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The Role and Representation of Technology in Composition Handbooks

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THE ROLE AND REPRESENTATION OF TECHNOLOGY IN COMPOSITION HANDBOOKS

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The purpose of this study is to articulate the nature and extent of the dissonance between the views of technology held by the discipline of Composition Studies and those espoused in composition handbooks, focusing on Selfe's notion of critical technological literacy. Because of the American cultural paradigm that reifies technology and because of the social, educational, and economic inequities that the technology-literacy link potentially perpetuates, students and faculty alike must critically examine the myriad influences on and of technology in the writing classroom.

Using a cross-case analysis, constructivist grounded theory, and content analysis, this study examines the role and representation of technology in five composition handbooks, in order to ascertain the extent to which each alludes to notions of critical technological literacy, as advocated by the scholarship of the field.

Though the handbooks did not reveal an awareness of critical technological literacy or the concomitant political issues, several other findings regarding the treatment of technology did emerge from the handbooks. These findings are discussed in terms of their implications for teaching and for future research.

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CHAPTER I

INTRODUCTION

Aside from the instructor and the students, two components of the composition classroom stand out as perhaps the most influential and ubiquitous: the computer and the textbook. Much has been written on the textbook and the computer within writing courses; however, scholarship examining the relationship between composition textbooks and computer technology remains scarce. Indeed, in their prominent book, *(Re)Visioning Composition Textbooks*, Gale and Gale (1999) solicit just this type of study: "As we move into the twenty-first century, we also need to inquire into computer technology and textbooks, an area that this book leaves unexplored" (p. 13).

Textbooks exert an undeniable influence on the students, teachers, and discipline of Composition Studies, broadcasting theories and endorsing practices that affect the field and all its constituents. When these theories and practices relate specifically to issues of technology, the texts in which they are published must be critically examined.

Current composition theory supports the view that the American paradigm regarding technology perpetuates social, economic, and educational inequities. The potential damage of disseminating these same "disabling cultural assumptions" (Duffelmeyer 2000, p. 291) about technology through the discipline's instructional materials motivates my study.

Textbooks maintain a particularly powerful position within the field of Composition Studies because so many of the freshman sequence writing courses are taught by instructors trained in literature. Without the benefit of training in composition theory, these instructors are more likely to absorb and transmit the content, organization, and ideological stance that the textbook has to offer. Even experienced or specifically trained instructors might rely too heavily on the textbook if their teaching load leaves them little time to prepare more thoroughly. In effect, then, and especially in our discipline, the textbooks teach the teachers.

With regard to technology, teachers who do not or cannot engage critically with issues surrounding technology will themselves perpetuate the paradigm that reifies technology. Selfe (1999, p. 144) recognizes this danger:

> . . . when we allow ourselves to ignore technological issues, when we take technology for granted, when it becomes invisible to us, when we forget technology's material bases – regardless of whether or not we use technology – we participate unwittingly in the inequitable literacy system.

Teachers of language and literacy are specifically charged with a "professional responsibility to understand and work with the complex relationships between humans, the language they use, and the social contexts within which both exist" (Selfe 1999, p. 21). Similarly, Warschauer recognizes that, "technological change intersects with other social, economic, cultural, and political factors to help determine how literacy is practiced"

(1999, p. 1). If we aspire to promote critical thinking and social transformation in education, instructors in the discipline must themselves develop an informed, proactive stance toward examining the myriad influences of and on technology.

If teachers do not have an understanding of technology and its social context, they are unable to assist students in developing a critical awareness about technology. Students who do not or cannot analyze technology's impact on their lives, especially on their education, are susceptible to the influence of society's hegemonic values system. Students' unwillingness or inability to engage in this type of critical analysis also manifests the generalized failure of higher education to produce active, capable, and responsible citizens.

By ignoring the complexities of the literacy and technology link, the field of Composition Studies would be abdicating power in the administrative hierarchy. Policies will be enacted, budgets will be formulated, funds will be distributed, and decisions will be made without the informed input of those representing the interests of our discipline.

Because of the power of both technology and textbooks to influence policy and people, the relationship between these two entities – technology and textbooks – needs to be more thoroughly examined. Many scholars have noted the disparity between current theory in the field and the views of writing presented in our textbooks (Bruckner, Connors, 1986; Marius, 1992; Raimes,

1988; Stewart,1978; Welch, 1987; Winterowd, 1989). Presently, however, no focused study of similar disparities relating specifically to technology exists.

Purpose

This study articulates the nature and extent of the dissonance between the views of technology held by the discipline of Composition Studies and those espoused in composition handbooks.

As Takayoshi points out, “cultural assumptions work at the level of the unarticulated” (1996, p. 198), which necessitates close study of textbooks to discover what is “unarticulated.” Teachers need to be aware of the articulated and unarticulated cultural assumptions, especially regarding technology, they are propagating through the selection of their textbooks. This imperative has been advanced by Segal (1995), who states that “if we, in selecting handbooks, ignore the theories of writing that inform them, we run the risk of giving our students messages about writing we do not mean to give – messages we only seem, by our assignment of a particular text, to endorse” (p. 114).

Especially in addressing issues of literacy and technology, textbooks play a powerful role in shaping attitudes and beliefs:

> Technology had become a metaphor for contemporary life. We live in what is called ‘The Computer Age,’ an era where technologies of all kinds are increasingly a part of mainstream popular culture. Beliefs about what is valuable, what is possible, and who has the power to determine and participate in those value systems circulate within and

around representations of technology. (Takayoshi, 1996, p. 201)

By examining these "representations of technology" as they appear in the instructional materials of our discipline, this study assists scholars in developing and maintaining more thoughtful control over the messages about technology being disseminated from within the field. Volti (2001) endorses this endeavor, stating that the "inability to understand technology and perceive its effects on our society and on ourselves is one of the greatest, if most subtle, problems of an age that has been so influenced by technological change" (p. 3).

Research Questions

To address these same concerns, the research questions that guide my study are as follows:

- How is technology represented in composition textbooks?
- What do these representations say about our cultural and scholarly values and beliefs?
- What is the dissonance between the role and representation of technology in composition textbooks and the recent scholarship regarding technology in writing instruction?

In attempting to answer these questions, this study approaches the five textbooks under examination using Constructivist Grounded Theory and Case Study/Cross-Case Analysis. Constructivist Grounded Theory allows for inductive collection, analysis, and categorization of data. This approach is particularly fruitful when attempting to discern "reality" within a text rather than

verifying or disputing factual information. The representations of technology in the textbooks construct “social facts” that can then be used to identity the ways in which these representations are produced, broadcast, and used.

A separate case study will be conducted for each text, analyzing the role and representation of technology within that text. The specific texts examined were chosen according to purposive sampling, as recommended by Constructivist Grounded Theory. The publishers of the texts were varied, to provide a broad spectrum across which attitudes toward technology might be explored. Then, each case study will be compared with the others using Cross-Case Analysis to present an overview of findings.

Two methods were employed to analyze the data collected: Content Analysis and Historical Analysis. CA provides “a set of procedures to make valid inferences from text. These inferences are about the senders, the message itself, or the audience of the message” (Weber, 1985, p. 9). With regard to the role and representation of technology in freshman composition textbooks, this methodology aligns with the objectives of this study. Historical Analysis was also employed in an effort to trace the evolution of textbook treatments of technology. Past editions of each of the textbooks offer rich content and insights into the maturation of Composition Studies. As attitudes and abilities develop along with technology itself, the ways in which all of these changes are reflected in the instructional materials of the field yield valuable information.

The findings from this study support an already established, generalized conclusion: Textbooks lag behind scholarship in the content and theory they publish. With regard to technology in particular, composition textbooks continue to support traditional rhetorical concepts. Technology remains largely in the service of the Aristotelian, transmission model of rhetoric, ignoring innovative and more theoretically informed uses. However, in two respects, composition textbooks have incorporated recent composition scholarship related to the use of technology in the writing classroom: All of the textbooks examined in this study address the visual elements of textual production, and each includes expanded definitions for what qualifies as "text."

