.

In the previous chapter, I argued that the presence of the automated courseware elevated direct instruction in grammar and mechanics to a central role in the course even as teachers and administrators intended that aspect of instruction to occupy only a limited space. In this chapter, I show that the classroom technology system also functioned, more broadly, to constrain how students and teachers approached academic essay writing and to foreclose genuine questions, arguments, and exploration as part of writing.

From the first days of the course, the technology system used in the Academic Literacy II class framed for students what matters in academic writing through a series of assessments—including the Write Practice exercise—and through initial online lessons on how to organize paragraphs and compose topic sentences. Across these various activities, the message to students about what matters in academic writing focused on correctness and orderliness of form, and that approach was reinforced by classroom instruction that the faculty members said was aimed at ensuring that students would pass a final portfolio review by other instructors at the college.

Academic writing was presented as the collection of discrete parts—introduction, thesis statement, topic sentences, body paragraphs, and conclusion—and writing instruction was framed as practice in how those parts might be appropriately constructed and assembled following the familiar format of the five-paragraph essay. Broader concerns about rhetorical effectiveness or strength of argument were not represented in the writing construct introduced by the technology system nor were they emphasized in the writing assignments completed across the term or in instructor-led classroom activities that focused primarily on organization and editing.

To examine how the automated classroom technology influenced and shaped writing instruction in the Academic Literacy II course, this chapter looks first at the ways that the system, and course instructors, framed academic essay writing as a largely formulaic assembly of pre-determined components rather than exploratory space for students to form persuasive arguments and write their way to new knowledge. Next, the chapter examines how the influence of the technology system contributes to and reinforces student and instructor views of good writing as, foremost, writing that follows specific organizational patterns and eliminates surface and mechanical error. Finally, the chapter considers how this narrow construct of writing prevailed in the course in spite of two key points of resistance: first, the instructors themselves discussed writing in broader terms and raised concerns about limitations of automated responses to student work; and, as importantly, students in many instances voiced their own skepticism about the usefulness of the technology system to influence or shape their own writing.

At the center of this discussion, I argue that the kind of computer-mediated writing instruction fostered by commercial products like *MySkillsLab* ultimately has the

power to narrow the *construct of writing* that is taught and valued in the course and thereby restricts student conceptions of what writing is for and what role writing might play in their lives, whether in academic contexts or in professional and personal spaces. This focus on the construct of writing draws from research in writing assessment and educational measurement, where designers of large-scale and high-stakes tests have long argued that in order for an assessment to be valid, it first must conceptualize what writing is and articulate what aspects of writing the test seeks to measure (for a sense of the range of discussion about the role of defining construct in writing assessment, see for instance Camp, 2012; Huot, 1996; Messick, 1989; Takala, 1987).

Turning to assessment research to consider some of the consequences of automated instructional features in writing instruction is generative in the context of this study because, as this chapter demonstrates, courseware systems like Pearson's *MyLab* product closely link writing instruction to testing and assessment. Yet research in both writing assessment and automated writing evaluation has shown that assessments like the kind of multiple-choice evaluations linked to grammar instruction through the *MyLab* system and automated evaluation programs such as the one used in the Write Practice activity are not able to consider the rhetorical, social, and meta-cognitive features of writing prioritized in such contexts as the *Framework for Success in Postsecondary Writing* (Council of Writing Program Administrators, 2011).

Composition scholars have critiqued automated evaluation systems as under-representing the broad construct of writing that should be represented in postsecondary writing instruction and, as such, unsuitable for use not only in high-stakes assessment but also in course placement determinations or classroom-based formative evaluations (Beck

& Jeffery, 2007; Condon, 2013; Slomp, 2012). Even developers and proponents of automated writing evaluation systems have acknowledged that such technologies are able to focus only on these types of discrete measures of text quality rather than overall writing effectiveness (Deane, 2012; Shermis, Burstein, & Bursky, 2013). This chapter considers how central features of assessment culture, wrapped in pressures of efficiency and standardization, are duplicated in classroom technology systems intended to make writing instruction faster and more uniform. In turn, the writing construct prioritized by teachers and students is bound to strict notions of correctness of language features and too often fails to make space for meaning making in the writing classroom.

TESTS AND MORE TESTS: ONLINE ASSESSMENTS INTRODUCE ACADEMIC WRITING

For students enrolled in RCC's Academic Literacy II course, their introduction to academic writing came in the form of assessment and, for the most part, assessment administered by an automated technology that was unequivocal in its evaluation of answers as either correct or incorrect. As they guided students through this diagnostic testing during the first two weeks of the course, Instructors Ellen Anderson and Dee Bennett both described the initial assessments as intended to measure students' skills at the start of the semester and to help shape instruction during the course. On the second day of the course, as students turned to the grammar diagnostic, Instructor Bennett explained the tests this way: "It will show us—you and me—where we need to do some work. And then at the end of the semester, you'll take the same test, and we'll see where you come out." The goal, Instructor Bennett told students, was to help identify and eliminate areas that do not need close focus during the term: "Otherwise, you'll have me up there teaching you all this boring grammar stuff and you don't need it." As students

worked through the grammar diagnostic and then moved to an online reading and vocabulary assessment, Instructor Bennett turned to me and lamented the extent of the upfront testing: “Two full days of this! We just keep getting more and more data.” Later, responding to the findings of this study, Bennett said that she had not considered how the test-heavy start to the course might influence student thinking about writing, and she said she would seek to change the structure of her class in coming terms.

While intended to gather baseline information about student performance that could help inform both department-level decisions about curriculum and college-level decisions about the structure of development coursework, online assessments also performed the role of framing for students what matters in academic writing. And the main concerns in academic writing, as reflected through the initial course assessments, were prescriptive rules concerning grammar, mechanics, and usage, and an emphasis on form and organizational structure in academic essay writing. In this model, little space remained for exploration of ideas through writing or consideration of strength of argument, the role of audience and purpose or rhetorical features such as voice or tone.

In Assessment Questions, No Space for Questioning

The 40-question, online grammar diagnostic test administered in the first days of the course previewed the kinds of topics that students would encounter through the *MySkillsLab* online lesson modules and highlighted the complex interplay between instruction, assessment, and narrow conceptions of “right” and “wrong” that would surface across writing instruction in the course. Questions about writing and usage rules in this assessment asked students to evaluate optimal paraphrasing and summarizing,

identify sentence fragments and run-on sentences, demonstrate understanding of subject and verb agreement, recognize correct use of possessive pronouns, and show understanding of how quotation marks function in a sentence.

Although the test was identified as a grammar diagnostic, 19 of the 40 questions focused on reading comprehension or vocabulary knowledge. (As discussed in Chapter Three, the course was a paired reading-writing class, and many of the learning objectives and class activities focused on reading; however, students also completed a separate reading diagnostic focused on those goals.) In the grammar diagnostic, students were asked in several questions to identify the main idea of a reading passage or to select the best definition for a term in the context of a passage. Other questions focused on specific reading strategies. For instance, one question asked students to fill in the blank in this sentence: “*While reading, try to _____ what the writer will say as a way of becoming involved in the reading.*” Of the answer choices provided—*pre-read*, *predict*, *prepare*, or *pretend*—the system’s correct answer was the second option: *predict*. Student who might see “pretending” as a way to involve themselves in the reading or who might consider “pre-reading” as a kind of predictive activity, like skimming a text, would be marked as “incorrect” within this assessment.

The writing-related questions in this initial diagnostic test likewise did not allow space for ambiguity or exploration of language, usage, or rhetorical choice. Questions were presented as having a single clear and “correct” answer even though there were a number of instances, as with the reading example above, where a test-taker might fairly challenge or critique the computer’s “right” answer. For example, in the question shown

below, students were asked to read a short paragraph and to suggest changes in the order of sentences that might make the paragraph “easier to follow”:

Figure 5-2: MyLab Writing Organization Activity

This Question: 1 pt This Test: 40 pts

Read this paragraph, and then answer the questions.

¹The course of my college career has not been straight. ²Now, eight years and two kids later, I'm back in college. ³It's not easy going to school with a family, but I'm determined to finish my degree this time. ⁴I started out, like many others, going right from high school to college. ⁵After a year, though, I thought I'd try the working world. ⁶As a warehouse clerk making \$6.50 an hour, I found the working world boring and difficult. ⁷At the same time, I noticed that my friends were graduating from college and becoming teachers, bankers, and computer programmers. ⁸So I decided to go back to school. ⁹By this time, I was 22 years old. ¹⁰The second time around, I enjoyed my classes, but I also enjoyed a new relationship. ¹¹Dawn and I were married a year later, and I thought I'd take some time off from college to get our lives off to a great start. ¹²That time off ended up being eight years.

What single change would make the chronology easier to follow?

A. Move sentence 1 to the end of the paragraph. B. Move sentences 3 to the end.

C. Move sentence 2 to the end. D. Move sentences 2 and 3 to the end.

To get this question “correct” (Answer D, as marked), students would have to anticipate that the system prioritized in this instance a chronological ordering pattern, a topic that would be addressed in one of the first *MyLab* online lessons about paragraph organization. (Further, the test taker also would have to easily swap the various sentences in their mind in order to imagine a different structure without the ability to actually manipulate the text on the screen.) As presented here, following a time sequence structure—and *only* that structure—is considered to be the “correct” answer that would make the paragraph “easier to read.” For many readers, though, the question itself might only raise more questions. Moving the two sentences indicated to the conclusion of the paragraph would make it “easier to read” in what way? And for what audience? Would there not be a certain rhetorical flourish in choosing Answer B and moving to the end of the paragraph the strong closing idea that, “I’m determined to finish my degree this

time”? Within the closed structure of the multiple-choice, online assessment format, though, there was neither space nor opportunity to raise any question. For the Academic Literacy II students, who in many instances were sitting through the first days of their first college classes ever, the message instead was that there were right and wrong ways to do academic writing—the task ahead was to figure out how to write it right.

Other questions on the diagnostic test required similar parsing of what to some readers would be debatable stylistic or editing choices. Consider this question, which asks students to identify the one “clear and correct sentence” among four examples given:

Figure 5-3: MyLab Writing Question on Pronoun Clarity

This Question: 1 pt This Test: 40 pts

Identify the clear and correct sentence.

A. In the phone book, it says that Ralph's Bike Shop is on Main Street.

B. In the phone book, they say that Ralph's Bike Shop is on Main Street.

C. The phone book says Ralph's Bike Shop is on Main Street.

D. They say that Ralph's Bike Shop is on Main Street.

The “correct” choice, according to the diagnostic assessment, is Answer A—an answer that previews the topic of pronoun clarity that would be addressed in a later *MyLab* lesson module. But looking at answer choice D in isolation, couldn’t a student imagine the simple, declarative: “They say that Ralph’s Bike Shop is on Main Street” as a “clear and correct sentence” given that the instructions for the question do not mandate inclusion of the phone book reference in the sentence? What if the preceding sentence focused on a group of people giving directions? A student might well ask any of those questions during the diagnostic assessment, but they¹⁴ would get credit only for selecting Answer A as correct.

¹⁴ As discussed in the prior chapter, the *MyLab* system does not address the history or potential uses for the singular form of “they” and instead identifies its use in the singular form as incorrect.

Questions that could be seen as inviting students to make connections between reading and writing practices, or to explore their own learning habits and styles, likewise narrowed understanding to a single approach. Consider this question:

Figure 5-4: MyLab Diagnostic Question on Reading Strategies

Why are summarizing and paraphrasing good rehearsal strategies?

A. Summarizing and paraphrasing show information in a visual way. B. Copying ideas down can help readers remember them.

C. When readers express information in their own words, they understand and remember it well. D. Asking questions helps with comprehension.

Here, the “correct” answer was option C, although habits such as questioning texts or taking direct notes (options B and D) are both strategies for supporting readers and writers as they make sense of source material and work to summarize it for other purposes. Another question about paraphrasing further illustrates the single-answer approach that conveyed to students in Academic Literacy II the message that there were definitive “right” and “wrong” ways to do academic writing. Here, the red “x” is my own answer as determined to be “incorrect” by the automated system:

Figure 5-5: MyLab Diagnostic Question on Paraphrasing

The Globe Theatre

The Globe Theatre may be the most famous theater in the world. It was also one of the world's great mysteries for nearly 400 years. The theater was built in 1599 in London, England. The revered writer William Shakespeare staged some of his most important plays at the Globe. In 1613, during a performance of Shakespeare's play *Henry VIII*, a stage canon went off, setting fire to the thatched roof of the building. An hour later, the Globe was destroyed. By the next year, it had been rebuilt from scratch, but this time the roof was made of tiles instead of straw.

In 1642, the Puritans, a religious group, closed London's theaters. Two years later the Globe was torn down to build tenements, and its foundations were buried. Until recently that is all anyone knew about the Globe. Nothing about its exact location or design could be found. For many years, people tried to reconstruct it. They wanted to bring back the place where some of the most important plays in history had been performed, but no one had any luck.

Which of the following is a good example of a paraphrase of this sentence from the passage?
“Even so, architects were able to complete the new Globe basing their designs on what they saw.”

A. If the architects had not been able to see the details from the old Globe, they would not have known how to design the new one. B. Architects could use what they saw to design and build the new Globe.

C. Architects were able to complete the new Globe basing their designs on what they saw. D. Architects were able to base their designs for the new Globe on what they saw and used materials that approximated seventeenth-century materials.

My own reaction to having picked the “wrong” good example could be summed up as: “You’re kidding me!” Certainly, answer choice C directly repeats the material from the reading instead of paraphrasing, but the slight differences between A and B in particular suggest if anything merely a preference by the test makers toward concision. Fair enough, but is that necessarily any more “correct”? And if concision is prized, a student might wonder why an editor or teacher would not put value on streamlining additional information from the passage such as the kinds of material used in construction as demonstrated in answer choice D. But my pushback against the machine’s “best” answer comes as a doctoral-level researcher, a former long-time journalist, and as a teacher of writing. I might be plenty comfortable questioning or challenging the automated system’s choices about editing or stylistic preferences. But students in the first weeks, first days, of a basic writing course are unlikely to share that confidence about writing. And the message of the swift critique of the automated system, as I explore next, is that academic writing has clear “right” or “wrong” responses that can be quickly spotted.