Other findings include a decreased explicit emphasis on technology throughout the textbooks, as well as a rhetorical perspective underlying the use of technology in writing instruction. Most of the textbooks are cautious in tone when regarding the various capabilities of the technology, and some even employ the "tool metaphor" in describing the technology. The textbooks also view technological aids as supplementary to – rather than a substitution for – principles of good writing. Functional and political issues are examined in each of the textbooks, as are specific instances of product placement (i.e., computer programs/applications identified by company name). Finally, intimations of Selfe's notion of critical technological literacy are identified in some of the textbooks.

CHAPTER II

REVIEW OF RELATED LITERATURE

Textbooks and Composition

"*Schooling is a matter of mediating the relationship between children and the printed text*." (Olson, 1977, p. 66)

Historically, ideologically, and pedagogically, textbooks have exerted considerable influence in the field of composition. In his historical inquiry of the place of textbooks in the field of composition, Connors (1997, p. 69) believes that for the past several centuries, "composition-rhetoric was overwhelmingly shaped by one great force: textbooks." As Lalicker (2002, p. 54) likewise observes, "textbooks in composition, more than in most fields, define our discipline and our theory." This defining power of the textbook for the field of composition renders it a valid object of further study.

Scholars also recognize the ubiquity and influence of the textbook, maintaining that the textbook is "a fixed locus within the schooling system from which the means and ends of instruction are derived" (Luke, de Castell, and Luke, 1989, p. 246). The efficacy of textbooks in general is that they "comprise a body of *content*, embody a range of *pedagogic principles and processes*, and reflect external and sometimes imposed sets of *social purposes*" (Marsden, 2001, p. 8). Despite their admitted importance, textbooks are often overlooked as part of the educational landscape: "The only element in the teaching mix that receives little attention is the backbone of almost every college course: the textbook" (Besser, Stone, and Nan, 1999,

p. 4). Even so, the field of composition studies is particularly implicated for problematic processes of textbook analysis: “In all disciplines, then, textbooks and the pedagogical practices surrounding them could bear critique, but it is in the discipline of composition studies that this critique has been occurring in a deeply anguished fashion” (Brent, 1994, p. 9). Because of their pervasive influence in the field of composition and as a result of being generally overlooked, the textbooks of the discipline require and deserve careful examination.

Textbooks also serve a particularly legitimizing function by virtue of their assumed authority: “Textbooks lay a definitional claim to the knowledge they contain – they claim that ‘this is certain knowledge and this is the knowledge you need’. Embedded in textbooks therefore is a foundational epistemological assumption – that they have a status, a bona fide status with a potential for universal application” (Issitt, 2004, p. 685). Similarly, Brent concludes that “the writing textbook commands authority by its very nature as a putative repository of relevant knowledge” (1999, p. 11). Textbooks, then, represent “the authorized version of a society’s valid knowledge” (Olson, 1989, p. 241) and enjoy “unrivalled status as legitimate school knowledge” (Luke, de Castell, and Luke, p. 256).

Apple furthers this notion, stating “As part of a curriculum, they [textbooks] participate in no less than the organized knowledge system of society. They participate in creating what a society has recognized as legitimate and truthful” (1992, p. 5). As a result of the authority and credibility

textbooks are given, both from within and beyond the classroom, a critical investigation into the values implicit in and communicated through textbooks would certainly inform the field of composition.

Practically speaking, Miles recognizes the textbook, as well as the choice of a particular textbook, as “cultural reproduction writ large . . . in which textbooks appear to have a one-to-one relationship with the reality of classroom and programmatic practices” (2002, p. 30-33). This crucial cultural component of the influence of textbooks is also recognized by Luke (1988, p. 64), who asserts that “textbooks act as the interface between the officially state-adopted and sanctioned knowledge of the culture and the learner. Like all text, school textbooks remain potentially agents of mass enlightenment and/or social control.”

Janangelo (1999, p. 96) echoes this ominous theme of social control in textbooks, going so far as to claim that “the writing handbook serves its program as a vehicle of social control.” While this assessment may seem hyperbolic, Issitt concurs, stating that “At the extreme, the textbook is the vehicle for the transmission of authorized dogma. In its role as an essential site of learning, the textbook is a key mechanism for the production and reproduction of ideas” (2004, p. 688).

Thus, a textbook functions as a “repository of cultural tradition” (Olson, 1989, p. 238) yet they “are devices for putting ideas and beliefs above criticism.” Textbooks, aside from the authority they are generally given, wield considerable but often latent power in transmitting a culture’s values and

beliefs. This study uncovers the values and beliefs that are being transmitted through the instructional materials of our discipline.

The perceived authority of the textbook is compounded by the very nature of the textbook itself, as Bierman observes, “They present the consensus overview of a field and are vetted by peer-review, assets that set them apart from many other learning resources” (2006, p. 1-2). Also, “textbooks as a teaching vehicle are legitimized in the business of education by the assumption of political neutrality” (Issitt, 2004, p. 688). For example, Issitt explains that the textbook author’s voice, “a monotone of expositional clarity,” promotes this idea of objectivity and neutrality. However, Issitt believes that through critical analysis, we can realize that “rather than being neutral, textbooks share in the production of a hegemony of ideas that delimits the realm of the possible” (2004, p. 689).

McCormick echoes this belief, stating “textbooks that encourage readers to regard certain texts as objective unwittingly prevent students from adopting a critical stance toward those texts, from analyzing the ways in which the texts’ arguments are necessarily positioned within the larger cultural beliefs and struggles” (1994, p. 40). Spellmeyer concurs, asserting that “’Objectivity,’ in short, is another word for invariance” (1999, p. 54), while Janangelo recognizes “the handbook as a stabilizing and controlling influence on students” (1999, p. 95). The potential for the textbook to limit student thinking and indoctrinate cultural paradigms necessitates further analysis into the messages being disseminated through composition textbooks.

Research thus far indicts “textbooks as a primary force in constructing and normalizing a particularly white, upper-middle-class subjectivity for our students” (Miles, 2000, p. 29). Similarly, Bleich believes that a “reliance on writing textbooks helps to promulgate authoritarian values through writing instruction” (1999, p. 18) and that the textbook “helps to perpetuate the hierarchical structures of society. These structures render coercive speech by an authoritative class of people to a less authoritative class” (1999, p. 35). Even earlier, Apple explains the inherently political nature of the textbook by stating,

> In our society hegemonic forms are not often imposed from outside by a small group of corporate owners who sit around each day plotting how to do in workers, women and people of color. . . . To speak somewhat technically, dominant relations are ongoingly reconstituted by the actions we take and the decisions we make in our own local and small areas of life. (Apple, 1989, p.166)

These actions and decisions include the selection and use of a textbook for a writing course. As such, teachers in the field must attend to the content, both latent and manifest, and the presentation of content in the textbooks they assign for their classes. Failure to critically assess and select our textbooks could result in our abdicating academic autonomy. Holdstein recognizes this danger:

> We seem to accept as truth the less-than-benign relationship between and among curriculum and pedagogy as theorized, practiced, and

> represented in and implied by composition textbooks. Even more troubling are the ways in which textbooks . . . continue to dictate policy, good pedagogy, and curricular design, and not the other way around. (2002, p. 53)

Teachers

One issue particular to the composition textbook is its influence on the teachers in the discipline. Connors relates that the textbook's "place in the development of composition-rhetoric is absolutely central because of the dialogic relation between textbooks and teacher training" (1997, p. 69). Even earlier, Connors relates that "a textbook was placed in her hands as a graduate student, and most teachers assumed that the wisdom of the text was the wisdom of the world" (1986, p. 190). Likewise, Faigley recognizes the influence of textbooks on instructors by observing that "teachers answer with the name of a textbook when asked how they teach writing" (1992, p. 133). Furthermore, Faigley explains the extent to which textbooks influence teaching practices, stating that "they do reflect teachers' and program directors' decisions about how writing should be represented to students" (1992, p. 133). Welch also believes "the textbooks largely train the writing teachers" and identifies "the probability that the textbooks are instructional material more important for the writing teacher than for the writing student" (1987, p. 271-272).

Similarly, Holdstein recognizes the reliance of instructors on their textbooks, stating that "it is the natural if not unfortunate inclination of some to

look almost exclusively to the textbook for teaching practice." Holdstein continues to assert that composition textbooks "become inadvertent icons of teaching practice, the indirect consumers of the textbook product [teachers] embedding it ideologically" (2002, p. 55). Taken further, Dow refers to this same concept as "the oppressive monopoly of the textbook on the methods of teachers and the minds of the young" (1992, p. 42).

Time and training emerge as potential reasons for the significant impact the composition textbook makes on its instructors. Biemer admits that "due to the lack of time, some of us may have resorted to using the textbook not only as one of many tools in the classroom, but typically the major tool" (1986, p. 18). This notion is reinforced by a different study, which concludes that often, beginning teachers, especially, design their courses around the content and organization of their textbooks (Barnes et al., 1999).

Also particular to the field of composition, many of its graduate students and instructors teach writing under compulsion, preferring instead to teach the literature in which they were trained. Sewall (1988) points to this reason in explaining why the composition textbook wields such influence:

> Textbooks are printed, highly visible classroom authorities. They serve as curricular armatures, especially for instructors who have no formal training in the field. Textbooks provide an organized sequence of ideas and information, and they structure material for teachers and students. Both parties typically take them both to be the truth. (p. 533)

Acknowledging the maturation of composition as a discipline, Brent maintains “even now, when many writing teachers have been exposed to the rich veins of knowledge being created in the field, textbooks exert a powerful ideological influence because they suggest the wilted precepts they contain represent the prevailing beliefs of the profession” (1994, p. xx).

Because of the powerful and particular influence of composition textbooks, further investigations into the messages being disseminated through them must be conducted. Root (1995, p. 87) justifies precisely this need for continued study:

> Textbooks play an important role in maintaining and sustaining traditional models of teaching and writing; in training beginning teachers of composition in classroom activities, assignments, and attitudes; and in habituating novice writers in ways of approaching both self-motivated and teacher-generated composing. Instead of simply accepting that role for textbooks, composition teachers need to examine the contents, premises, and assumptions of the textbook we adopt or are assigned to teach.

As scholars involved with literacy instruction, we must carefully and critically attend to the materials of our field, namely the textbook. The potential for the textbook to introduce or perpetuate social, political, and educational inequities represents one of the greatest dangers of failing to carefully examine the textbooks we choose and use. Another result of failing to examine the teaching materials of our discipline would be abdicating our

agency in departmental and institutional decisions and policy. Holdstein recognizes this danger, stating that as teachers, “we seem to accept as truth the less-than-benign relationship between and among curriculum and pedagogy as theorized, practiced, and represented in and implied by composition textbooks. Even more troubling are the ways in which textbooks . . . continue to dictate policy, good pedagogy, and curricular design, and not the other way around” (2002, p. 53).

Connors hopes that “Fewer young, trained writing teachers are willing to surrender their teacherly autonomy to the master-teacher behind the textbook” ( ). In their introduction to their widely-recognized and highly-esteemed book, *(Re)Visioning Composition Textbooks*, Gale & Gale urge that “we cannot afford to neglect the dynamic role textbooks play in conserving, challenging, and transforming the academic culture, the discipline, and the tradition of teaching writing” (1999, p. 13).

Attention to textbooks comes in many forms and has many implications. Connors looks to professional expertise as a way in which teachers may retain and maintain their educational autonomy: “Texts can be powerful servants, but only our own pride in and knowledge of our subject will keep them from turning on us and becoming, as they have in the past, oppressive masters” (Connors, 1997, p. 111). Other calls to action include a mandate that teachers ”take the lead and demand a new definition of ‘textbook.’ It is time to say ‘no’ to publishers’ representatives selling us the same stuff in new jargon” (Barnes, 1989, p. 34).

Students

Students “consider textbooks an important part of their college courses” and “an integral part of the course learning experience” (Besser et al., 1999, p. 4). However, in terms of content, certain features of the textbook “reinforce the student as consumer rather than creator, a role the textbook has a vested interest in maintaining” (Frazier, 1993, p. 139). As mentioned earlier, textbooks may potentially delimit student thinking and creativity, ostensibly negating the means and ends of a liberal education.

In terms of marketing, the textbook ignores the consumer (i.e., student), who doesn’t even have the option not to purchase the required textbook. Thus the marketing cycle revolves around the authors, publishers, and instructors on adoption committees (DeBeaugrande, 1985).

Publishers and Scholarship

The discrepancy between theories developed by scholarship of the discipline and what appears in the textbooks of the discipline has been widely identified and lamented. Welch, in describing this discrepancy between composition textbooks and composition theory, asserts that “the material presented in . . . textbooks bears little relation to the large work on composition theory that is widely available” (1987, p. 269). Moreover, textbooks “have failed to fully represent the rapidly changing and richly diverse disciplinary knowledge or to translate successfully the various theories and pedagogies into effective practical approaches for the teaching of writing” (Gale and Gale, 1999, p. 4).

In addition to neglecting current scholarship in the field, publishers avoid substantive revisions in subsequent editions of a textbook. Barnes recognizes that “the precious few truly innovative texts are either not marketed aggressively or simply are not published by the ‘major publishing houses’ because the texts stray too far from tradition” (1989, 27). Noting the “conservative” nature of texts, Connors admits “textbooks, which change with glacial slowness, provide stability amid the shifting winds of theoretical argument” (1986, p. 190). Likewise, Miles summarizes that “much excellent scholarship on composition textbooks emphasizes the normative and reproductive function circulating through both the books themselves and the pedagogical practices surrounding textbooks” (2002, p. 29).

While Welch argues that “change must begin with the textbook publishers” (1987, p. 279), Bierman realizes that “the textbook in whatever form is only part of the equation for positive change; faculty and student acceptance of any new learning paradigm is critical” (2006, p. 3). Finally, Miles encourages practitioners in the discipline ”to interrogate our own complicity in composition textbook publishing processes, and that there is considerable revision we can enact by inserting ourselves . . . into the process at appropriate points (Miles, 2000, p. 28).

Technology and Composition

"Technologies are not mere exterior aids but also interior transformations of consciousness, and never more than when they affect the word"

(Ong, 1982, p. 82).

As Dennis Baron points out, "the computer is simply the latest step in a long line writing technologies" (1999, p. 17). Like writing itself, or the pencil, or the telegraph, or the typewriter, the computer "promises, or threatens, to change literacy practices for better or worse, depending on your point of view" (1999, p. 15).

Initially, the introduction of computers into writing classrooms was met with "a sometimes unquestioning faith in the ability of computers to help our students learn to write" (Walker, 2002). Interactive drill-and-skill grammar exercises would improve mechanics, word-processing would foster revision and correctness with the use of spell- and grammar-checkers, students would collaborate through the use of networked computers, and multicultural communication across the globe would result from use of the Internet. These "initial efforts at understanding and implementing computers in writing classrooms were full of enthusiasm, as English teachers and scholars began to recognize the new ways of writing and thinking that computers seemed to invite" (Haas & Neuwirth, 1994, p. 320).

Eventually, this enthusiasm waned, and the field took a more critical perspective on the potential effects that computers might have on literacy. Scholarship within the field of Composition Studies realized that technology in

general and computers in particular could "enact—among other things—the gestures and deeds of colonialism, continuously and with a great deal of success" (Selfe & Selfe, 1994, p. 482). Selfe & Selfe continue analyzing the initial optimism regarding computer technology in composition classrooms, stating, “An overly optimistic vision of technology is not only reductive, and thus, inaccurate, it is also dangerous in that it renders less visible the negative contributions of technology that may work potently and effectively against critically reflective habits and efforts of good teachers and students” (p. 482).

This “critically reflective” approach ushered in what Walker refers to as “the second wave” in the history of the computers-and-writing field (2002). In this “second wave,” scholars looked beyond the initial enthusiasm to discover

> an exclusive focus on the positive changes associated with technology often serves to distract educators from recognizing how existing social forces actually work to resist change in connection with technology; how they support the status quo when technology threatens to disrupt the world in any meaningful way; how our culture, and the social formations that make up this culture, react with a special kind of conservatism to technology, even as we laud the changes it promises to bring. (Selfe, 1999, p. 293)

Likewise, Baron recognizes the need for more critical examination of technology, especially with regard to initial enthusiasm, as he notes that “researchers tend to look at the cutting edge when they examine how

technology affects literacy. But technology has a trailing edge as well as a down side, and studying how computers are put to use raises serious issues in the politics of work and mechanisms of social control" (1999, p. 32).