Instant Essay Evaluation and Scoring for Correctness

Students in basic writing classrooms often lack confidence in their own writing skills and especially, as explored in the last chapter, in the rules and conventions of edited Standard English. This unease was reflected through the series of automated assessments at the start of the Academic Literacy II course; student reactions to the automated essay evaluation activity, in particular, demonstrated some of the ways that they were willing to accept the authority of the system in meting out how judgments about “correct” and “incorrect” features of writing. Students who were interviewed for this study a few weeks after completing the Write Practice auto-scored activity described the instant feedback as

surprising and, in some instances, perplexing. But even as they challenged whether a computer could appropriately grade their work, students did not challenge the broader idea that there were ways to identify “correct” writing. Sarah, a student in Instructor Anderson’s course who hoped to pursue a career as a lawyer, said she was surprised the computer could give feedback on writing, but she did not challenge its critique:

Sarah: That’s definitely something I liked about it. It said my topic sentence wasn’t—I think it said I didn’t even have a topic sentence, but I liked—

Gail: [Laughing] Okay.

Sarah: I liked that it gave you feedback. That I did like about it.

Sarah’s idea of welcoming the swift, decisive feedback on whether her writing was right was echoed by a few other students, including Joe, a former amateur hockey player in Instructor Bennett’s course who turned to college courses after suffering a severe injury in a game. Joe said in an interview that he *preferred* the computer’s feedback because of its definitive declarations about his work.

Joe: Thinking about it now, the computer is definitely gonna—it only has one opinion of how it should be done – compared to, like, the instructor.

Gail: Mm-hmm.

Joe: If you were comparing it—if you’re having the computer grade it, or you’re submitting it to a computer, like, it might give you—it will give everyone the same type of feedback. Something with the instructor—I don’t know what to say. Depending on the instructor, like, you might not get that same feedback.

For Joe, the computer offered a measure of potential consistency in its responses, which he saw as able to be applied to the format and structure of his own work. Other student reviews were more mixed in regard to the auto-scoring capacity of the classroom technology system. But, like the students above, they generally did not challenge the idea of a restricted writing construct that could be swiftly measured and assessed. Caroline, a

student in Instructor Anderson's class, described her reaction to the automated grade she received as "happy and sad" and went on to elaborate this way:

Caroline: I was happy 'cause then you got automatic feedback. Whereas computer systems that I've been on before, or teachers, you need to—it takes a while for it to get graded considering the amount of people. Whereas this is just automatic, and it's specifically for you.

Gail: Mm-hmm. What was the sad part?

Caroline: The grade on it.

Gail: Just the score itself?

Caroline: And 'cause I wasn't expecting it. I was happy that it came back that fast, but kinda sad at the same time because it's kinda like the thinking part where you don't know if they went through every little part of it to do every little thing like a teacher would rather than a computer would.

For their part, the teachers in the classes expressed some reservations to me about the usefulness of the Write Practice activity with the Academic Literacy II course.

Instructor Bennett, after reviewing student submissions and the feedback generated by the computer system, told me during a conversation one day after class that she did not find the activity to be generative for students because so much of the feedback that they received was pre-generated and did not respond specifically to their writing submission.

Instructor Anderson, near the end of the semester, told me that while she had success using the Write Practice activity in Composition I courses, where students would work through prompts repeatedly in order to gain a higher score, she saw the limited prompts that were available for the developmental-level courses as too restricted and the scores generated by the system as generally being too high, potentially giving students an inflated sense of the grades they were likely to receive in the course.

But at the outset of the class, and in front of the students in their sections, neither instructor voiced these reservations. And, whether explicitly or implicitly, the writing construct initially framed by the students' first writing in the Write Practice activity was

allowed to set an initial standard for academic writing. Instructor Bennett simply moved from the Write Practice activity on the day it was administered to the next diagnostic assessment; Instructor Anderson revisited the Write Practice activity during the class session after students had completed the work to explain the scoring glitch and to gauge student reaction.

"You did this, and it was auto-scored by the computer. What did you think of that?" Instructor Anderson asked, looking expectantly at the class. In the back of the room, Brandon, leaned back in his chair near the windows, gave a measured response: "I really felt indifferent," he said. "It was more interesting than really useful for writing."

At the front of the room, Instructor Anderson nodded. After a quiet pause, she told the students that if others found it interesting or helpful they could go back into the system and complete that prompt again, or other prompts, up to three times. "So you can really make your writing better," she said, equating with that endorsement writing development in the academic setting with the steady climb of an automated evaluation score. In the next breath, Instructor Anderson moved to introduce the first writing assignment of the class, a four-page essay in which students would write about a special person and what they have learned from that individual. Later, she told me that she hoped the theme for the first assignment would allow students to build on some of their ideas from the Write Practice activity. In class, she emphasized an approach to essay writing that did not stray from the narrow organizational structures that also were rewarded in the online instructional system.

First, students would work with her on an outline. Next, they would complete a revised outline. And then, students would write the paper in stages—building from two

pages to three pages to four. She passed out a grading rubric that distributes points by discrete parts of the essay: the introduction will be worth 20 points; the body of the essay worth 40 points; the conclusion worth 20 points. The rubric notes that 10 points will be awarded for writing conventions—spelling, punctuation, and grammar—and 5 points for following MLA formatting guidelines. A final 5 points will address work that is emphasized in the prior classes through the *MySkillsLab* modules.

AUTOMATING INSTRUCTION: A WRITING CONSTRUCT TO MATCH THE MACHINE

The instructors in this case study wrestled in interviews and informal conversations with me about how best to balance the demands and possibilities of the online technology system with their own goals for writing instruction. But the fact of the department's required use of the technology system in many instances meant that its use took precedence, and its lessons about paragraph-level organization and sentence-level language conventions both previewed and then reinforced classroom writing instruction that focused closely on the model of the five-paragraph essay widely used in high school classrooms. In this exchange, for instance, Instructor Anderson talked about her efforts to make the lessons between the course writing assignments and the MyLab online modules more integrated and, she hoped, more meaningful to students by extension.

Instructor Anderson: Yeah. Specifically what I changed up with the MyLab—especially since we worked together in the summer—is I felt that they were sort of—I tried to integrate them. I thought they were disjointed. I wanted to build the MyLab required work into my rubric so that they students said, ‘Wow. Here I am really working on this. She is expecting me to put that learning into my papers and find that learning.’

Specifically, I've changed my rubrics and thought about what exactly are we working on and how can we keep this building from paper to paper to paper. That's a constant need. For example, if I'm working on comma splices one week in Comp I or developmental classes, and that's on the paper rubric, the students

should know, too, ‘Well, in paper two we can’t forget about comma splices. They have to be there.’”

Gail: So far you haven’t had a chance to see how this term will work, because you’re just getting the first papers back?

Instructor Anderson: Right. I’m hoping that I see stronger paper drafts and development than my literacy courses for topic sentences and paragraphs. I revised the order of the MyLab modules. I started off with topic sentence and paragraphs so that that was our first focus. Once we could get a paragraph down, we could start working on sentence level issues.

This approach to writing instruction that focused on specific organizational features and sentence-level correctness played out in class writing instruction in tightly structured activities that led students through essay drafting in discrete pieces and parts—sometimes paragraph by paragraph and, in some instances, even sentence by sentence. Responding to an earlier draft of this chapter, the instructors said that their close focus on organization in writing instruction was guided primarily by the goal of helping students be able to pass a final portfolio review, in which other instructors from the college would read each of the essays completed during the course and would prioritize organization, clarity, and command of language conventions in that final review. That would be true, they said, regardless of whether the automated instructional system was part of the class. A close look at how academic writing was presented in the course suggests, however, the ways that the lessons from the classroom technology system contributed to and reinforced this view of the writing construct. I turn first to an example from Instructor Anderson’s class, but the same patterns, as I explore next, also were evident in writing instruction in Instructor Bennett’s section.

Pieces and Parts: A Tight Script for Constructing the Essay

As students in Instructor Anderson's class begin work on the first class essay assignment, writing about a person who is influential in their lives, Instructor Anderson launches the day by having students brainstorm about the person they are writing about. What are ten traits of this person that make him or her special? Now what are the six traits from that list that could really provide good material for the essay? The goal, as framed during the class activity, is not around developing a unique argument but about generating enough points of evidence to build out the essay and support a clear thesis, which Instructor Anderson then frames in this way on the class whiteboard:

Person X is a great person because x, y, and z.

With that sample thesis on the board, Instructor Anderson moves from general ideas to a tight focus on organization. "Does anybody know where the thesis goes in the paper?"

Caroline, the student who hopes to pursue a career as an illustrator, tentatively raises her hand: "The last sentence of the introduction?"

"Excellent," Instructor Anderson responds. "That's exactly right."

With the thesis statement in a fixed position, Instructor Anderson turns next to MLA formatting for academic papers. Demonstrating on an overhead projector, she guides students through setting up MLA format in a Word document, emphasizing the use of Times New Roman, 12-point font, of double spacing and page numbering. After addressing overall formatting issues for an academic essay, Instructor Anderson then directs the class to the formatting of body paragraphs in the essay. The starting point, she says, is with a topic sentence: "For the purpose of our class, your topic sentence always will be the very first sentence in your body paragraphs." This is not always the case in all

writing, Instructor Anderson acknowledges, but she tells students to consider it as the standard in this course.

To help students build out the rest of the body paragraph, Instructor Anderson turns to the whiteboard and outlines a closely scripted model for students to follow. The instructor offers a model for the key components of a paragraph in an essay, offering an organization pattern that closely reflects the models proposed in the initial *MyLab* modules about structuring paragraphs and topic sentences:

- 1: A topic sentence to indicate what the paragraph is about.
- 2: A “truth statement” as the next sentence explaining the topic sentence.
3. Examples or illustrations to show why the topic sentence is true.
4. A conclusion sentence that shows why this point in the essay matters.

As the class turns to drafting introductions, Instructor Anderson again outlines a careful formula for students to follow. Introductions, she says, have three main functions: first, to hook the reader and identify the full title of the work that is being discussed; second, to state the context of the paper; and finally, to state the main idea or thesis.

“We are going to build our introductions step-by-step today,” Instructor Anderson says. The first step, she restates, is to hook the reader. “I’m going to give you options for every single paper for the hook. But for this one, I’m going to give you three choices.”

Students are told to use one of the following techniques to begin the introduction:

1. Ask a question.
2. Use a quotation.
3. Use an anecdote to tell a short story about the person that is the subject of the paper.

After students work for a few minutes, filling in their ideas around this model structure for the introduction, Instructor Anderson offers a similar format for ending the essay. “The other mold I want you to create for me today is your conclusion,” she says. As with the introduction, Instructor Anderson tells the students that concluding paragraphs have three goals: first, to restate the thesis; next, to summarize the main points of the paper; and third, to make the reader care. To that third charge, Instructor Anderson offers the students in her class three options to address the final, ‘So what?’ question:

1. Make a recommendation.
2. Predict something that might happen on this topic.
3. Make a call to action or prompt the reader to do something.

As Instructor Anderson leads students through the drafting process, what emerges is a writing construct that primarily rewards organization and the ability to follow a prescribed format more than one that emphasizes strength of argument and quality of ideas. In a later interview, I asked Instructor Anderson about her stated goals of wanting to emphasize rhetorical ideas and class activities such as peer workshop with the pressure she feels to align instruction to the technology modules.

Gail: You say, in the Comp I class especially, that you start to—that you do more emphasis on rhetorical ideas.

Instructor Anderson: Yeah, I tell them. In that class, I have more freedom to do that. I say, ‘You write about what you want to write about. I don’t care what you write about.’ I’ve gotten papers about zombies or whatever, because I’m more concerned about the ideas and that they can come up with their own original thought and put it together and have a writing voice.

Where in my developmental class, I know that they have to get grammar instruction and mechanics down. ... In the Comp class, we work with the *MyLab*, but it’s totally different for me. I look at the *MyLab* as, “Do this. I might review a few things with you, but this is your job.’ ... In the developmental classes, it is different. I wonder if I should switch that a little bit to say—I don’t know. I don’t want them to think it’s just a pretty paper.

Gail: Right. Do you find that distinction between when you're teaching the developmental class and the Comp I class, because of the standardized syllabus or just your sense of the class or what you feel like you have to get through?

Instructor Anderson: Maybe a little bit, yeah. A little bit of both; my sense of each class and then what I have to get through. Developmental, we're in lock step, or we're supposed to be, with one another.

In these distinctions between the goals of the developmental Academic Literacy course and the later Composition I course, Instructor Anderson draws attention to the ways that what is prioritized most for students considered underprepared is attention to grammar and usage and a sense of urgency to do so efficiently and without variation from the perceived "standard" for the course—in "lock step," as she states. These concerns directly echo the focus of remedial courses across the twentieth century that I argue earlier in this project has contributed to the interest in automated interventions for basic writing courses, and, indeed, they were reflected in much the same way in Instructor Bennett's section.

Another Lesson, Another "Formula" for Academic Writing

In the second week of the course, at the same time that Instructor Anderson was introducing the five-paragraph essay structure through the first course writing assignment, Instructor Bennett also was beginning to work with students in her section about how to structure introductory paragraphs in essays. As in Instructor Anderson's course, Instructor Bennett led students through a series of discrete steps for drafting that was intended to result in a "correct" format for beginning an academic paper.

"Never again will you sit before a blank page and wonder, 'How do I get started?'" Because all will be explained today," Instructor Bennett promises students at the start of

the fourth class of the term, her everyday enthusiasm for the course seeping into the start of this lesson as well. “There actually is a pretty simple formula to get you started.”