In light of the skepticism that eclipsed initial enthusiasm, scholars began asking questions about the potential of technology to productively address the same inequities that were associated with its introduction into writing instruction:

- How can we use computers as a catalyst for positive social and political change in our writing classrooms and our educational system?
- How can we use computers to help us address the marginalization and silencing of individuals because of race, age, gender, handicap?
- How can we use computers to promote increasingly egalitarian exchanges among groups of people within our classrooms who have different levels of privilege and power?
- How can we use computers to promote both collaborative activities among writers and to support dissent in its most productive forms?

These probing, critical questions illustrate the focus and direction of scholarship in this "second wave" of computers and writing, which is marked by a recognition of and investigation into the social and political implications of the use of technology in writing instruction. In the early 1990s, Hawisher and Selfe call for a "balanced and increasingly critical perspective" in the research of the field (1991, p. 62), while Haas and Neuwirth "argue for a new, more complicated approach to research on computers and literacy . . . [that]

will aid us in understanding how computer technologies, literacy, thinking, and culture are connected. Such research is crucial for informing the design of curricula for teaching writing and can guide the wise use of technology in writing" (1994, p. 320).

Walker identifies the publication of *Computers and the Teaching of Writing in American Higher Education, 1979-1994: A History* (1996), the occasion on which the field of computers and composition published its own history, as the end of the "second wave." Walker argues that by this point, the field of computers and writing "had become a recognized (and recognizable) area of specialization within composition studies" (2002).

Today, the field of computers and composition is in what Walker refers to as the "third wave" (2002), in which "technology is ubiquitous in our classrooms, for better or worse. And yet . . . little has changed. We have yet to determine what it is that we are--or should be--teaching in light of changing definitions of literacy in the digital age." Even earlier, Burns recognizes that "ubiquitous technology is the reality" (qtd. In Selfe, 1999, p. ix), while Selfe concedes that "technology is now inextricably linked to literacy and literacy education in this country (1999, p. xxiii).

Baron echoes Walker's uncertainty, stating "computer communications are not going to go away. How the computer will eventually alter literacy practices remains to be seen. . . . it is still too early to do significant speculating" (1999, p. 32). Concurring with Baron and Walker's perspective on the present state of the field of computers and Composition Studies,

Cesarini affirms, “No one can deny that current and emerging technologies are reshaping our views on how we teach and learn. We can, however, question what effect they will ultimately have on our students, ourselves, and our disciplines” (2004 , p. 13). Likewise, Morrisey states, “It is ludicrous to suggest that schools turn back the clock on technology and replace their computer labs with rooms full of typewriters, their laptops with legal pads. But it is equally ludicrous to suggest all is well” (2005, para. 22).

Selfe believes “we remain decidedly undecided about technology;” we are caught between the “contradictory impulses” of believing in the benefits and fearing the effects of technology (1999, p. 292). Similarly, Hawisher and Selfe view “writing classes as sites of paradox and promise” (1991, p. 64). Gruber identifies a similar challenge, recognizing that “many teachers remain in a quandary about how to provide students with enough skills to prepare them for future employment while at the same time enhancing their acquisition of academic and literate discourse” (2000, p. xv). Miles concurs, asserting, “Composition as a field is rife with internal contradictions and inconsistencies” (2000, p. 47). Kress also believes the present state of the field is marked by “radical instability” (2000, p. 134) and is “in a profound state of transition” (2003, p. 8).

Even so, some scholars note the promising changes taking place within the field itself. McAllister observes that “scholarship about computer-enhanced pedagogy is maturing” because, as he also recognizes, “simple positions are becoming less viable” (1999, p. 192-193). Others continue to

call for a move “toward a balanced perspective . . . a more complex vision of technology” (Takayoshi, 2000, p. 132).

Despite decades of continuing scholarly work and modified perspectives on technology and teaching, Selfe & Selfe recognize “the tension between optimism and skepticism, enthusiasm and critical awareness, that marks this field” (2002, p. 206). Further, Selfe & Selfe recognize the paradoxical forces at work within field of computers and composition studies:

> In the contested and complex intellectual landscape of world-order changes resulting from the rise of the information age and the rapid development of networked societies, no territory seems less settled, more unstable, less sparsely mapped – and, at the same time, more promising and vigorous – than that formed by the intersection of technology and literacy. (2002, p. 203).

In reviewing the first twenty years of *Computers and Composition*, Moran concludes, “This particular hope – that computers would somehow make a difference in student writing – has been one that ‘springs eternal’” (2003). However, and at the same time, the skepticism that earlier eclipsed initial optimism about technology and literacy instruction persists. Duffelmeyer contributes, “The advent of computers in the composition classroom continues to be heralded as an unprecedented pedagogical and democratic contribution to education, although many composition and educational

theorists have come to question the utopian view of the computer as a neutral tool" (2000).

Duffelmeyer insightfully identifies the two complex and concomitant characteristics of technology and literacy that will consequently be examined in this study: the political and the pedagogical. Investigating the messages about technology being disseminated through the textbooks of the field will yield important and useful information about issues of teaching with technology (pedagogical) as well as the social, economic, cultural, and educational issues linked to teaching with technology (political). In sum, then, Selber states that "for more than two decades the discipline has attempted to make some sense – in social, political, historical, professional, pedagogical, and functional terms – of computers not as computational machines but as literacy environments, environments that leave very few activities, individuals, or structures entirely unaffected" (2004, 471).

Political Issues Related to Technology

"Everything about technologies, their design, distribution, use, and even the way we interpret their effects, are ideologically embedded" (Bertram, 1997, p. 293).

Early enthusiasm for computers in composition focused on the rosy-colored potential for technological literacy to promote social progress and change. Not only have positive changes failed to materialize, but worse, "technology and literacy have become linked in ways that exacerbate current educational and social inequities in the United States, rather than addressing them productively" (Selfe 1999, p. 7). Selfe believes that our cultural

paradigm regarding technology “masks some very real material effects from the national conscience . . . including the reproduction or exacerbation of inequities based on race and poverty” (1999, p. 125-126).

Americans believe and invest in progress; technology offers seemingly unlimited opportunities for seemingly infinite progress. Tyner observes that “just as literacy embodied the ideals of an Industrial Age, technology is positioned as a symbol of enlightened progress in the Age of Information” (1998, p. 17). Other typical American belief systems overlap with this faith in technology and progress: “technology is linked with the social formations of science, economic prosperity, education, capitalism, and democracy” (Selfe, 1999, p. 27). Selber echoes Selfe’s assertions, recognizing “the inextricable ties among literacy, power, culture, and context” (2004, p. 497). Taken together, then, these values form a “potent social and ideological configuration” (Selfe, 1999, p. 130) that has become apparently unassailable.

McLaren (1989, p. 174) identifies similar and subtle subversions in the dominant paradigm’s “dreams and desires . . . (i.e., stories, ideals) against which all individuals are expected to live their lives. . . a ‘common’ worldview, disguising relations of power and privilege.” Haas (1996, p.21) refers to these same dominant values as “cultural myths” of technology. Selfe & Selfe define these myths alongside the technology that they believe fosters them, stating that “technology is an artifact of our culture that is closely and complexly aligned with other social formations that characterize our culture – among them racism, sexism, and classism” (1998, p. 13).

Smith also recognizes “the contemporary dynamics of technology distribution and their disempowering and alienating effects” (2004), while Takayoshi asserts that “recent scholarship is firmly grounded in an awareness that technologies are always ideological, that technologies can be used to both oppressive and empowering ends, and that disempowered groups are more likely to be oppressed than empowered by technologies” (2000, p. 125). Echoing Selfe’s central concerns, Schroeder highlights the detrimental effects of the use of technology in the writing classroom. In referring to “electronic literacy practices,” Schroeder recognizes that

> they can also highlight ethnicity and economics in predictable, and not so predictable, ways. For example, the discursive practices of computers inscribe their own cultural biases by privileging capitalism, social class, standard English, rationalism, and logocentrism. In terms of practices and texts, email can serve to maintain conventional classroom hierarchies, and hypertext can privilege particular intellectuals and inhibit resistance. Beyond the technologies themselves, there are other social issues at stake. For instance, minority and working-class students, many have argued, have less access to computers, and thereby fewer opportunities to master these discursive practices. (2001, p. 3)

In an effort to counter the potential for technology to negatively affect the politics and pedagogy of writing instruction, Selfe argues for developing a critical technological literacy, which she defines as the ability to discern “the

complex set of socially and culturally situated values, practices, and skills involved in operating linguistically within the context of electronic environments, including reading, writing, and communicating" (Selfe, 1999, p. 149). Selfe & Selfe provide an additional perspective on this notion, defining critical technological literacy as "understanding the cultural consequences and implications of technological literacy events, practices, and values – and the need to come to terms with technology as it actually functions in social, political, economic, and cultural contexts" (1998, p. 13). Selfe elaborates on the broader context of her initiative:

> Teachers need to recognize that they can no longer simply educate students to become technology consumers without also helping them learn how to think critically about technology and the social issues surrounding its use. . . . It is also a matter of helping them to understand and be able to assess the social, economic, and pedagogical implications of new communication technologies and the technological initiatives that directly and indirectly affect their lives. (1999, p. 152)

Other scholars also advocate this notion of critical technological literacy as a corrective to superficial and thus dangerous treatments of technology. Duffelmeyer recognizes the important imperative "to develop critical computer literacy, a skill and disposition scholars have stressed the importance of in recent years" (2000).