Instructor Bennett moves through the classroom, passing out four sample essay prompts to students to use as an exercise in writing introductions. The first step, she says, is to identify from the prompt what are you being asked to do in the essay. Once that is established—in the first practice prompt, for instance, students are asked to define a term from a course reading—Instructor Bennett then offers a structure to frame that response.

“I will give you the basic format for introductions. There is an easy formula here – all of your introductions will have to address these things.” On the classroom whiteboard, Instructor Bennett lists the components for the introduction paragraph:

1. The author’s full name.
2. The book title and brief overview.
3. Introduction of the specific chapter the essay addresses.
4. Thesis statement at end of introduction.

With that structure on the board, Instructor Bennett asks students to try their hand, using one of the sample prompts. She suggests to students that there is room for interpretation and creativity: “It’s not just listing these basic parts of an introduction, you can mix things up – it doesn’t have to be only one sentence to set up, for instance.”

Still, students appear fixed on the formula.

“How long should the introduction be?” one student asks.

“It doesn’t matter as long as it addresses these things,” Instructor Bennett responds. “The whole point is just not to have writer’s block—just get on with it.” She circles the room, checking over the shoulders of students as they tap out a practice

introduction on their keyboards,. After students work for about ten minutes, Instructor Bennett runs through the introduction checklist.

“How’d we do? Do you have the author’s full name? Do you have the full title of the book? Is it in italics?”

Students check their work, nodding or re-typing as she ticks off the list. “What kind of thesis statements did you come up with? If you started your thesis with ‘I believe’ or ‘I think’, delete that phrase.” Students take in this stylistic point, look at their screen, and start to type or delete. After a moment, Instructor Bennett asks students if anyone is willing to share their work. Maggie, the daughter of missionaries who has traveled extensively but still doubts her own abilities in the writing classroom, hesitantly reads off a sample thesis that frames her argument in two sentences.

“Okay,” Instructor Bennett says. “It’s good. She has two sentences there. In revision, we’ll get it down to one.”

In the next class session, when Instructor Bennett and the students review introductions again, the same concern about containing a thesis statement to a single sentence arises again. Instructor Bennett asks students to write another introduction, using another sample prompt.

“Are we doing it with your four steps?” Maggie asks.

“Do we use the title and author and--” another student, Karen, asks as follow up.

“I’m glad to see you remember! We are doing this to see if you remember,”

Instructor Bennett says.

“Does the thesis still have to be one sentence?” Maggie pushes again.

Her instructor remains firm on the rule: “You don’t want a two-sentence thesis.”

Scripted Formats and the Script of the Technology System

In each of the writing lessons sketched above, the construct of writing that students are asked to practice and repeat is one that construes academic writing in a narrow way, emphasizing order and correctness or form and rarely delving into rhetorical concerns about purpose or audience or allowing space to discuss the strength of students' ideas or the role of persuasion in academic writing. The course instructors themselves voiced concern about those issues, as I will explore later in this chapter. As noted above, they saw the close adherence to the five-paragraph essay format as helping prepare students for a final course portfolio review. I suggest that the authority of the automated technology system also could be seen shaping their classroom practices and reinforcing a narrow view of writing. In other words, while the format of the five-paragraph essay reflected in much of the classroom instruction might exist as well in courses *without* automated technology as part of the broader curriculum, the distinction here is the way the force of the instant assessment tools reinforced the idea of the one, single "correct" approach to academic writing.

Those connections between writing skill and mastery of the automated usage lessons were evident when Instructor Bennett's lesson on shaping introduction paragraphs, described above, extended into the next class session. After reviewing the introduction format with students and allowing time for further writing practice, Instructor Bennett turned for the first time to the *MyLab* system to work with students on the initial lesson modules addressing topic sentences and paragraph organization.

"You're going to have a bunch of these throughout the semester, but this is the first one, so we want to do it together," Instructor Bennett says, pulling the lesson module

up so it is visible on a large projection screen at the front of the classroom. In her introduction to the system, Instructor Bennett advises students to carefully follow the language and terms and structure that the technology system sets out. Her admonition echoes in a way the close guidance she has given students about writing essay introductions. “It’s important to pay attention, to get the terms straight and be clear about what they are asking you to do. You have to familiarize yourself with Pearson’s terms so you can pass the test.”

Indeed, as with the initial diagnostic assessments, the online modules and their related quizzes and tests, offer little flexibility. In the lesson on writing topic sentences, the narrator of the animated introduction to the lesson cautions students: “Remember this formula: limited topic + controlling idea = topic sentence.” In the very language, specifically repeating the idea of a “formula” for writing, the system directly echoes the writing instruction introduced earlier by the classroom teacher and her instruction reinforces the rules outlined by the online instruction system. Students in the course at once appeared to be working diligently to absorb the rules of the technology system as they existed in concert with their instructor’s classroom lessons. But, in interviews both at the start of the term and at the end, students in some instances also wondered aloud about the lack of flexibility allowed in these spaces.

Maggie, the student who had pushed against some of the small constraints of the writing formulas offered in the class—questioning, for instance, the one-sentence requirement for a thesis statement—said in an interview near the end of the course that she believed that she had improved as a writer during the semester in terms of organization and writing under timed conditions. But in this exchange, she also

questioned how well some of the formulas for writing that were introduced through the instructor and technology system could serve her in other contexts.

Maggie: I'm picking up the most important stuff, like my paragraph structures, I guess. Actually having a structure, I guess, would be a lot better than it was before this class.

Gail: Are there aspects of your writing or areas of your writing that you think you'd still like to work on further or points that just never came up in the class that you thought might?

Maggie: Well, every structure has its limits and when— we never really learned when to write this kind of paper. It was more of just, "This is how you write now." We didn't see a contradicting side of when to and when to not.

Maggie's moment of hesitation, the idea she raises about what limits there might be to the narrow construct of writing practiced in the Academic Literacy II course in tandem with the automated instructional system stood out from other student study participants, who generally viewed the writing construct of the course as broadly transferable to other classes and other writing requirements. But Maggie's remarks suggest the ways that students are, indeed, able to critically assess their own work and to think about their own development across spaces and school and professional roles. And it draws attention to the more common impulse of students in the course to reflexively equate good writing with writing that is determined, by the automated system or the human instructor, to be "correct."

GOOD WRITING AS CORRECT WRITING

The classroom observations and interview data above point to some of the ways that classroom practice around writing instruction reinforced the narrow writing construct reflected in the assessments and activities that students in Academic Literacy II completed through the automated instruction system. Moreover, the influence of the

MyLab system over instruction and its close attention to grammar and mechanical rules meant that students across the semester came to closely affiliate ideas about writing development or improvement as elimination of the kind of sentence-level issues that were the subject of the *MyLab* lesson modules.

In talking about their own writing and their own development across the term, both in interviews and in class discussions, students in the courses used the language of error and correction—including the very specific usage and grammar terms—from the *MyLab* modules. And in their view, writing development was closely tied to mastery of the rules of those units. One display of how students saw these connections came in Instructor Bennett’s class in mid-November, as students were beginning to plan for their final course portfolios and brainstorming ideas for a required reflection letter that would articulate how they had grown as writers during the term.

As class opens on this November day, Instructor Bennett asks students to write for a few minutes to reflect on their own progress during the term. After a few minutes of silence, she asks students to share their impressions with their classmates.

Darin, a lanky student with long, sandy hair and the easy gate of a skateboarder, starts off discussion with a blunt self-assessment.

“When I went back and looked at it, I realized I suck at writing.”

“No, no!” Instructor Bennett jumps in quickly. “You are really improving, Darin.”

“Okay, I improved,” Darin allows. “But I realized I had a lot of run-on sentences.”

Instructor Bennett tells the students that she didn't understand or notice comma splices in her own writing as a student until she was reprimanded for the error by a professor during graduate school.

“My problem was run-on sentences,” Samuel volunteers.

Instructor Bennett follows up: “Was it the comma splice issue?”

“Yeah,” Samuel says.

Another student, Raymond, who had said little during the term, offers a similar self-critique: “I messed up. I had a lot of fragments and a lot of ongoing sentences. I also found that in my conclusion, I was repeating from my intro in some places.”

From Brittany, a quiet, dark-haired student: “I repeated myself a lot.” Instructor Bennett offers reassurance: “That’s an easy fix, isn’t it, now that you now that’s your tendency?” Brittany looks uncertain: “Yeah, but it’s hard to replace it with something.”

Maggie offers a single-word critique: “Fragments.”

Tim, another student, joins Maggie: “Yeah, fragments. But I learned not to repeat the book in conclusion.”

Kevin, a participant in the case study interviews who hoped to pursue a career in writing as a sports journalist, moves the conversation to structure. “I noticed when I’m separating out points into specific paragraphs.”

“Great! Huge,” Instructor Bennett responds. “You have a lot of good points, you’ve got to present them in a way people can access them.”

“I learned how to properly structure a body paragraph,” Mikala volunteers.

“I was a little off topic in some paragraphs, so always going back to the topic,” adds another student, Karl.

“I learned to make sure all my paragraphs get to the point,” Claire says.

As the discussion about writing development bounced around the room that day, the conversation did not stray from this tight focus on the idea that improvement as a writer was closely, if not fully, equated with reduction or correction of errors as well as paragraph construction that followed pre-set notions of structure and order. Certainly, these are issues that would surface in any writing classroom and, indeed, they touch on important features of academic writing that *do* matter for students at all levels of college writing. Yet in this discussion and in individual interviews, as students discussed their ideas about strong writing, those ideas rarely allowed space for discussion of the role of writing in persuasion, the ways that writing might be used to develop new ideas and new knowledge, or investigation of the ways that tone and voice and disruption of traditional conventions within academic writing might also equate with good writing.

Instead, students focused not only on correctness in product, as suggested in the classroom exchange above, but also on their ideas of correctness in *process*—which most commonly meant following prescribed formats, structure, and sentence-level rules as framed by the *MyLab* technology component of the course and reinforced by classroom instructors. In this exchange, for instance, Sarah, the aspiring attorney in Instructor Anderson’s course who was co-enrolled at a nearby regional university, described the ways that the technology system’s lessons influenced her thinking as she would edit and revise essay assignments in the course.

Gail: Are there ways that you think the technology work influenced or affected the quality of your overall writing for the class?

Sarah: Yeah, I think so. Yeah.

Gail: What would you say those are, the connections that you made?

Sarah: Between the MyLab and my writing?

Gail: Mm-hmm.

Sarah: Like I said, probably just my sentence fragments, knowing what to put when and where to put it—what else? Yeah, really, I just found myself when I was writing my papers, I was thinking back. I was like, “Okay, we’ve learned this. Do I need this here? What do I need here? Is this a segment or a sentence fragment?” Yeah.

Gail: Would that happen frequently as you were working or revising?

Sarah: Yeah, pretty often.

This close focus on sentence-level correctness and on following the models of the technology system, particularly as reflected by instructor-led writing instruction, led students in some instances to be harsh critics of their own work and, more broadly, to pull back on some of their own ideas of what writing might be out of fear of being “incorrect” or getting a bad grade. In this exchange, Shauna, from Instructor Bennett’s course, critiques her own writing as “horrible” because of sentence level issues that she had not recognized in the early drafting process:

Gail: You made this comment just a few minutes ago about the class and some—this class and others have helped you to recognize how ‘bad my grammar is.’ What do you mean by that?

Shauna: I don’t know, ‘cause I was—

Gail: You brought up this idea of correcting it or noticing it?

Shauna: Yeah, I noticed and even this—when she had us doing this assignment today with the essays—that my grammar was horrible. I guess I didn’t take the time when I was writing my essay to actually read over it and before I even submitted it, to notice how bad my grammar was, so when I was reading over it—

Gail: So what issues make you feel that way? Because that’s a pretty harsh judgment.

Shauna: ‘Cause in my intro, it was like—or was it somewhere else? It might have been in— whatever it was, it was some sentence I had, and I had “with” in there about three times in that one sentence. You know what I mean? I was like, that’s horrible.

In other instances, students equated correctness of process with correctness of writing. In this exchange, Joe, the former amateur hockey player in Instructor Bennett’s course, described his efforts on a timed mid-term essay assessment to closely follow the

instructor's guidance from earlier in the term for structuring and formatting an essay's introduction. As he talked about this process, Joe quotes the instructor's comments from the lesson on structuring introductory paragraphs almost verbatim:

Joe: She told us that—earlier in the semester, she told us to pretty much just steal the prompt and just kind of modify it.

Gail: Mm-hmm. Mm-hmm.

Joe: That's what I did. I don't know if it's any good, but that's what I did.

In his comments, Joe appears to have internalized the message that an important component of success in academic writing is the ability to follow the close directions of the instructor and specific formulas for constructing writing. This idea reflects the narrow construct of writing that was reinforced across the Academic Literacy II course as instructors sought to align their writing instruction with the lessons and objectives of the automated instructional technology. Interestingly, Joe's comments here suggest his own uncertainty about the inherent value of this approach—"I don't know if it's any good," he says—but in a course in which writing has been introduced around stark concepts of correct and incorrect, right and wrong, he does not explore that idea further.

Maggie, the student in Instructor Bennett's course who pushed against the idea of the single sentence for a thesis, perhaps was the clearest among the students interviewed for the study about expressing doubts that the construct of writing taught and practiced in the course could not fully capture the kinds of writing she might next confront in college courses or in professional life—or that it could even capture fully the ideas she was interested in exploring in the course. In this exchange, Maggie talked with me about her deep interest in the common text that students read for the course, a memoir about a woman volunteering with AIDS orphans in Cambodia. But Maggie said she hesitated

about sharing fully her ideas and thoughts about the text in her writing for the course because she was concerned she might get something “wrong” in the writing.

Gail: Did you feel like you had space in the writing assignments so far to do some of that exploring [about the text] and—

Maggie: Not really.

Gail: Not really? Okay.

Maggie: In the paper I felt like, I don’t know, it could, but at the same time I didn’t wanna mess it up by putting my own views in it. You know what I mean? I guess I tried putting my passion for that in there, but I didn’t wanna be like “in my life,” because there’s very specific rules to when you’re talking about your own life. I wanted to focus more on the book. That way I didn’t get marked down for that, even though you can get marked up heavily if you do put your own personal side into it. I don’t know. I didn’t wanna mess it up, so I did exactly what she wanted.

In her comments, Maggie draws attention to the deep constraints of a writing construct that can be systematically taught and that can align with the narrow focus of a classroom technology system that is able to measure specific features of text but is not equipped to engage with students on ideas and rhetorical possibility. For the student, concerns about getting “marked down” become paramount when the course structure has prioritized a writing construct based on fairly inflexible formulas for structure and content. When Maggie says that, “I didn’t wanna mess it up by putting my own views in it,” she calls out the arhetorical nature of the writing that is practiced and rewarded in the course. This is a troubling position, and it is at odds, as I explore next, with the stated beliefs about writing instruction from the instructors leading the course sections I followed. In the split between student and instructor views about writing and feedback, and the classroom practices that played out across the semester, though, there are signs of possibility for how the automated instructional features of the course might be reimaged.

PUSHBACK AGAINST THE MACHINE, FROM INSTRUCTORS AND FROM STUDENTS

Close attention to the voices and beliefs of the instructors in the course suggest that the presence of the automated system did influence how writing was conceived and taught in the course. In interviews and informal conversations across the semester, Instructors Anderson and Bennett both voiced concern for helping students in the course to develop as writers through exploration of ideas and language and a full understanding of the writing process, including opportunity for revision and for peer workshop. As classroom practices pushed them to align their teaching more closely with the technology system, both instructors also raised concerns about what students took away from the online modules on grammar and paragraph writing and organization in their thinking about writing more broadly, and they questioned the utility of the automated evaluation activity, Write Practice, for students in the developmental literacy course. Students in the course as well voiced their own reservations about the limits of an automated system to allow them to develop fully as writers. In the next section, I look first at ideas from the two classroom instructors about writing instruction and the role of technology in that practice. I then examine student views about those competing forces in the classroom.

Instructors Voice a Wider Perspective: "It's Okay that it's Not Perfect"

In late September, about a month into the semester and as students were working through revisions on their first course essay assignment, Instructor Bennett begins class by introducing students to the idea of process in writing.

"Today you get to learn about the writing process," she says from the front of the classroom. "A long time ago, the idea arose in writing studies that students might get more accomplished if they didn't have to do it all at once."

Sketching the idea on the whiteboard, Instructor Bennett describes the writing process as addressing three main stages: pre-writing, drafting, and refinement. In the first step, she says, the goal is to, “get it down, get a good-enough first draft.” This is the stage students are completing on the first essay, and her advice offers reassurance.

“All you have to do is get it down,” she says. “Don’t worry about grammar. Don’t even worry whether your paragraphs all make sense. Creation is messy. It’s okay that it’s not perfect.”

In subsequent drafts, Instructor Bennett tells the class, there will be time to fill out ideas, add quotes, explain key points. Concerns about grammar, or “fixing up” the work, do not need to surface until the final stage of refinement.

“In drafts one and two, you’re trying to get things down,” Instructor Bennett says. “You can’t have that little editor always sitting on your shoulder.”

Instructor Bennett’s discussion of the writing process¹⁵ comes on a day she also has a structured peer review activity for students to review the ideas and structure of classmates’ work. Together, her brief lecture and the peer response activity offer to students a very different view of the possibilities of writing and how they might think about and approach writing than the construct that has been framed since the first days of the course by the technology system and by the teacher’s earlier instruction focused on structure and format of the essay, as illustrated in some of the classroom scenes earlier in

¹⁵ Efforts by both Bennett and Anderson to balance instruction in mechanical features of writing, with broader exploration of the writing process echoes—as also discussed in Chapter Four—the same tensions of Mina Shaughnessy’s foundational work on basic writing. Within *Errors and Expectations*, Shaughnessy describes writing as a process and cites approvingly the then-emerging work of Janet Emig on student writing processes as one guide for instructors. Still, Shaughnessy (1977) can be seen privileging direct grammar instruction in spite of her own disclaimer that, “the portion of time I spend analyzing error does not reflect the proportion of time a teacher should spend teaching students how to avoid them” (p. 6).

this chapter. But these lessons also come a month into the course, and they come behind the lessons about grammar, mechanics, and formatting that already have worked to classify writing instruction as having clear goals for “correctness.”

In an interview at the end of the term, Instructor Bennett said that she tried to coordinate her ideas about writing instruction and what was most important for students with the required technology components of the course. But it was difficult, she said, to maintain clear alignment and to find time and space in the classroom for everything:

Instructor Bennett: That was my intention, to find a way to make it immediately applicable for them and what they were attempting to do. The danger of the electronic stuff, like Pearson, is that it is difficult to weave into the other stuff you’re doing. Because it’s almost all grammar, and well, you normally only do that in certain parts of your process. ... Then you can’t do them all at the same time, or there’s no retention. When do you get to repeat it?

Gail: Right, right.

Instructor Bennett: Because repetition is key to learning and being able to do it more than once. Those are the challenges I’m still facing. To really make it sink in they need to be able to repeat it, which means you need to—you want it to be at a time when you want them focused on grammar, not in the brainstorm part or the relax about your writing, just get down your thoughts part, right?

Across the term, Bennett wrestled openly in informal conversations with me about this same question of whether students were retaining the lessons from the technology system and what connections they saw to their own writing. As she scrutinized the technology system more closely, she raised concerns about its accuracy and its utility—with me in some instances, but also in conversations with other instructors and in English Department meetings. In an exchange before class in early October, for instance, Instructor Bennett told me that after closer inspection she thought Write Practice, the automated writing evaluation tool, offered feedback that was too generic to be meaningful or helpful to students. Looking over the Write Practice scores in

her class, and the related feedback that students received, Instructor Bennett told me she was disappointed by the system. Students who received a score of 70 on the activity were getting the same generalized feedback about writing as students whose writing had received a score of 90.

“I thought it would be more individualized,” Instructor Bennett said. “I looked at it, and I thought, at least I don't have to worry about job security. ... It's a fine diagnostic, but I would want to use it beyond that.” The system, for instance, might flag sentence fragments as a concern for students, but it does not distinguish the degree of the problem for various students or point students to where that issue arose in their own work.

Instructor Bennett said that she raised her concerns about the automated evaluation feature in a literacy staff meeting, and other instructors countered that the feedback was distinct enough to be of use to students. Instructor Bennett shook her head in disagreement as she relayed the conversation to me: “I'm just wanting to see something more specific. It gives you all these links [to writing resources], and I just don't see my students going through all those links.”

Still, Instructor Bennett was aware that the activity was a required feature of the course, like the online modules, and she saw part of her job as helping students navigate the demands of that space. It was a balancing act that Instructor Anderson also wrestled with. In an interview at the close of the semester, Instructor Anderson worried that high scores on some of the online grammar modules or the Write Practice feature did not accurately reflect students' writing ability in academic contexts.

Gail: You didn't see the transfer over to the writing?

Instructor Anderson: Yeah. I think they're good at technology and good at working through things, but then the application of it, I didn't always see it. I didn't see that when I was going through their final grades yesterday. I thought, “I

don't know." Maybe just a handful, not to where I say, "Oh, there's a huge issue here." But some I thought, "I don't know. This isn't an accurate reflection." I wouldn't want someone to come back, not that it would happen, but I thought, "Well, if someone saw this grade and thought, 'Well, this is how they write? What's going on here?'" I would have to explain that it was a module, technology issue. I think there's some students that really are great with technology and clicking."

Instructor Anderson said she was specifically concerned about the Write Practice activity, and she said she feared that its scores on the developmental writing prompts were too high and gave students a false sense of confidence. Instructor Anderson said she raised that concern with the English Department chair, and they agreed to continue reviewing how the system could function most usefully in the course. If anything, Instructor Anderson said she would prefer students to receive a lower score than perhaps was fully reflective of their performance so that they would have a sense of the "full expectation" of writing for college courses.

"Yeah, the full expectation. Because, now, there were quite a few students that did really well on the Write Practice. I thought, "Oh my gosh, that's giving you way of an inflated, false sense of your ability."

As she reflected on the impressions the technology system left with students in the course, Instructor Anderson suggested that the connection between online instructional activities and the writing construct that the work fosters are not always in alignment with the kind of academic writing students are asked to complete in her course and in others. She shared her own efforts to try to de-emphasize the idea of technology as providing clear and certain answers for students as they write, pointing specifically to her efforts to discourage students from relying on the Microsoft Word grammar checker as they are writing for school.

Instructor Anderson: I do tell them to rely on their own thinking rather than auto-correct or auto-spell. But that's not something they're too inclined to do. We do require the use of dictionaries quite often in this course. They have to use dictionaries. One way around it is that I'll lock the Internet, or I'll lock—but then I still can't get around the Word. And when Word's fixing something, and sometimes Word is wrong. [Laughter]

Gail: Mm-hmm. That's good.

Instructor Anderson: Yeah, I mean, it's like—and I try to tell them that. And then, well, one way that we can incorporate this. If a student's constantly getting—they'll get really frustrated with the squiggly lines from Word. And they'll eventually call me over there and say, "Well, why can I not fix this?" I actually had this in a Comp I class last semester. I said, "Well, it's actually wrong. What Word is telling you to do is wrong." And then we could incorporate the discussion of what was actually correct, but she couldn't believe that Word was wrong.

Gail: Can you remember what it was?

Instructor Anderson: It was the sentence—it was this long sentence, and we just had to flip some wording. I don't remember what it was.

Gail: Mm-hmm.

Instructor Anderson: But I remember sitting with this student in the lab, and she was so aggravated.

Gail: Mm-hmm.

Instructor Anderson: And she said, "I keep trying this, and Word's telling me, you know, there's this issue. And I don't understand what to do." That was, that was really interesting for me to have that happen.

This exchange calls back to the experience Instructor Anderson had working with students in the Academic Literacy II course when, as discussed in the prior chapter, a few students pushed back against the pronoun lesson from the *MySkillsLab* system. In that instance, and as Instructor Anderson discussed, she was unsure how best to turn students' resistance to the authority of the technology system into a moment of learning and exchange. In this example, she demonstrates that very kind of instructional moment, working with a student to uncover something more meaningful about language construction in a moment of doubt or pushback against an automated technology positioned as a clear arbiter on correctness. And she signals her own willingness to

challenge the kind of inherent authority that technologies can claim in social spaces. Here, though, that challenge occurs with a technology—the Microsoft grammar checker—that is not positioned as a required, central feature of the course, an important point in thinking about the ways that the *MySkillsLab* role in the course contributes to the overall structure and content of writing instruction. But Instructor Anderson’s stated willingness to think alongside students as they challenge or critique automated directives about their own writing suggests space for a potentially rich exploration as students from the Academic Literacy II course said in interviews they valued that kind of direct engagement with a course instructor as they work to develop their writing.

Student Preference for a Human Reader: “I’d Rather Someone Help Me With Ideas”

Earlier in this chapter, I shared some of the ways that students reacted to the automated evaluation feature, Write Practice, to show how they generally accepted the notion that writing could be categorically assessed and determined to be “right” or “wrong” even in an instant assessment by a computer system. In other words, students overall did not resist the framing of writing as a fairly narrow construct consisting of fairly consistent, discrete, components. Yet many of the students from the case study interviews did challenge the ability of a computer to make broad judgments about the quality, substance, and development of their own writing. That resistance suggests further opportunities for instructors—as well as for college administrators and education policymakers—that could expand the possibilities students see for their own writing development and the roles for writing in their lives.

In their reflection on the role of technology in guiding writing instruction, students made distinctions between kinds of items that a computer might be able to

assess. Multiple-choice questions on usage generally seemed okay for a computer to score, students said. But they hesitated or resisted outright the use of automated scoring for their own writing—or, as Derrick, a student in Instructor Bennett’s course, described it: an “actual paper”:

Gail: What’s your preference in terms of who’s looking at your work?

Derrick: It depends on what it is.

Gail: Okay. How do you mean that?

Derrick: If it’s an actual paper—

Gail: You keep saying that, how do you mean? [Laughter]

Derrick: If it’s an actual paper, I would prefer the actual professor to look at it rather than the computer to look at it. Because a person will actually know what you mean, because a person knows what another person goes through.

Derrick instinctively references the idea of audience—who is the actual reader of the work—although that is a concept that was not addressed at length in either section of the Academic Literacy II course I followed for this project. In an “actual paper”, Derrick suggests, the ideas and arguments should be read and evaluated by a human reader, a person able to recognize the shared human experiences at the center of the work. This suggests one way to flip the script of the use of automated evaluation tools in the classroom: how might what they do not read—or can’t read—help students to consider features such as audience or purpose?

This same tension around the role of the human reader was raised as well by Michael, a student in Instructor Anderson’s section, who was flatly skeptical across the term about how technology might be able to help guide his own development in the course. His preference, he told me repeatedly, was to receive feedback—even on short answer questions—from an instructor who could help him make sense of why an incorrect answer was determined to be incorrect. In the context of academic writing,

Michael said the instructor's demands for revision meant that he had more than a single opportunity to get his writing "right" without critique from the automated system:

Michael: I liked how [Instructor Anderson], she gave us multiple revisions, and so that definitely helps. . . . If I forgot to do something, she'll tell me. With the computer, it'll tell you, but—ah, it's so hard to explain.

Gail: No, I think it's a really interesting point.

Michael: Yeah. It's just a lot easier for a teacher to be there and to tell you what you're doing, and just not having a computer yell at you.