In his survey of the last twenty years of the journal *Computers and Composition*, Moran entitles the last section of his article covering the present state of affairs: “Computers and critical pedagogy: The current hope” (2003). Similarly, Cessarini asserts, “It is necessary to critically examine the technologies we use in the classroom – to examine them as technology systems, arrived at through myriad legislative policies, political deals, and existing technologies of control” (2004, p. 9). Shapiro & Hughes view “critical reflection on the nature of information itself, its technical infrastructure, and its social, cultural, and even philosophical context as essential to the framework of the educated information-age citizen” (1996). Likewise, Evans believes that “understanding the full effect of technology in the classroom requires seeing the use of technology as something that embodies a complex set of actions, behaviors, discourses, assumptions, and ideologies” (2005, p. 5-6).

Implications for Composition Studies

Ignoring this critical component in the use and examination of technology would result in dire consequences for teachers, students, and the discipline alike. Anson calls for an active, critical examination of technology issues as a means of protecting our educational agency: “The processes of technology . . . will not threaten us as long as we, as educators, make decisions about the worth of each innovation, about ways to put it to good use, or about reasons why it should be rejected out of hand” (1999, p. 276). Similarly, in attempting to maintain intellectual autonomy, Anson suggests the value of critically informed choices about technology:

> We can resist changes that undermine what we know about good teaching and sound ways of working. Such decisions are often difficult. They are highly political, painfully economic, and always value-laden and ideological. But as teachers of writing and communication, we have an obvious investment in considering the implications of technology for working, teaching, and learning, even as that technology is emerging. (1999, p. 276)

More succinctly, Hassett (1996) warns that “if technologies are incorporated without reflection, we fall victim to the ‘danger’ . . . of allowing ourselves to be appropriated by the technology” (p. 25).

Aside from possibly abdicating our agency as educators, ignoring critical technological literacy could result in perpetuating those same social and political inequities that fostered its development initially. Hawisher and Selfe recognize computers “as cultural artifacts embodying society’s values,” which can be used “to perpetuate those values currently dominant within our culture and our educational system” (1991, p. 55). With regard to classroom practices, Hawisher and Selfe further suggest “that electronic technology, unless it is considered carefully and critically, can and will support any one of a number of negative pedagogical approaches that also grow out of our cultural values and theories of writing” (1991, p. 56). Thus, Takayoshi summarily states “Recent scholarship is firmly grounded in an awareness that technologies are always ideological, that technologies can be used to both oppressive and empowering ends, and that disempowered groups are more

likely to be oppressed than empowered by technology" (2000, p. 125). Selber also realizes "the agenda of technology education often amounts to little more than indoctrination into the value systems of the dominant computer culture" (2004, 471). As part of this "agenda of technology education," we must interrogate our composition textbooks for ideological representations of technologies. If we do not, we would be professionally and ethically irresponsible; we would be perpetuating values and belief systems espoused in composition textbooks that we may not realize are included or that we have simply ignored.

LeCourt recognizes this danger and suggests that "without an equal attention to the critical forms of thought and action we presume technology is so well suited for, then, we risk allowing dominant ideologies to, yet again, reincorporate the radical within its own auspices" (1998, 293). Selfe (1999, p. 144) realizes the same danger, stating that "when we allow ourselves to ignore technological issues, when we take technology for granted, when it becomes invisible to us, when we forget technology's material bases – regardless of whether or not we use technology – we participate unwittingly in the inequitable literacy system. "

Teachers of language and literacy are specifically charged with a "professional responsibility to understand and work with the complex relationships between humans, the language they use, and the social contexts within which both exist" (Selfe 1999, p. 21). Duffelmeyer extends this professional responsibility, stating that "while we adopt more nuanced and

complicated stances technology as scholars and practitioners, we must as teachers help our students achieve this balanced perspective as well" (2002, p. 357-358).

Similarly, Takayoshi advocates this critical component to literacy instruction and alerts us to the dangers of overlooking it:

> . . . many undergraduate students are not asked to think explicitly, let alone critically, about the computers they are being required to use throughout the curriculum. In this way, the seamless introduction of computers into higher education might serve as a normalizing function. . . . If students are not encouraged in any of their coursework to become technology critics, they might very easily assume a hegemonic position in which they simply accept computers as inevitable and natural (1996, p. 199-200).

Pedagogical Issues Related to Technology

Having established the definition of and the necessity for critical technological literacy, how is this critical technological literacy enacted? How is it developed, encouraged, and practiced? To what end? In a general yet powerful description, Duffelmeyer explores these issues in relation to our teaching practices:

> Our pedagogy . . . needs to provide an occasion for students to reflect on and articulate their relationship to digital technologies, the forces that influenced the formation of that relationship, and the ways that they might develop some agency within the parameters of that

> relationship, thus opening the way for them to develop the more complicated and mature positionings relative to technology that computers and composition scholars advocate" (2002, p. 358).

Practically speaking, most scholars envision a pedagogy that uses computers as both the subject and the object of inquiry, a program that "involves using technology to learn about the technology" (Cesarini, 2004, p. 10). In her courses, Duffelmeyer uses computers "as both content and as means," as both "topic and environment" (2000). Haas (1996) describes this same concept by suggesting that "the images seen by looking *through* technology may be distorted without looking *at* the technology itself in a systematic way" (p. xi). Hassett expounds on this notion:

> The point of critical reflection is to foreground technological issues, including writing technologies, in our writing classes, research, and theories. Rather than merely implementing technologies into the writing classroom (or into the writing process), we can examine the effects these technologies have on our students by making technology the subject of discussion and analysis" (1996, p. 25).

Teachers. Specific means and ends of critical technological literacy must be enacted in several ways by the practitioners in the discipline. In general, teachers involved with literacy are charged with helping "colleagues, students, administrators, politicians, and other Americans gain some increasingly critical and productive perspective on technological literacy"

(1999, p. 24). Especially as literacy educators, we ourselves must engage in the critical assessment of technological innovation and implementation:

> The processes of technology, even when they are introduced to us by administrations more mindful of balancing budgets than enhancing lives, will not threaten us as long as we, as educators, make decisions about the worth of each innovation, about ways to put it to good use, or about reasons why it should be rejected out of hand. (Anson, 1999, p. 275).

Failure to critically consider technology with all its attendant issues would result in our abdicating agency within our departments, institutions, and lives beyond the university. Will IT staff decide which software programs to purchase for the university, or will the professors who are expected to use the programs decide? Will professors be required to teach online courses, or will we be able to choose the delivery method of our courses? Will money be allotted for additional technological resources, in an effort to impress parents, alumni, and future students with the latest and most fashionable bells and whistles? Or will the money be spent according to the demands and desires as determined by faculty? Who has control over these matters? Where and how is educational and administrative power situated? Anson explores one method to prevent our subtle and gradual, sometimes welcomed, relief of responsibility for the implementation of technology into the writing classroom:

> The key to sustaining our pedagogical advances in the teaching of writing, even as we are pulled by the magnetic forces of innovation, will

> be to take control of these technologies, using them in effective ways and not, in the urge for ever-cheaper instruction, substituting them for those contexts and methods that we hold to be essential for learning to write. (1999, p. 263)

Additionally, using part of the subtitle of her book, Selfe encourages us to “pay attention to technology and the ways in which technology is currently being approached in our culture at large and within the public schooling system” (1999, xxii). Further, Selfe calls for “more fully informed debates acknowledging the complex relationships between technology, literacy, education, power, economic conditions, and political goals” (Selfe, 1999, xxii).

Duffelmeyer alerts instructors to the “necessity of deliberately creating opportunities within a computer-assisted teaching environment for students to think explicitly about cultural assumptions of technology” (2000). In sharing her own particular pedagogical practices, Duffelmeyer reveals the importance of “asking [students] to develop the habit of overcoming comfortable inertia to attend to the taken-for-granted, presumably inevitable arrangements and opinions that comprise their worldview” (2000). A similar role for teachers of critical technological literacy deems that “instructors must help students to understand how autonomous constructions of technology as a neutral tool can be disempowering” (Evans, 2005, p. 20)

Related elements of a pedagogy that incorporates critical technological literacy address the social aspect, suggesting that “computer literacy courses should take account of, and develop critical perspectives for, the largely non-

native uses of technology, especially socially supported uses, which represent potentially the most disruptive forms of new linguistic space" (Hoffman and Vance, 2005, p. 360). Similarly, the possible reproduction of social hierarchies through the use of technology and within our own classrooms concerns Hawisher and Selfe, who caution that "unless we remain aware of our electronic writing classes as sites of paradox and promise, transformed by a new writing technology, and unless we plan carefully for intended outcomes, we may unwittingly use computers to maintain rigid authority structures that contribute neither to good teaching nor to good learning" (1991, p. 64).

The social and political issues related to using technology in literacy instruction compel practitioners to remain vigilant in their critical perspectives. Smith recommends that "a pedagogy for developing critical technological literacy should, therefore, always have a skepticism toward the discourses of technology that emanate from official and authoritative sources, and should conceptualize the literacies related to technologies as always already political" (2004).

Similarly, teachers in the field of computers and composition

> Any critical praxis must begin with critical reflection aimed at making the individual effects of ideology apparent, and, thus, open to critical scrutiny. . . . The ultimate goal, of course, is to encourage individuals to uncover the ideological influences on such seemingly

> normal and rational responses so that different actions might be imagined. (LeCourt, 1998, p. 277).

As instructors and scholars in the field of computers and composition, we must also maintain academic agency and integrity by contributing to the ever-evolving definition of what it means to be literate in today's highly technologized world. What does it mean to be literate in a culture that increasingly shifts its focus from the page to the screen? How do we determine if someone is literate in an age where multimedia are routinely incorporated into any and almost every communication act? These decisions will have profound repercussions throughout higher education, society, and the economy. Luke highlights the inherent dangers of disinterest in or dismissal of technological issues relating to literacy:

> Literacy requirements have changed and will continue to change as new technologies come on the marketplace and quickly blend into our everyday private and work lives. And unless educators take a lead in developing appropriate pedagogies for these new electronic media and forms of communication, corporate experts will be the ones to determine how people will learn, what they learn, and what constitutes literacy. (2000, p. 71)

"Appropriate pedagogies" must serve as the foundation for our continued explorations of and experiments with technology, and most scholars call for critical technological literacy as a crucial component.

LeCourt recognizes this in stating that, “writing technologies begin the critical reflection necessary to critical literacy’s ultimate goal: socially transformative action” (LeCourt, 1998, p. 284). Selfe also identifies even small opportunities for “personal beginning points for initiating change” (1999, p. 34), one of which could include the thoughtful selection of a handbook.

Students. The results of a study comparing two sections of the same writing course, one taught with technology-enhanced methods and the other taught with traditional textbook methods, demonstrate that students in the technology-enhanced section evaluated both the course and their own learning processes more favorably than the textbook- taught section. The same study revealed “substantive, positive difference” in the writing produced by the students in the technology-enhanced section (Jenson and Morrison, 2001, p. 234). These findings confirm that students enjoy using technology in their courses and feel they benefit from the use of technology in their courses.

Students generally engage in critical thinking/writing during the first year of college, but they require specialized training to become technology critics. While Takayoshi admits that students may “enter our classes with complex and contradictory attitudes toward technology,” she also encourages pedagogies that require students “to articulate those attitudes and explore ways of negotiating their assumptions and implications” (Takayoshi, 1996, p. 200). Likewise, Cesarini believes that students

> deserve to be made aware of the rhetoric of control gripping the industry [information technologies], and how this control positively and

> negatively impacts their education and lives. They deserve to use technologies not merely as uninformed end users, not merely as skilled professionals, technically competent in rote, application-specific tasks; rather, our students deserve to understand how the various information technologies they intentionally use and unintentionally encounter every day work. They deserve to know not merely how to use certain programs deemed relevant to their respective majors but how these programs were arrived at in the first place and how they continue to evolve. (p. 12)

All of these skills and strategies are subsumed by Selfe's concept of critical technological literacy, which, according to scholars, is an absolute requisite: "If students don't concomitantly acquire critical computer literacy, they will not be able to affect the conditions of their lives, for it is critical computer literacy that allows us to comprehend our relationship with computer technology and its uses, possibilities, and meanings" (Dufflemeyer, 2000).

CHAPTER III

PROCEDURES

Approaches

Contructivist Grounded Theory

In examining the role and representation of technology in freshman composition handbooks, my research methods adhere to grounded theory, which “consists of systematic inductive guidelines for collecting and analyzing data to build theoretical frameworks that explain the collected data” (Charmaz, 2000, p. 509). Grounded theory methods do not specify particular techniques for data collection but rather “move each step of the analytic process toward the development, refinement, and interrelation of concepts” (Charmaz, 2000, p. 510). Grounded theory strategies often entail “simultaneous collection and analysis of data” and “comparative methods” (p. 510).

This is, in fact, how I initiated my data collection. After surveying all of the books separately, I noticed a prominent feature of the treatment of technology in one particular text. After examining that feature in depth in the original textbook, I would search out references to the same feature in a different text, across all five handbooks. Significant differences among the treatments of a certain technological issue began to emerge while data were being simultaneously collected and compared.

Once the data is collected and analyzed, categories are developed, and “these categories must explain the data they subsume. Thus grounded

theorists cannot shop their disciplinary stores for preconceived concepts and dress their data in them" (Charmaz, p. 511). Grounded theory calls for coding emerging data as it is collected, which begins to categorize and define the data. Codes are created inductively through the examination of the data; thus it is inappropriate to "paste catchy concepts on the data" (Charmaz, 2000, p. 515). Similarly, "the researcher's interpretations of data shape his or her emergent codes in grounded theory" (Charmaz, 2000, p. 515). Thus theories are developed through the process of coding, as "grounded research is an emergent process rather than the product of a single research problem logically and deductively sequenced into a study" (Charmaz, 2000, p. 522).

This inductive process was the most surprising and rewarding feature of my research study. Initially, I felt unprepared, "unarmed," to launch into data collection and analysis without some (deductive) framework on which to hang my methodology and findings. The uncertainty finally resulted in a productive research process that emerged organically from the materials under examination, free of prefabricated concepts or codes. Trends, patterns, and threads became evident purely and relevantly through inductive analysis.

As categories and codes emerge from the data, "the researcher searches for those that have internal convergence and external divergence. That is, the categories should be internally consistent but distinct from one another" (Marshall and Rossman, 1999, p. 154). Several of my findings compare the same features of textbook treatment of technology across all five sample handbooks. All five handbooks address the same issue in different

ways, heightening the reliability and validity of my study. When a particular handbook did not conform in addressing a certain topic, the absence was conspicuous.