In this specific word choice here—positioning the computer's feedback as yelling at the student—Michael draws attention not only to the broad authority of the automated system in the course but also its rigid constraint over writing, a constraint that Michael views as more flexible when he is in conversation with an instructor. Gary, an easy-going student from Instructor Anderson's class whose professional goals during the term floated between music production and business school, likewise focused on the ways that a human instructor's feedback might offer more nuance for writing instruction. But, in a lengthy discussion of his work on the Write Practice activity, Gary also raised the idea about whether the computer might be wrong in its judgment and how that could be challenged or discussed.

Here, Gary begins by responding to my question about what he remembered about completing the Write Practice activity a few weeks earlier in the term:

Gary: Well I first thought it was a graded assignment, so I just thought, okay, I'll take a paragraph and put as much effort into it as I know I can do. Then I got the feedback, and I was like, I think it—I was really disappointed that my score was that low. She said it wasn't that low, but I always feel like, you know how they have whatever out of five, I had like I think a three or something. I really wanted a four or something like that, 'cause I'm very picky about what my grades are. I hate having low grades.

Gail: No. Grade matter a lot. I think that's a reasonable thing. You said you thought it was a graded assignment. When you finished writing about the person

you wrote about, do you remember if you knew what your understanding was going to be about how it would be scored?

Gary: I assumed that it would be punctuation, grammar, a bit of the structure of the sentence. I wouldn't think it would be too heavily graded because we hadn't learned anything yet.

Gail: Okay. That makes sense. Let me try and rephrase that question. That was probably a little vague. What I was interested in was, did you think the computer was going to score it for you or did you think your teacher was going to read it?

Gary: The computer.

Gail: You did think the computer. You understood it was going through the computer for a score?

Gary: Well, not entirely. I thought it would go through the computer to her [the teacher]. But then it gave me a whole review on my thing, and I was like, this computer, I don't know. . . . I've never seen something get graded by a computer before, so I was like, this is weird.

Gail: How do you feel about, I guess, receiving automated feedback versus feedback from the instructor?

Gary: I feel like, I mean this might be weird, but I feel like the computer could be wrong. It depends. It's like if they worked on this, like if they actually made this a solid program, then I can't really argue with it, but I'd rather someone actually help me with ideas and how to make it better than what's wrong with it.

Gary's reflective comments offer critical illustration of how students instinctively question and challenge technologies and classroom system—*the computer could be wrong*—but also their interest in figuring out how to seek improvement in writing rather than just identify error or mistake. And that openness and curiosity refutes common beliefs that students placed in developmental writing courses are somehow not “ready” for broader exploration as part of writing and as part of learning about language.

When Derrick says he would like an “actual professor” to read his writing or when Gary says he would prefer to have someone “help me with ideas” rather than having either a person or machine simply point to what is wrong, they invite instructors and writing scholars to think more broadly about the way we position writing for students in basic composition classes. The deployment of automated instructional tools like the

MyLab system used in the Academic Literacy II course promise instructors and administrators a more efficient path toward teaching some of the foundational lessons of academic writing such as structuring paragraphs and essays and beginning to think about editing and concision. Yet because the system cannot help a student with ideas or, in fact, even *read* student writing beyond a computational sorting, any promised efficiency comes entwined within a systematic formulation of writing that imparts a single message that suggests “good” writing is foremost writing that follows a formulaic organizational structure and is largely absent of informal or non-standard uses of language.

On the last day of the Academic Literacy II course, in both of the sections I followed, the final activity students participated in was the second round of auto-scored writing—an exit assessment for students and instructors to consider growth at the conclusion of the course. Students in Instructor Bennett’s course were asked to respond to a prompt about a time that they overcame a challenge; in Instructor Anderson’s section, students were given a prompt asking—by chance—about ways that technology has changed our lives. The responses ran about 350 to 500 words, and, to a person, they delivered uncritical appreciation for cell phones and the Internet and the broader sweep on technological advancement. Elisha’s response, captured here with the few misspellings as she entered it, was representative of the sentiment: “When technology first came onto the market, most thought that it was just a gimmick that would never help out. Now a day [sic] we use technology for early [sic] everything.”

The computer scored Elisha’s submission at 100. Around her that day, the other students appeared mindful as well of technology’s force over their outcome in the course. Michael, one of the students who talked most openly in interviews about his resistance to

the automated instructional segments of the course, earned a score of 90 for a submission that uncritically praised technology's march. "Technology has worked its way into everyone's lives, and it is only going to progress as time goes on," Michael wrote. "Literally everything is required by some use of technology and somehow it makes an appearance." As he finished up the submissions that final afternoon, Michael rolled his desk chair over to a fellow classmate, Ben, and, in his question, showed his worry was not about the ideas on the screen or the strength of argument.

"How long was your essay?" Michael asked.

Ben eyed his screen: "A paragraph. A *long* paragraph."

After a pause, Ben offered a bit of further technical advice: "Don't indent. It won't let you indent. It freezes if you indent."

To the end, it seemed, the computerized system could be seen directing the writing that students produced. The system held control even as students voiced their preferences for human readers and interaction. And on their own thinking about writing and teaching, the instructors in the Academic Literacy II course likewise recognized that good writing is far more capacious in its forms and that students come to these spaces through experimentation, feedback, revision, and questioning. The fact of the automated technology in the course, though, exerts strong authority over students and their instructors, and its exertion of "correct" and "incorrect" ways of writing can be seen winnowing broad ideas about what writing is and how students might use the powers of rhetoric and persuasion in their lives to a narrow construct of writing as able to follow narrow formulas for narrow purposes.

CHAPTER SIX

Implications for Practice, Policy, and Research

INTRODUCTION

The promise of automated systems to help speed instruction and produce measurable improvement in student writing can be seen as an alluringly straightforward way to address the complicated issue of college remediation. That is particularly true, perhaps, against the current backdrop of efficiency-driven policy measures intended to raise postsecondary completion rates and better prepare more students, more quickly for college-level coursework. Yet largely unexplored and unchallenged in this push has been the question of what exactly gets counted as improvement or as correct when writing instruction is framed by automated systems in the classroom. In short, what gets valued in student writing? And, in turn, what value do students see in writing? As we are better able to answer these questions, we are able to respond more usefully to college students marked as underprepared and to offer more students more reason to stay.

This study examines the ways that educational technologies intersect with basic college writing instruction so that we might do this work better and with more lasting success for students. The questions at its conclusion center on what should happen in college basic writing classrooms to help prepare students for the writing tasks they will face in academic, professional, and personal spaces and what role instructional technologies should play in helping students and teachers, and also administrators and

policy makers, in reaching those goals. As this project illustrates, those questions have persisted throughout the history of higher education in the United States—and never with easy answers.

One central reason for this persistent crossroads, I conclude here, is that invisible, intersecting beliefs about the primacy of efficiency in education and mastery of the conventions of a single Standard English prevent us as educators from fully recognizing the ways that some perceived solutions to the complex questions of college literacy remediation may in fact restrict students' access to complex literacy skills and, by extension, to broader college and professional pathways. Rather than expand opportunity for those students considered least well prepared for college study, the answer of automated instructional systems may instead risk further stratifying today's higher education landscape. This chapter explores those themes by first reviewing the study's significance and key findings. I then consider the implications for classroom practice and institutional and policy decision-making, and I explore some of the questions this work raises for future research.

CONTRIBUTIONS TO THE FIELD

This study responds to current conversations within writing studies, higher education research, and broader policy spaces about how automated instructional systems could help shape reforms in college remediation programs and, further, improve degree and certification completion rates (Herrington & Stanley, 2012; Smith Jagers & Bailey, 2010; Parry, Fields, & Supiano, 2013; Rutschow & Schneider, 2011). Further, this project responds to the gap in research about efforts to more widely automate developmental writing instruction. Through historical analysis and case study example, this project

presents a critical exploration of the ways that overlapping ideologies about the importance of efficiency in schooling and of mastering Standard English conventions influence the role that automated instructional systems can play in the writing classroom.

While educational histories have long considered the pressures of social efficiency ideologies on American schooling and on remediation (Callahan, 1962; Kliebard, 2004; Rose, 1985), the historical review taken up in this study draws distinct connections between beliefs about efficiency and the role of technologies to streamline and standardize curriculum in basic writing courses. This review also contributes a deeper look at one critical period in college remediation programs—the years surrounding World War II and the introduction of the G.I. Bill to fund higher education for U.S. soldiers—and the ways that efforts to pare down writing classes for military students considered less likely to pursue broader college studies created a model that allowed an easy transition to technology-centered instruction. Further, this study connects these historical trends to contemporary discussions of educational technology through a case study examination of a contemporary developmental writing course at a large community college.

The cross-disciplinary nature of this work makes important contributions relevant both to composition and writing studies and to higher education research. The structure of this project, first, draws attention to the rich opportunities for discovery through multi-method research. Without the context provided by historical analysis in the first section of this study, the observations and actions of the students and instructors that emerge in the case study would risk standing as isolated instances and risk merely reinforcing remediation's long-standing myth of transiency (Rose, 1985). In drawing together

historical analysis with case study research, what emerges is a rich, contoured examination of automated technologies in college basic writing—one that is able to investigate current policy deliberations through a foundation of historical patterns.

More broadly, the methods of this project reinforce the importance of qualitative research in shaping understanding of educational practice and policy. This study produces, for the first time, a detailed, nuanced portrait of how automated technologies influence instruction in college basic writing classes because of the extended researcher time spent observing in classrooms and interviewing participants about their teaching, learning, and writing practices. There is value, certainly, in larger scale and quantitative research methods that might explore, for instance, course completion data or student success rates for students enrolled in technology-centered developmental courses. But while other methods offer scale and breadth, the findings of this project remind that smaller-scale case studies drawing from observation and interview data, with rigorous analysis, can be more nimble and more textured in thinking about the complexities of human behaviors and thinking in educational spaces.

As discussed in the overview of methods, the smaller scale of this project does present limitations: the experiences of the two instructors and the students enrolled in those classes during a single semester cannot represent the experience of every other developmental writing instructor—indeed, even of the other instructors teaching this course at the same time or the students enrolled in different sections at the same campus. Yet if we seek to make sound curricular and policy determinations about technology and remediation policy that will shape the experiences of students and instructors, it is

imperative that we seek to hear and recount how students and instructors describe and experience their current contexts.

Finally, the structure and findings of this study offer evidence of the ways that the silent but powerful beliefs about Social Efficiency and Standard Language Ideology have deep roots and exert strong influence over educational practice and beliefs among instructors and students about what matters in writing instruction at the college level. This holds important implications for researchers in composition and in higher education. Neither the field of writing studies nor research in higher education has widely considered as a theoretical framework how beliefs about efficiency and Standard English shape the expectations and experiences of underprepared college students as well as their instructors and, indeed, college administrators and policymakers.

Data from this project—including, in some instances, the responses of the local English Department chair and the instructors to the study’s findings—surface some of the ways that stakeholders across higher education remain deeply invested in the idea that college remediation programs must prioritize efficiencies of time and costs, and, foremost, must emphasize mastery of basic grammar and usage skills ahead of rhetorical awareness in writing instruction. This project draws attention to those beliefs and challenges some of the ways they shape classroom practice (including determinations about the use of automated technologies), and I suggest they merit consideration by researchers pursuing other questions across both disciplines.

Key Findings From Study

This study contributes four primary findings around basic writing instruction that hold relevance for policy and practice determinations as well as for further research in the

fields of composition and higher education studies. First, this study contributes a more detailed understanding of the historical intersection of “new” instructional technologies and concerns about how postsecondary institutions might best respond to the needs of underprepared students in writing courses. In Chapter Two, I demonstrate how today’s discussions around new educational technologies and remediation programs are, in fact, reprisals of a long-standing and persistent impulse to automate instruction for those students considered underprepared for college coursework. Through an examination of educational histories, original documents, and a review of the journal *College English* from its launch in the late 1930s, this historical analysis shows that the pattern of finding swifter ways to streamline and to standardize writing courses labeled as remedial, basic, or developmental played out repeatedly across the twentieth century but never with sure or lasting results.

Importantly, those earlier technologies that perhaps most closely resemble today’s automated systems—Ellis Page’s automated writing evaluation system, for instance, or B. F. Skinner’s teaching machines—were introduced to educators with much of the same promise of faster and more systematic results that accompany today’s technologies. And, likewise, those systems focused almost exclusively on instruction that atomized language into discrete parts and reinforced beliefs that basic writing courses should focus primarily on isolated grammar instruction rather than rhetorical dexterity. This model for basic writing classes is challenged and altered, certainly, by socio-cultural reconceptualizations of remedial writing instruction that begin with broader efforts to integrate U.S. colleges and universities in the 1960s and 1970s (Fox, 1999; Shaughnessy, 1977; Soliday, 2002; Stanley, 2010). But the model of basic writing instruction as basic *skills* instruction

persists in many institutions, and this review suggests that the promise of swifter, more standard, or more lasting outcomes is one that historical patterns do not support.

The contemporary case study of this project demonstrates two key findings about the influence of educational technologies in today's writing classroom. As I explore in Chapter Four, the automated instructional system exerted broad control over what was taught in the developmental writing course at the center of the case study and how those lessons took shape. The primary outcome of this authority was that direct grammar instruction occupied a central role in the overall course, even as instructors said they cared about their students exploring other aspects of writing instruction. Observation data from the case study demonstrate that instructors in some instances felt compelled to match their instruction and activities to the language and priorities of the automated system. Students, likewise, were reluctant to directly challenge the authority of the computerized system in the classroom, but they managed to circumvent the system in some ways by approaching the online lesson modules as busy work that should be completed as possible by a common approach of guessing and clicking through the multiple choice answers presented onscreen.