The analysis of the data, then, relates a story about the social processes and situations being studied, but the story does not “simply unfold before the eyes of an objective viewer” (Charmaz, 2000, p. 522). This feature of grounded theory necessarily involves the epistemological assumptions of the researcher, thereby taking on an additional qualifier to its moniker: constructivist grounded theory:

> A constructivist grounded theory distinguishes between the real and the true. The constructivist approach does not seek truth – single, universal, and lasting. Still, it remains realist because it addresses human *realities* and assumes the existence of real worlds. . . . A constructivist grounded theory recognizes that the viewer creates the data and ensuing analysis through interaction with the viewed. Data do not provide a window on reality. Rather, the ”discovered” reality arises from the interactive process and its temporal, cultural, and structural contexts. (Charmaz, p. 523-524)

Silverman reinforces a researcher’s qualitative and constructivist orientation, stating that he or she should be “more concerned with the processes through which texts depict ‘reality’ than with whether such texts contain true or false statements” (2000, p. 128). This distinction between

analyzing the veracity of a text as opposed to analyzing the constructed reality of the text deserves clarification and emphasis:

> In paying due attention to such materials [texts], however, one must be quite clear about what they can and cannot be used for. They are “social facts,” in that they are produced, shared, and used in socially organized ways. They are not, however, transparent representations of organizational routines, decision-making processes, or professional diagnoses. They construct particular kinds of representations with their own conventions. (Atkinson & Coffey, 1997, p. 47)

Epistemological Assumptions

In examining the handbooks selected for this study, I consider texts to represent choices regarding the reality they relate. This belief is echoed by Freebody, who elaborates on this idea:

- All texts embody a number of purposeful choices about how reality is to be displayed;
- These choices have consequences for what it is that a text can afford about that reality; and
- These consequences are not only to do with interpretation; they also have implications for the varying opportunities people have for appreciating that this text is not a definite, unchallengeable representation of that reality. (2003, p. 175).

In maintaining a constructivist orientation to research, I am interested in the ‘reality’ that is represented in textual format. Similarly, I concur with Freebody’s assertion that “Texts are cultural artifacts, producible and recognizable by cultural members as acts that communicate meaningful content” (2003, p. 179). Thus, I engage with a text as an object that embodies and constructs a certain account of ‘reality.’

In researching my methodology, I did come in contact with many prefabricated categories or codes that entered my consciousness but did not appreciably affect my perspectives. For example, Bruce identifies six different approaches or “stances” toward technology: neutral, oppositional, utilitarian, skeptical, transformational, and aesthetic. Finally, Bruce recommends his own unique stance toward technology: transactional (1997). These various ways of interacting with technology were ultimately unsuitable for my research design, but they did originally provide me with an idea of a basic schema for categorization.

Similarly, Hall articulates three positions that readers might adopt toward any text: hegemonic, negotiated, and oppositional (1980). Takayoshi expands these three positions to describe the ways in which students might “interrogate” technology (1996, p. 200). Another list of suggested approaches to technology includes the following four possibilities:

- Ontological – what technology is
- Pragmatic – what technologies do
- Phenomenological – how technologies affect our experiences

- Historical – what were the social/material conditions/contexts out of which the technology evolved? (Menser and Aronowitz, 1996)

Case Study/Cross-Case Analysis

This study is designed as a cross-case analysis of five specific handbooks. Yin (1993, p. 3) states that "case study is the method of choice when the phenomenon under study is not readily distinguishable from its context." One of the most insidious and complex features of communicating about technology is that the phenomenon (using technology) is so embedded in its context (views about technology). In other words, because technology is so often "transparent" (Haas) and "ubiquitous" (Dufflemeyer), the danger is that the attendant social, political, and educational issues will fail to be properly considered. A major component of this study, and one which justifies the case study approach, involves uncovering assumptions about technology as represented in textbooks, then making explicit any dissonance between paradigm and practice, between ideology and reality, and between context and phenomenon.

Yin (1983) also advocates a replication strategy, in which a conceptual framework guides the first study, then subsequent studies are conducted in search of pattern matches. Grounded theory (Glaser, 1978) advocates the same principle, building the framework inductively before refining it with multiple comparison groups. Furthermore, Yin (1983) allows for the synthesis of quantitative data with qualitative data in order to collect the most representative data.

The synthesis of these three processes served as the foundation for my comparative data collection and analysis. Initially, I began collecting quantitative data from each of the textbooks, in order to gain the most concrete evidence by the most efficient means possible (thereby instilling a sense of accomplishment early on). Immediately, patterns and trends across all the samples materialized. If one text obviated or ellipted a section or issue that all other samples included, the absence was made conspicuous.

The quantitative data compiled from this initial phase of my research appears in the Appendices; the data from each textbook comprises a separate appendix. This data was instrumental in the preliminary stages of my research but finally did not warrant inclusion in the body of this report.

Data Selection

Bauer (2000) identifies two kinds of texts: those produced in the course of research or those already produced for a different purpose. The latter are considered “the classic materials of content analysis” (p. 136). The handbooks under investigation in this study certainly adhere to Bauer’s qualification.

Purposive sampling was used to select the specific cases examined in this study. As its name implies, purposive sampling allows for the selection of a case “because it illustrates some feature or process in which we are interested” (Silverman, 2000, p. 104). Purposive sampling does not imply haphazard or meaningless selection criteria; rather, it “demands that we think critically about the parameters of the population we are interested in and

choose our sample carefully on this basis" (Silverman, 2000, p. 104). Similarly, Stake recommends, "For qualitative fieldwork, we draw a purposive sample, building in variety and acknowledging opportunities for intensive study" (2000, p. 446).

The selection of handbooks in particular as the objects of study, as opposed to rhetorics, readers, or more generalized textbooks, was initially prompted by their preeminence and predominance in freshman composition classrooms. Indeed, Hawhee asserts "handbooks write the discipline" and "discipline the writer" (1999, p. 504). In particular, the composition handbook has been referred to "an ever present artifact that has indeed informed and shaped prevailing presumptions about writing pedagogy" (Hawhee, 1999, p. 504). Connors describes "the handbook as a form of textbook that . . . eventually came to assert almost total dominance over college-level writing instruction" (1983, p. 87). Perrin (1988) explains that "handbooks offer a general look at the teaching emphasis in composition," and handbooks share general patterns that lend themselves to evaluation:

- Standard in size
- Consistent in addressing basic features of composition
- Concise
- Mainstream
- Revised regularly
- Increasingly broader focus

Perrin concludes, “To look at handbooks, then, as indicators of the current state of writing . . . is a sensible strategy” (p. 15) Even though the freshman composition handbook generally receives less rigorous professional consideration than other textbooks, Meyers believes “the enormous sales and still-greater use of these books make it one that should not be neglected” (1991. p. 342).

The influence of the handbook also has far-reaching implications, since “handbooks teach our students a great deal, and what they teach is not neutral, but rather based on theories of writing and, indeed, theories of the world” (Segal, 1995, p. 111). Segal continues, stating that “all handbooks make claims about what constitutes good writing. For the most part, they do this in two ways – by what they say and by what they display” (Segal, 1995, p. 117). Below, Figure 1 compiles the handbooks under examination in this study.

Author(s)	Publication Date	Title	Edition	Publisher
Faigley, L.	2005	The Penguin Handbook	2nd edition	Pearson/Longman
Glenn, C., Miller, R. K., Webb, S. S., & Gray, L.	2007	Hodges’ Harbrace Handbook	16th edition	Thomson Higher Education
Hacker, D.	2007	A Writer’s Reference	6th edition	Bedford/St. Martin’s
Lunsford, A.	2008	The St. Martin’s Handbook	6th edition	Bedford/St. Martin’s
Troyka, L. Q., and Hesse, D.	2007	Simon & Schuster Handbook for Writers	8th edition	Prentice Hall

Figure 1. Texts selected for examination.

Faigley, L. (2005). *The Penguin handbook*. 2nd ed. New York:

Pearson/Longman.

Aside from representing Pearson/Longman publishing, this text benefits from the reputation of its author, which was a significant factor in selecting this text for inclusion in this study. In an introduction to the text on the publisher's website, readers are informed that "throughout, Lester Faigley's expertise in matters relating to technology is consistently evident, including integrated references to the text's comprehensive and meticulously constructed Web site."

Also on the publisher's website, Faigley is credited with "rethink[ing] the way handbooks present information and ideas with a reference that's tailored for today's visually and technologically oriented students." Continued exposition on the companion website with regard to technology relates,

> On everything from Internet research and documenting online sources to cutting-edge chapters on writing for the Web and creating visuals for papers and oral presentations, *The Penguin Handbook* ensures that student writers are adequately prepared for anything they are likely to encounter in today's academic environment and beyond.

The publishers' website also boasts the following advantages of this text:

- "expressly created to engage the visual and technological interests of today's students"
- "superior coverage of technology"

- “the first, and still the best, handbook for visual learners“
- “comprehensive coverage of technology throughout”
- “new ‘Writing Smart’ boxes that give practical tips and suggestions for working effectively on the computer (alone and collaboratively) while writing, revising, editing, and researching”
- “This [2nd] edition includes in-depth treatment of citing and evaluating electronic sources and more models for MLA citation than any other handbook on the market.”