The influence of the automated system over course content—and, primarily, instruction in grammar and language mechanics—also worked to constrain the construct of writing that students practiced and explored during the course. In Chapter Five, I argue that the technology system's heavy reliance on automated assessments, including automated writing evaluation, restricted student beliefs about what matters in academic writing to narrow ideas about correctness and orderliness of form. Broader concerns about rhetorical choice or strength of argument were rarely raised during the course, and

in interviews, students generally described “good” writing as writing that contained few mechanical errors and closely followed the formulaic structure of the five-paragraph essay. While instructors said they wanted to prioritize awareness of the writing process and the importance of broad revision in writing development, they also indicated that they felt constrained in some ways by wanting to ensure that students would do well on end-of-course assessments and a final portfolio review that, like the automated system, prioritized mechanical correctness and predictable structure in student writing.

Alongside these tensions of authority and constraint, though, this project also points to moments of possibility for deeper exploration of language and the possibilities of writing using automated instructional systems as a kind of jumping off point for instructors and students. Across the data explored in Chapters Four and Five, there are clear instances where students demonstrate curiosity and engagement about language, sparked in some way by the questions or activities of the online system. In some cases, these moments arise from students simply trying to determine what the “correct” answer might be about a point of usage. But at other points, students actively resist the technology’s system framing of “correct” through their own critical questioning. These moments serve as opportunity for instructors and students to engage in more direct investigation of how language functions and, as importantly, in the ways that judgments about language use can stigmatize and discriminate.

IMPLICATIONS AND FUTURE DIRECTIONS

Pressures for reforms in college remediation programs come both from within the classroom and from forces on the outside. In this section, I consider implications of the present study from three perspectives: how we might rethink the role of automated

instructional tools in educational practice, what implications this research holds for policy and administrative action, and what directions this work suggests for future research.

Educational Practice

One morning near the end of the semester I spent with the Academic Literacy II course at Regional Community College, I was finishing an interview in a campus lobby with Brandon, a student in Instructor Anderson's class, while another student, Paige, watched intently from a nearby couch. Paige had not participated in the extended student interviews, but she had been a lively member of Instructor Anderson's course, regularly asking questions or offering wry observations during class sessions. And as I put away my notes and tape recorder, Paige leaned over and asked what I had talked to students about during the study interviews. I told her that, generally, the conversations centered on the role technology played in the class and in the students' own thinking about writing.

Hearing this, Paige jumped in with her own assessment. "I didn't really like it," she said, referring to the integration of automated technologies in the course. Paige said she once was enthusiastic about technology in school; in seventh grade, she said, students were given the option of using iPads and laptops in class, and she embraced the idea then. "But it was just about the technology—the thing—having the thing," she said. In earlier experiences and again in this early college writing course, Paige said she did not see a clear connection between the technology in the room and the role it was expected to play in enhancing course content or student learning. "It wasn't really writing," Paige said, offering her evaluation of the *MyLab* system from the Academic Literacy course. "If this is about getting better at writing, shouldn't we just be writing?"

The classroom response to this study cannot be that simple; students in the Academic Literacy course in fact did much writing across the semester. But Paige's blunt assessment does invite consideration of the way that writing and understandings of language is framed and reinforced by the use of automated instructional tools in basic college writing courses. Too often still, colleges and writing programs resist introducing complex writing assignments or investigation of rhetorical considerations such as audience and purpose in basic writing courses because they do not see the students who are placed in those courses as fully ready for this work.

Here, some of the critical responses of the faculty participants to the finding of this work are instructive. Instructor Bennett, responding to the study's discussion of instructional patterns that reinforced the structure of the five-paragraph essay, said that she would "love to teach from the gut level" and allow students broad rhetorical exploration. But, she said, many students assigned to developmental courses have only had the experience of writing without structure in high school classes and, as a result, need more prescriptive guidance. Responding to observations in this study about the limited space in the Academic Literacy course for investigation of issues and arguments that matter to students, the English Department Chair, Colleen Davis, countered that at the level of developmental courses, she considers it more important for students to understand basic issues of correctness in academic writing: "We are doing them a disservice if we just let them write about issues of interest to them." On the possibility that students might engage in broader linguistic discussions about notions of "error" in writing, Davis added: "This is a developmental English class, not a graduate course where we can have that kind of philosophical discussion."

These responses are important illustrations of the kinds of tensions that instructors and administrators face as they approach college basic writing courses. They feel pressures of time and of the importance of making sure students are “ready” for the next writing course or the next classroom assessment, which includes greater student mastery over the conventions of edited Standard English. And instructors likewise feel pressure to show measures of student success and progress to college administrators and outside stakeholders—indeed, ease of data collection, for administrative review and decision-making, is one reason institutions adopt automated systems for classroom instruction.

For instructors weighing whether or how to operationalize findings from this study in developmental writing classrooms, I suggest that there are other forces that could usefully help to rethink how we structure what students learn about college writing in these earliest encounters. As demonstrated across this study, educators in the context of college remediation programs work always amid the invisible pull of the ideological beliefs around efficiency in schooling and mastery of Standard English that risk narrowing what students learn and are empowered to explore in the classroom. I do not suggest here that any of us can easily set aside these strong, fixed beliefs. Yet it can be helpful to consider other, competing ideologies—ones that also operate as powerful forces within education—as one way to counter and to rethink existing and entrenched beliefs about social efficiency and Standard Language practices. Consider, for instance, the ways that in other content areas, such as mathematics or science, instructors see value in students showing their work and their thinking as they seek out answers to numerical problems or investigate a scientific hypothesis in a lab. The goal in these settings is not simply to get the correct answer but to demonstrate critical thinking along the way.

Certainly, this kind of competing ideology can inform how instructors and administrators approach reform in the curriculum of college remediation. But there also are broader and more global forces that we also can consider as counters to the persistent front of efficiency and correctness. Perhaps foremost, the belief about college as a space for workforce preparation is one competing ideology, explored across this project, that also makes a strong argument in today's economy for broader conceptualization of writing instruction and rhetorical training. As employers value problem solving and critical thinking skills in the expanding knowledge economy, it is incumbent on instructors at every level to push students toward more complex thinking regardless of whether they are enrolled in a developmental-level literacy course at a community college or a writing course at an elite public or private university. To maintain curricular decisions that narrow writing instruction to, largely, lessons in mechanical correctness for underprepared students is to risk extending higher education stratification in which notions of readiness already are deeply entwined with ideas about social class, race, and ethnicity.

A brief story about this project might be useful here to illustrate this concern more concretely. During the semester I spent studying the Academic Literacy II course at RCC, I happened also to be teaching a course in professional writing twice a week at the University of Michigan. Each week, I toggled between students who were working to master narrow constructions of "correctness" in the first setting and students in the second setting who were working to make sense of various professional genres such as resumes and cover letters and business proposals, many of which they had never practiced before. Certainly, the undergraduate students in the U-M course wrote run-on

sentences and struggled with organizational issues and puzzled over the passive voice and why it might be problematic in some business documents. And in a course focused on professional writing, “correcting” students’ work so that they would be ready for the next step of job applications or interviews could have become a primary objective.

It would have seemed incongruous, though, to turn to routine grammar drills as a way to improve students’ ability to line edit a cover letter or recognize the kinds of “errors” in resume language that might be viewed with greatest concern by employers. Instead, in my work with the students in the professional writing course, we used their own documents and ideas about professional life to think about the ways that power, control, and authority shape the ways that our writing can reflect our own identities and abilities. What matters for any of us in writing is how well we understand our purpose, our audience, our choices about delivery and arrangement of material and evidence—in short, of course, how aware we are of the rhetorical situation and its opportunities.

I do not believe that the students I was working with at Michigan were somehow more “ready” for that kind of exploration or rhetorical choice in professional writing than their counterparts at RCC were for beginning to make sense of common beliefs and expectations in academic writing. One critical difference, I suggest, is that students who have strong secondary school preparation, who come from literacy- and resource-rich homes, and who have the experience of studying at elite or highly-selective colleges and universities have had more classroom experience that invites exploration and inquiry. The addition of direct grammar instruction through rote exercises and quizzes—whether via an automated system or a grammar workbook—fails to establish that kind of space for students and only exacerbates the gap between the learning experiences and opportunities

of students at elite colleges and those seeking access through open admission institutions, including community colleges, that are responsible for most college remediation programs in the country.

Are students in developmental courses “ready” for more critical investigation of grammar and usage and issues of power and authority in language? I suggest that the student voices in this study demonstrate that indeed they are willing, able, and interested in exploring language in broad ways. These students already are deeply conscious of somehow being “wrong” in their use of language, as the interview data of this project reflects. The context of a developmental writing course offers opportunity for investigation of how judgments about “right” and “wrong” uses of language commonly function to stigmatize individuals, and in drawing students’ attention to the way we respond to language in different settings and for different audiences, we also help students to see their own literacy practices as flexible and evolving

One critical tool in this kind of language exploration could be the very automated instructional systems that, at many institutions, already are in place and are required for use whether at the college or department level. The lesson modules on comma usage or pronouns, as described within this project, could serve as the starting points for students to investigate *why* the system focuses on the language rules that it does and *how* it seems to make determinations about correct or incorrect usage. Activities that incorporate automated writing evaluation, likewise, offer a potentially rich source for students and instructors to critically consider not only the patterns that the computerized system judges more favorably, and why, but more broadly the authority of machine systems within the culture to evaluate human operations like writing.

In our conversation about this project near its conclusion, the English Department chair shared that the college had extended its use of automated writing evaluation to the course placement test produced by ACCUPLACER, a commercial assessment produced by The College Board, which also creates the SAT and high school Advanced Placements (AP) exams. The college is not relying exclusively on the machine placement, Davis said, but she saw it as a useful mirror of real-life encounters: “There are times when machines are reading our work,” she said. “And this prepares students for that.” In that same spirit, I suggest it is fair to also offer students classroom opportunities to explore these shifts in technology and to consider what choices they might make about their own writing in those situations and why.

The findings of this work point to the ways that literacy education and writing instruction remain entrenched in a steep theoretical divide between autonomous beliefs about language development and socio-cultural understandings that recognize literacy and writing as always dependent on social context. This work calls for instructors, administrators, and policy makers to allow more space for students to see language conventions as socially situated and to help them to recognize the ways that their own writing always is dependent on social and cultural contexts. This call renews the work of the early basic writing movement in the 1960s and 1970s, which has in some ways fallen out of the view of composition scholars as the work of basic writing has moved from research-oriented four-year institutions and to open access teaching institutions.

This project helps to surface some of the ways that unseen beliefs about the centrality of Standard English instruction and efficient approaches to remedial coursework have preserved beliefs about writing development as an autonomous,

piecemeal process and contributed to resistance, both within education and outside of it, to recognizing literacy development as shaped, always, by social and cultural contexts. But just as I suggest above that the competing belief of education as workforce preparation might be usefully turned to rethink how we structure basic writing courses, I propose as well that another competing ideology—the belief in American schooling as a meritocracy and a vehicle for economic advancement—also might help us to rethink the possibilities for remedial coursework and the ways that emerging educational technologies are deployed in those classes.

American schooling is steeped in the notion that any student, from any economic or educational background, always has the potential and capacity to transcend notions of economic class or preconceived ideas about workforce roles. The very establishment of college remediation programs reflects this long-held belief: even if not everyone arrives at higher education equally well prepared, the institution exists, in part, to help all students to move ahead, to discover and explore their true passions, and to find a career or professional role that holds great meaning—not just that tracks along family or community expectations. For students who enter the writing classroom less well prepared than peers in the academy, we are able as educators to empower them to pursue those dreams and sustain that belief in education as an equalizing force not only by offering instruction in the mechanics of and “rules” of language that provide social capital and power in the culture. We also help students by showing why those rules function in the ways they do, how they are shaped by cultural and social patterns, and how students might choose to follow, bend, or break those rules to their own advantage.

Policy and Administrative Implications

This project grew, in part, from the wide interest among various higher education stakeholders in emerging instructional technologies as a tool to help address concerns about student persistence and completion rates. As discussed by Parry, Field, and Supiano (2013), the focus on reshaping college course delivery—especially for low-income and underprepared students—has been driven in recent years by large investments from private foundations, along with “lawmakers, and a range of policy advocates, all of whom have coalesced around the goal of graduating more students, more quickly, and at a lower cost, with little discussion of the alternatives” (np). This push has come despite little existing research that explores the teaching and learning implications of automation, and the findings of this project offer an important new perspective for this debate.

As I suggest above, if our goal as educators is to promote student success within postsecondary institutions and beyond, it is critical that our curricular and instructional choices promote broad critical thinking skills and give students the tools needed to make clear and persuasive arguments about a wide range of issues. A command of the conventions of Standard English certainly is part of that work, as is clear and logical organization. Yet broader concerns about rhetorical choice and awareness are what allow students and entry-level workers to establish themselves in career fields. Especially for those students who come from low-income backgrounds and who are less well prepared for college—the precise students that the policy makers have focused on in concerns about completion rates—these flexible rhetorical skills are what might allow not only for college completion but for broader social class mobility as well. Technological interventions that construct coursework in writing and other literacy practices only or

primarily as decontextualized skills ultimately constrain broader understanding of the role of writing and narrow paths for those students within higher education and beyond.

Automated instructional technologies present appealing possibilities for the tracking of data about student retention and completion in postsecondary institutions. They also appear in many instances to provide greater opportunities for access and persistence as students have opportunities to complete online lesson modules through distance learning or at their own pace. But as decisions are made about the use of these systems in developmental coursework, it is critical that practitioners who have observed their use in classroom contexts have the opportunity to weigh in on the appropriate role and weight these systems are afforded.

In the context of high-stakes testing, the composition scholar Chris Gallagher (2011) has argued for the importance of “being there” for instructors and researchers who otherwise might shy away from administrative and policy deliberations. Gallagher’s call is a reminder that in order to make the kind of instruction and policy decisions that might have the greatest impact on student growth and success, writing instructors and composition scholars must be willing to take a seat at the table where the decisions are made about matters such as whether to adopt standardized, commercial teaching systems as a move toward greater efficiency. Instructors and scholars from composition and from higher education should be critical voices in shaping curricular and policy decisions about the future directions of college remediation, and they should draw from emerging research, like the present study, to inform how automated technologies are introduced in this context and define clearly how they might aid instructional outcomes.

Future Inquiry

This work helps to expand our understanding of how college basic writing takes shape in classrooms that have adopted automated instructional technologies. But this study was an exploratory inquiry, one that suggests much space for future research. One next step would be to expand the scope of this inquiry to look at the classroom practices of other instructors who have adopted similar technology systems and at other campuses. Broadening the inquiry in this way would allow for investigation of wider patterns of instructional practice that could shape more definitive arguments about best practices at the institutional and policy levels. Such an expansion also could take up some of the open questions of this work and attend more closely to areas such as a systematic review of instructional time spent with the technology system in classes, a close analysis of student writing to consider whether lessons from the online modules are reflected in student work, and a longitudinal inquiry surrounding the experiences of students in technology-centered basic writing classes when they enter subsequent first-year writing courses.

This projects also points to the need for research on the intersection of technology and composition studies in other areas as well. Automated systems present interesting possibilities in education, including in remedial programs, to broaden access both to educational opportunity as well as to information and critical medial literacy. Future research could investigate how the language instruction of automated classroom systems, including automated writing evaluation, might allow instructors to expand critical reading and responding skills among underprepared students. Relatedly, there is wide room in the context of college basic writing for both curriculum development and research related to the development of linguistically-informed practices for instruction in grammar and language mechanics. Such approaches work to ensure that underprepared students at once

do have full command of the conventions of written Standard English but they also recognize the ways that those conventions are based on social contexts, and they are able to choose how to deploy those conventions based on rhetorical factors.

The embrace of automated technologies in postsecondary institutions responds most directly to measurement and countable outcomes for colleges trying to help underprepared students amid rising pressure for evidence of student success. Missing from the discourse of the completion agenda, though, is broader consideration of the ways that greater reliance on automated instructional systems shapes instructional practices in the writing classroom. Such tools reinforce existing beliefs about standard language conventions and the centrality of usage instruction in developmental writing courses. But they also can work to support rhetorically-driven instruction that prioritizes understanding and exploration of how we make choices as writers and for what purposes.

Street, writing with Collin (2014), has suggested that the failure of education technology advocates and writing researchers to fully engage questions about socio-culture understanding of literacy in classroom practice risks echoing the kind of problematic equation of literacy itself as a revolutionizing technology—one that unquestioningly changes culture and thought for the better. Collin and Street (2014) remind that “changes in technology do nothing on their own. Technologies set off changes only when they are embedded in socio-ideological projects. Strip away the latter, and all you have is an amusing gadget or, in the case of literacy, a mental trick” (p. 353).

This caution is an important reminder of how we risk overlooking the social turn in literacy understanding in our turn to the technological. It is important always to keep in sight the understanding that the gadget—the system, the machine, the technology—is not

merely a point of amusement, just as the student Paige hinted in her frank assessment. Rather, the technology in the classroom stands always as a powerful tool, one that has the potential to speed instructional practice and measure student activity and performance, but also one that risks uncritical enforcement of Standard Language Ideology and constraint of student and instructor views of the possibilities for writing. As researchers and educators, our priority must be always to keep in sight how the tool can empower student learning and discovery and, particularly in the context of college basic writing, help students to write their way into spaces of access and power.

APPENDICES

APPENDIX A: INQUIRY TO EDUCATIONAL TECHNOLOGY VENDORS

Request regarding MyLab writing products

3 messages

Gail Gibson <ggibsonz@umich.edu>
To: roxanne.mccarley@pearson.com

Mon, Nov 11, 2013 at 1:26 PM

Dear Ms. McCarley,

I am a doctoral student at the University of Michigan, and I am exploring the use of automated writing evaluation systems in higher education classrooms. As part of this work, I am trying to develop a comprehensive understanding of what schools, and what types of courses, currently are using automated systems -- including Pearson's MyLab products -- as a tool in postsecondary writing instruction.

I have reviewed your online marketing materials, including the insightful case studies offered. To be sure my work is fully inclusive, I am writing to inquire whether I could receive a copy of current product adoption lists for the MyLab products focused on writing instruction -- MyWriting Lab, MyComp Lab, and MyFoundations Lab -- marketing information that I understand is commonly shared with instructors and schools considering using the system.

I also am reaching out to other vendors in this still developing space in higher education, including ETS, Vantage Learning, and Cengage Learning. My goal is to use this more complete picture of the landscape to identify sites for further inquiry that would be appropriately representative of those colleges and courses utilizing automated writing evaluation in postsecondary writing instruction.

I have begun this inquiry here given your role as marketing manager responsible for English with Pearson, but if there is someone else who would be better positioned to discuss this request, I also would very much appreciate any redirection.

Kind thanks for your assistance and consideration.

Gail Gibson
Doctoral Student, Joint Program in English and Education
University of Michigan, Ann Arbor
Email: ggibsonz@umich.edu
Mobile: 513.375.5357

APPENDIX B: OUTREACH EMAIL FOR RESEARCH SITE SELECTION

SUBJECT:

Research inquiry: Technology use in developmental writing classes

DATE:

February 10, 2015

INQUIRY TEXT:

Dear _____:

My name is Gail Gibson, and I am a doctoral student in English and Education at the University of Michigan. As part of a dissertation research project examining efforts to accelerate and streamline developmental literacy instruction, I am reaching out to colleges that are using new courseware technologies such as Pearson's MyWritingLab in basic writing classes.

Pearson's adoption data shows that *__school name__* College has used the MyWritingLab product over the past year. I am writing to you as *__person's role__* to see if you would be willing to answer a few questions about how the college has integrated this technology in the classroom. My goal for this brief initial conversation is to identify sites that are both actively using the product in developmental courses and that would be willing to have a researcher talk with instructors and students about the benefits and challenges of learning with these technologies.

As a former developmental literacy instructor at a community college, I understand how full your schedule is. I am glad to follow up by phone or with emailed questions, whichever might be more convenient, to better understand your school's use of the MyLab product. Alternately, if another person in the department is better positioned to respond to this inquiry, I would welcome your guidance in that regard as well.

Kind thanks for your help and consideration.

Gail Gibson

Mobile: 513.375.5357

Email: ggibsonz@umich.edu

APPENDIX C: FACULTY RECRUITMENT DOCUMENT

Overview and Invitation to Participate in Dissertation Research Project

Project Title:

Efficiency, Language Ideology, and the Role of Technologies in Postsecondary Literacy Instruction

Researcher:

Gail Gibson, Ph.D. Candidate, University of Michigan, Joint Program in English & Education
Email: ggibsonz@umich.edu Phone: 513-375-5357

Faculty Advisors/Dissertation Committee Co-chairs:

Dr. Anne Curzan, University of Michigan Email: acurzan@umich.edu
Dr. Anne Ruggles Gere, University of Michigan Email: argere@umich.edu

Dear [Regional Community College] Faculty:

Thank you for considering participating in this dissertation research project that seeks to draw together historical review with classroom-based inquiry to explore the ways that beliefs about efficiency and standard language usage intersect with the use of new technologies in the context of college developmental literacy courses.

One component of this project is a classroom-based case study examining faculty and student attitudes and beliefs about technology interventions in the writing classroom. This case study will consist of interviews with instructors and students, classroom observations, and review of student work. Qualitative data for this case study will be drawn from observations of two to three sections of the Writing 1060 course at [RCC] across a single semester (Fall 2015). The focus of this study is *not* to measure how well students or instructors perform in the course or the efficacy of the technology product in use in the course, Pearson's MyLab system, but instead to examine student and instructor perceptions of the benefits, challenges, and effects of the classroom technologies.

Research Plan:

Working with two or three participating instructors, I will observe their classroom sessions regularly (optimally, at least on a weekly basis). Instructor participants would participate in two interviews for the study, one at the start of the term and one at its conclusion. Students who volunteer to participate in the study would be interviewed in a focus group setting at the start of the semester and in one or two individual follow-up interviews later in the term. As an educator myself, I am cognizant of the need not to disrupt student learning. Therefore, all formal interviews will be conducted outside of class time, and I will work with instructor participants to ensure that all classroom observations are unobtrusive.

Participation by instructors and students in the study is fully voluntary. Participants will be identified only by pseudonyms in the dissertation project and any subsequent presentations or publications, and [RCC] will be identified only as a regional community college in the Midwest.

Participants will be compensated for their involvement in the study. Participating instructors will receive \$50 gift cards as a sign of appreciation at the beginning and conclusion of the Fall 2015 semester; students who agree to study interviews will receive \$20 gift cards for each interview.

I will share with the instructors and institution the data collected and what I learn about the experiences of faculty and students working with classroom instructional technologies in developmental course sequences. Both student and instructor participants will have the opportunity to reflect on their experiences in the classroom. For student participants, this may result in more reflective cognitive processes; for instructor participants, this process may allow space for them to consider their own teaching practices and how those align with new technology.

The project has been reviewed by the Institutional Review Board (IRB) at the University of Michigan [IRB Review: HUM00099367] and has been identified as exempt because it is intended only to examine everyday classroom/instructional methods. Further, site work for this project has been approved by [RCC's] Office of the Vice Chancellor.

I appreciate your consideration of participating in this project and look forward to the opportunity to learn from your classroom work.

Sincerely,
Gail Gibson

APPENDIX D: STUDENT RECRUITMENT AND CONSENT DOCUMENTS

[Page 1/3]

September 10, 2015

Dear Student:

My name is Gail Gibson, and I am a writing instructor and graduate student in the Joint Ph.D. Program in English and Education at the University of Michigan. This semester, I am here at [INSTITUTION NAME] working with English faculty on a study about how they use technology to teach lessons in grammar and writing. This study is for my dissertation, which is a large research project that is part of the requirements for completing my doctoral degree.

Throughout the semester, I will be sitting in on meetings of this class so I can learn more about how your instructor uses the My Skills Lab instructional technology and how you interact with the system as a student. During the days I am here, I will take notes about what goes on in class: how your instructor explains certain concepts, what the class discusses, and, especially, how you and your teacher make use of the in-class technology system when you are in the computer lab. While I am taking notes, I will not write down any of names or other information that would reveal who is in the class: this study will not make public the name of the college or the instructors and students I observe and talk to. Further, *I will not make any notes about you individually unless you have given me permission by signing the attached form.*

In addition to sitting in on the class and talking to your instructor, I would also like to interview several students to find out more about what you are learning and how you are experiencing the course and the technology aspects of the class. I will ask those students who participate in the interview part of this study to meet with me before or after class up to three times throughout the semester: once in the next week or two, once in October and/or November, after you have completed several of the My Lab modules, and once near the end of the semester. **Those who participate in the interviews will receive \$20 per interview.** *Your decision about whether or not to participate in the study will have no influence on your course grade.*

If you would be interested in participating in interviews throughout the semester, please answer the questions on the following page. Unfortunately, I may not be able to interview all students who would like to be part of this study, so I will use these questions to make sure I talk to students who have a wide range of backgrounds and future goals.

Thank you for allowing me to sit in our your class and learn alongside you this semester.

Sincerely,
Gail Gibson
Doctoral Candidate, University of Michigan
Email: ggibsonz@umich.edu
Mobile: 513-375-5357

Consent to Participate in Classroom Observations for a Research Study

Project Title:

Efficiency, Correctness, and the Role of Technology in Postsecondary Literacy Instruction

Principal Researcher:

Gail Gibson, PhD Candidate in the Joint Program in English and Education, University of Michigan

Faculty Advisors:

Dr. Anne Ruggles Gere, Chair of the Joint Program in English and Education

Dr. Anne Curzan, Associate Dean for Humanities in the College of Literature, Science, and Arts

Invitation to Participate in a Research Study

I am pleased to invite you to participate in a research study about the use of technology in writing instruction. If you sign this consent form, your involvement in this study would permit the researcher to make notes on your activities during the class sessions she observes in your Fall 2015 English course.

Benefits

Your participation is part of a larger study that may benefit [NAME OF INSTITUTION] and its students and instructors by increasing knowledge about effective writing instruction at this institution. The knowledge gained in this study about effective writing instruction might also benefit faculty and students at other colleges and universities.

Risks

There are no known risks associated with participating in this study.

Confidentiality

The researcher plans to publish the results of this study but will not include any information that would identify you. If any information about your individual actions is included in write-ups about the study, your real name will not be used. To keep your information safe, the researcher will label all notes and course materials with a pseudonym. All notes from course observations will be stored on secure server space. The researcher will retain these data indefinitely. These data will not be made available to other researchers for other studies following the completion of this research study.

Voluntary Nature of the Study

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. If you decide to withdraw early, notes about your actions in class will be destroyed at your request.

Consent

By signing this document, you are agreeing to be in the study. You will be given a copy of this document for your records and one copy will be kept with the study records. Be sure that questions you have about the study have been answered and that you understand what you are being asked to do. You may contact the researcher if you think of a question later.

I agree to participate in the classroom observation part of this study.

_____ Print Name

_____ Signature & Date

Student Interview Recruitment Questionnaire

If you are willing to be interviewed as part of this study (for which you will receive \$20 per interview in recognition of your time), please answer the following questions and return this form to me.

1. Your full name:
2. I will contact you by email or phone to arrange and confirm interview days/times. Please provide the best email and phone number for me to contact you. If you prefer to be contacted by text message, please indicate that as well.

PHONE:

EMAIL:

3. Are you able to commit to participating in up to four interviews throughout the Fall 2012 semester (once in September, once or twice in October or November, and once at the end of the semester)? These interviews will take place outside of regular class time, most likely directly before or after a class session.

YES

NO

4. How old are you?
5. What is your current (or recent) employment history?
6. What are your career goals?
7. Have you previously enrolled in any college courses? Where?
8. Why did you enroll in this course?
9. What do you hope to learn in this class?

APPENDIX E: STUDENT INTERVIEW PROTOCOL

I. STUDENT INTERVIEW (START-OF-TERM)

Thanks for your interest and participation in this study about technology use in college writing classes. I am interested in learning about how your class is using the Pearson My Lab system, what you see as some of the advantages and challenges of that technology, and how you see it contributing to your development as a writer. As we've discussed, this research is part of my dissertation project as a graduate student, but my hope is that the study will generate useful insights for other teachers and administrators, and, in the future, I may seek to share findings from our research through conference presentations or publications. I just want to reiterate that in any shared findings, I will not use your name, and I will mask any characteristics that might identify you to an outside audience.

1) In the information form you completed for me, you said you hoped this class would help you to become a better writer in some way. Let's start there. Can you describe for me a bit more what your goals for this class are? What are you hoping to take away from the class?

PROBE: For specifics.

2) In your view, what does it mean to be a good writer?

PROBE: Are there specific things about your writing that you want to work on in this class or hope to improve?

3) How would you describe the role of writing in your life? Whether in school, at home, or at work.

4) How confident would you say you are about your writing ability?

5) At this point in the semester, what do you think your instructor's top priorities are for improving student writing?

6) In class, you have just started to use the MY Skills Lab technology system. To start very generally, what are your impressions of the system so far?

PROBE for specifics. PROBE: Have they (are they) using in any other class?

6a) What challenges have you encountered using My Lab in this class?

PROBE for examples. OR: Are there aspects of the system you might change or want to work differently?

7) I know you are using MYLab for reading and writing exercises – but my work is focused on the writing side of your class. So, thinking about writing, one of the first activities you completed in My Lab was when you were asked to complete a short essay, in class, about an “Influential Friend.” You had about 30 minutes to write the essay, and when you submitted it you got a score and some feedback from the computer system.

(IF POSSIBLE, call up essay) Can you walk me through how you approached writing this essay and completing the activity?

What was your response to the score you received?

The feedback you received was generated by a computer program. How do you feel about receiving automated feedback on your writing as opposed, say, to feedback from a human instructor (or a friend or whoever)?

7a) In the last week, your class also started using MyLab to work through reviews and quizzes about specific writing topics. You started with the modules focused on topic sentences and recognizing paragraphs, and I want to talk a bit about how you approached that initial work and what you thought of it. To start, can you walk me through how you worked through the various requirements of the module – the overview reading, the recall exercises, and then the post tests?

FOLLOW: When you are working through one of the exercises in the system and you get an answer wrong, what do you do? What are your next steps?

8) What do you see as the main take away or learning that you take from these activities?

PROBE: Did either of the initial modules give you new ways to think about writing paragraphs or topic sentences? Did you see your own writing differently after completing the modules?

9) At this point in the semester, what connections do you see between the online My Lab activities and the writing assignments for the class, which you are just starting now?

10) Is there anything else you would like to share with me about this class so far?

Thank you so much for your time today. As I have mentioned in class, I am interested in interviewing students across their work in this class – that would mean meeting with me two or three additional times during the semester. During the next interviews, we would talk more specifically about lessons from the My Lab system and your writing assignments. For each completed interview, you would receive \$20 for your time and help. Would you be interested in continuing to participate in the study in this way?

II. STUDENT INTERVIEW (END-OF-TERM)

Thank you for your continued participation in this study about technology use in college writing classes. When we talked before, the class was just starting to use the My Lab modules to work on grammar and writing issues, and so in our conversation today I would like to talk about your impressions of that system and how it relates to the course now that you have used it more extensively.

To begin, though, I wanted to just ask a few general questions about the term and where you see yourself headed next.

1) How has this class gone for you overall?

- 2) What are your plans for next semester in terms of school?
- 3) What are your longer academic and professional goals beyond that right now?
PROBE: How do you see this class as helping you with those goals?
- 4) Thinking specifically about writing – the focus of this study – what do you think you are taking away from the course now that it is entering its final weeks?
PROBE: What are some specific areas where you feel that you improved?
PROBE: What areas of your writing would you like to work on further?
- 5) One way this class has addressed writing instruction is through the use of the My Lab modules on paragraph structuring and specific grammar rules – and that, of course, is what I have been focused on all term. I asked this same question the last time we talked, but at this point in the semester, what is your **overall** impression of that system?
PROBE: For specific examples.
- 6) Now that you have completed several modules, can you describe for me what your strategy has been in approaching that work?
PROBE: For specific examples.
- 7) With your permission, I reviewed your work in My Lab before this meeting. It looks like: (characterization here – scores, time spent, what completed). Their response to the work/difficulty/outcomes?
- 8) The My Lab modules you worked through address topics like comma usage, sentence fragments, run-on constructions, pronoun usage. How important do you see those issues as being to your everyday academic writing ?
- 9) In addition to the technology modules focused on grammar, you have been working on other written essay assignments this term. And you now have feedback on some of that work. Are there any ways that you think your work in the technology modules has affected the quality of your written academic work?
PROBE for examples.
ACKNOWLEDGE: appreciate you letting me review some of your end-of-term writing in the class.
- 10) As you completed work in the system, what challenges did you notice in your use of technology term? Are there any aspects of the technology that you would change or tweak? What are they?
FOLLOW: Are there any aspects of how the technology is introduced or incorporated in class instruction that you would change?

11) What do you feel like you are taking away from that work in terms of your writing going forward – for school or for other work and career roles?

12) The English department here is assessing this year whether to continue using the My Lab system or to expand its use, possibly to some of the incoming placement tests. If you could offer advice to the school, what would you tell them?

PROBE: Why? Examples?

Because of the way the course calendar is structured – with final exams pushing right up against the holidays – I don't think it is going to be feasible, just for timing reasons, to complete a formal end-of-term interview with each student I've talked to during the term.

I may, however, want to reach out to you after the first of the year either to follow up on any questions that arise in the last few weeks and – more importantly – to share with you any sections of the final written project that incorporate our conversations or observations from your work in class. What will be the best way to reach you after this class ends?

Is there anything else you would want to say now about the class overall or how the technology components influenced the way you think about writing?

APPENDIX F: INSTRUCTOR INTERVIEW PROTOCOLS

I. INSTRUCTOR INTERVIEW (START-OF-TERM)

Thank you for your interest and participation in this study about the use of new technologies in college developmental writing courses. As we have discussed, I am examining how the My Skills Lab modules are used in this course and how those activities intersect with other writing instruction and assignments. This study is using interviews to explore the beliefs and attitudes teachers and students have about technologies and writing instruction at this level, so there really are no wrong or right answers here. I'm interested in learning about your ideas in experiences.

1a) You are teaching English 1060 this term. Can you walk me through your history teaching this class?

PROBE: How long have you taught this class here? What other courses do you teach here (or at any other college in the region?)

1b) What is your overall teaching/professional background?

2) What are your key learning goals for this course?

PROBE: Specifically, what are the key goals you have for students around writing?

What do you want them to take away from this class?

What do you see as the biggest concern to address in this class?

3) From your experiences, what do you think are the top priorities for students who are enrolled in this class?

4) This course uses My Lab for a number of grammar lessons and activities. From your prior experience, how does the technology fit into the course goals and your teaching?

5) How does the fact that this is an online, automated product influence the activities and lessons you are using it for? In other words, how do you see the My Lab work as differing from the work students might complete just in the Grammar Matters textbook that is part of this course?

6) What are you hoping students will take away from these activities?

FOLLOW – How do you evaluate whether that is happening?

7) This term, this course is using – in a limited way – the automatically scored Writing Practice feature for the first time. In writing studies, auto scoring technologies have been challenged for not reflecting rhetorical understandings of writing. What was your response or first thought when the department decided to integrate this feature?

7a) Now that you have done the initial Write Practice baseline and looked at the students submissions, what are your thoughts about this feature and its role in the course?

7b) As students were completing the Write Practice assignment, all of them just opened the prompt window and began writing – there was no brainstorming or prewriting or outlining -- some of the things you already have started discussing about the writing process as you move into the other writing assignments.

8) Thinking about the My Lab product overall, are there any challenges you have you encountered using My Lab in this class?

PROBE FOR SPECIFIC EXAMPLES: Are there any ways you wish the system was different or performed differently in the classroom?

9) What sense do you have of how students respond to the use of My Lab in the course?

10) Is there anything else you would like to share with me about your use of this technology in your developmental classes at this point?

II. INSTRUCTOR INTERVIEW (END-OF-TERM)

Thank you for all of your time and support this term. It has been so instructive to observe your course this semester, and it has been a privilege to get to know you and your students. Of course, we have been talking informally throughout the semester while I have been observing your class. But as we are reaching the end of the term, I wanted to sit down with you again to discuss your impressions of the class overall and, especially, your thoughts about the role that the My Lab instructional technology played for this group of students.

1) At the beginning of the term, you identified a few key issues – writing in academic style, building confidence -- as your key goals for this class. In your view, how close did this class get to those goals over the semester?

PROBE: WHY instructor has this impression/what specific student work or responses leads to this conclusion? WHAT aspects of the class contributed most?

PROBE: Have your ideas about key goals for the class changed at all this term, as you approach another semester teaching this course?

2) Throughout the term, we've been talking about the role of the My Lab modules, and thinking about their use in the class. In your view, what role did the My Lab system play in terms of the course outcomes for students?

PROBE for specific examples

PROBE: Impressions of final tests – what does instructor think that we can learn from those numbers about student writing?

3) As you reviewed final portfolios over the past week, how did you see the students work through the My Lab system influencing their final written essays?

PROBE for specific examples.

PROBE: How did you hope that students might be connecting the online grammar reviews to their written essay assignments?

4) One selling point of the My Lab – and other automated systems like it – is that it promotes greater efficiencies, especially for college remediation. But at points during the term, you seemed to wrestle with the amount of time given over to the My Lab system. Can you talk a bit about that issue?

PROBE for examples

PROBE: how did you accommodate for that in the class?

PROBE: (if relevant) Are there ways it could be more usefully incorporate into the class?

5) At some points in the semester, we have discussed examples or questions from the My Lab system that could be questioned or challenged. How have you (or how would you) responded to those moments or adjusted your teaching to address?

6) At points in my observation, I noticed what I am tentatively describing as a kind of “authority” that the machine and technology system held in the classroom – over both students and teachers – about what is correct and what good writing is. What kind of authority do you see this kind of technology as having over issues of “correctness” in student writing – and in your own teaching?

7) That authority seems to also leave students – in the interviews I have reviewed – with the notion of good writing as primarily correct writing at the sentence and surface level. Some students who talked at the beginning of the term, for instance, about good writing as being about what a reader would understand or appreciate – that is, showing awareness of audience – talked at the end of the term primarily about good writing as being correct writing. What ways do you see to balance that while using the system – or others like it?

7a) What role do you think grammar instruction should play in a writing course at this level?

8) The English department is reviewing whether and how to continue using the My Lab system. What would you describe as the program’s key benefits for student learning – and for your teaching practice – right now? What has been your advice to the department going forward?

PROBE: aspects around training or considerations about instructional use to revisit? For instance, one thing I noted across the semester is how the interactive aspect of the technology system seemed to engage students – and I wondered whether that might be captured and further explored – moving beyond just individual and the screen perhaps

9) Your class ended up using the Write Practice, machine-scored activity to give students automatic feedback at least in a limited way. What were your impressions of that activity? What use do you see for that aspect of the My Lab system in future classes?

PROBE What use do you see for this aspect of the system going forward

Are there other issues or moments from the term that you think are important to revisit or discuss as we are concluding our work together?

APPENDIX G: SAMPLE PAGES FROM CODEBOOK

Molar Category	CODE	Description
Efficiency	EFFICIENCY	Molar category coded intended to capture all references or examples of pressures of efficiency (time, cost, other) in the classroom.
	TIME	Any references to matters of time, speed, length of period to completion of task, course, degree. May be frequently co-coded with EFFICIENCY.
	COSTS	To include any references to monetary costs of course, degree, academic degree, whether voiced by student or teacher. May include outside economic pressures. May be co-coded with EFFICIENCY
	DATA (institution/outside sources)	Intended to capture references to tracking numbers, data, scores, etc. that are required or preferred by institution (teacher, administrator, college) and/or able to be generated by tech system used in class. May often be co-coded with EFFICIENCY.
	COMPLETION (pressures around course/degree completion)	Code intended to capture any references to students completing course or academic degree, whether specifically students in the study or broader references to completion agenda pressures on teachers, administrators, college. May be co-coded with EFFICIENCY.
Standard Language Ideology	SLI	Molar Category Code intended to broadly capture any reference or example of beliefs about Standard Language conventions operating in the classroom, among both students and teachers, or within formal interviews. To include notions of "error" "correctness" "right/wrong" and beliefs about professional preparedness and language.
	CORRECTNESS	Any reference to correctness or error in writing, to include notions or language about right/wrong in writing or school work. Code generated within molar category of Standard Language Ideology.
	APPROPRIATENESS	Code intended to capture direct discussion or examples from observations where students, instructors, others reference appropriateness of language for specific settings such as school, work,

		professional preparation, or other spaces. To be co-coded frequently with SLI
Technology	TECHNOLOGY	Molar Code Category to capture references to role of technology in coursework/classroom. This broad category code will capture a wide range of beliefs and attitudes toward tech and is specifically intended to be co-coded with specific codes that more directly reference how tech is being discussed/used/etc. such as "BELIEF" "SKEPTICISM" "PROCESS"
	INTERSECTION (w/broader class goals)	Code intended to capture ways that the classroom technology system can be seen -- or is discussed -- as specifically intersecting with classroom practices, discussion, other assignments.
	BELIEF (in tech)	Signals discussion or observation of moments/events when students, instructors, other actors, indicate that they have <i>bought in or believe</i> in the use of classroom technology system.
	SKEPTICISM (in tech)	Code signals discussion or observation or moments/events when students or instructors <i>demonstrate resistance or skepticism</i> to technology uses in course. To include general and specific to classroom system in this study.
	AUTOSCORE	Any reference/observation which captures discussion or use of automated scoring feature whether generally or specific to feature used in class within the study.

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