The publisher’s website hails this second edition as having URLs throughout the book, which reference the handbook’s companion website and “take students to specific pages on the site where they’ll find relevant, multimedia materials.” The Preface of the text itself describes the companion website as “useful” and “rich” and states that the companion website was created “to offer students practice in key areas of writing and revision” (xv).

Key features of the Companion Website include the following:

- Student Writing Samples with Audio Commentary
- Writing in the World Projects
- Creating a Web site and Using Databases
- Help Desk and Punctuation Personality Quiz
- Common Errors Workbook
- Common ESL Errors Workbook (p. xxiii)

In the textbook itself, the Penguin Handbook claims the following for itself:

- “supporting researching and writing with technology, guiding students in the use of library databases, visual archives, and the Web” (p. xv)
- “includes the most extensive guidance in using library databases available in any handbook” (p. xxi)
- “understanding that students today typically begin their search process on the Web” (p. xxi)

Like other handbooks examined here, *The Penguin handbook* is described on the publisher’s website as a staple in the publishing industry: “The first edition established itself as the best-selling handbook to enter the market in fifteen years. The second edition of this extraordinary handbook continues to lead the market.” With the apparently vast number of students using this text, examining its perspective on technology becomes that much more relevant.

Finally, *The Penguin handbook* includes a “glossary of grammatical terms and usage” as well as an index.

Glenn, C., Miller, R. K., Webb, S. S., & Gray, L. (2007) *Hodges’ Harbrace Handbook*. (16th ed.) Boston, MA: Thomson.

Evidenced by its sixteenth edition, this text maintains perennial popularity and has also received significant scholarly attention. Connors (1997, p. 95) notes that after its initial publication in 1941, the *Harbrace handbook* was “so successful that it would become the paradigm, the model for all handbooks after it.” Echoing closely Connor’s declarations, the Preface

of the *Harbrace* claims “it has served as the paradigm for all the successful handbooks that followed” (p. xvii). The original 1941 edition, entitled the *Harbrace Handbook of English*, became “firmly established as the granddaddy of all handbooks,” and according to the preface of the 16th edition, current editions enjoy similar eminence based on “the Hodges’ tradition of up-to-date reliability and practicality” (xviii). Hawhee (1999, p. 505) states that the Harbrace “still stands as the textbook used by more composition instructors and students than any other,” citing sales figures to prove that it has sold “more [copies] than any other college textbook ever.” Cited as being “From the Publisher” on Barnes & Noble’s web-ad for the textbook, the *Harbrace* exists as a “market-leading handbook with groundbreaking treatment of writing.” As a result of its widespread use, the Harbrace Handbook claims, in its Preface, that it “provides priorities for any writing course” (xix).

The *Harbrace* has also received significant scholarly attention, further qualifying it for continued examination (Bell, 2000; Broadbent, 2000; Connors, 1983; Hawhee 1999 & 2000, Horner, 2000).

This text pioneered the inclusion of research writing: “the Harbrace introduced the final element that had been missing from pre-1941 handbooks: a chapter on the full research paper, which quickly became *de rigueur* in both handbooks and composition courses” (p. 96). The importance of technology in conducting research today makes this facet of the *Harbrace* especially significant.

This 16th edition claims that many of its chapters “have been extensively revised in light of contemporary composition pedagogy” (xx). This claim will be thoroughly tested through the examination of the content of the handbook and a comparison to recent scholarship in the field.

The same section of the Preface, which lists specific chapter revisions in this 16th edition, offers a chapter on “E-documents” and guidance related to online research, “giving special attention to the citing of sources accessed through databases” (xxi).

Among the “Student Supplements” listed in the Preface of this text, the companion web site offers “links, sample syllabi, quizzes and tests, sample student papers, and other student and instructor resources” (xxiv). Ironically, nowhere in the section that describes this feature of the textbook does the web address actually appear. The Harbrace includes a “glossary of terms” and an index.

Hacker, D. (2007). *A writer’s reference*. (6th ed.). Bedford/St. Martin’s.

This text was primarily chosen because it serves as the required handbook for composition courses at IUP (at the initiation of my research). The publisher’s website cites use of *A writer’s reference* by “nearly 3 million students at 1,600 colleges and universities.” In the “Preface for Instructors,” a “publisher’s note” informs readers that *A writer’s reference* “is not only the most widely adopted English handbook on the market but also the best-selling college textbook of any kind in any discipline. It literally revolutionized the handbook genre” (p. xviii).

The publishers' webpage makes the following claims for this 6th edition:

- "the easiest handbook to use"
- "the easiest handbook to understand"
- "The text that has always responded to changes in the field."
- "helps students meet the very real challenges of research writing in the digital age."

Listed as a new feature in the 6th edition, this handbook includes "guidelines for writing about verbal and visual texts" (xxi). Oddly, content relating specifically to "visual rhetoric" is relegated to "supplemental" status and can be packaged or custom published "to create a handbook that supports your course" (p. xxii).

The publisher's website describes the textbook's companion Web site as "fully integrated," and "robust." Student resources available on the companion website include:

- Writing exercises
- Grammar exercises
- Research exercises
- Language Debates
- ESL help
- Model papers
- Research and Documentation Online
- Tutorials
- Resources for writers and tutors

- Additional resources (p. xi)

The companion Website contains more than 1,000 grammar, writing, and research exercises. In fact, no exercises at all appear in the textbook itself. Students must, therefore, visit the companion website for any and all exercises and practice. Of all the handbooks examined in this study, *A writer's reference* is the only handbook to relegate exercises solely to the online component of the textbook. This text does supply an index but no glossary.

Lunsford, A. (2008). *The St. Martin's handbook*. 6th ed.

Like Faigley's *Penguin* handbook, this text benefits from the reputation of its author; the publisher's website introduces Lunsford as "one of today's most highly regarded figures in rhetoric and composition."

The publisher's web site also claims that the text offers the following:

- "extensive coverage of technology"
- "four new chapters on working with media"
- "integrated coverage on computers and writing" and "Links to the Web."
- "As a full text or reference, *The St. Martin's Handbook* has everything - from argument to research to writing for the Web - for the way writing is taught today."
- "the only handbook informed by research into how students actually write."
- "for the way students write…right now."

The Preface previews a “discussion of computers and writing . . . throughout the book,” as well as “practical tips [that] help students incorporate computers into their writing in every way, every day” (p. iv). Part II of the textbook, entitled “Considering Media,” consists of four chapters about writing online. Computer icons throughout the book answer questions related to writing with technology, and an “Online Writing and Research Directory” at the end of the textbook labels and catalogues each icon. The text includes a “glossary of terms,” a “glossary of usage,” and an index.

Troyka, L. Q., and Hesse, D. (2007). The Simon & Schuster Handbook for Writers. 8th ed. Upper Saddle River, NJ: Prentice Hall

Hesse served as the 2005 chair of CCCC, lending to the relevance and credibility of the text. This text has three chapters devoted to writing with technology and extensive “technology support” for the goals of a freshman writing course, in the form of at least seven different online resources, including “peer-to-peer technology training” advertised to “strengthen your [writing] program.”

In the Annotated Instructor’s Edition, the preface describes the textbook:

- “a comprehensive handbook that consistently applies up-to-date theory in rhetoric, linguistics, and learning” (AIE-iv).
- Includes “specially commissioned essays [that] . . .summarize current scholarship and include thorough annotated bibliographies” (AIE-iii).

The first of these essays provides an overview of articles and authors under the section heading “Computer Technologies and Collaborative Writing.” This section concludes with this admonition: “It is therefore incumbent on literacy educators to pay close attention to these new technologies, to their uses and distribution in schools, and to the relevant social and political issues” (Gleason, 2007, p. AIE-4).

The preface available to students then advertises the following strengths with regard to technology:

- “coverage and support for writing with technology”
- three revised and updated chapters regarding media and online texts (v)
- An entirely new chapter in this eighth edition addresses analyzing visuals, and three separate chapters incorporate new coverage of writing using visuals (vi)
- Includes everything “from writing for the Web to writing using visuals” (iv).
- “the use of computer research strategies is fully integrated throughout the book” (vi).
- The “valuable and integrated” Web site promises “to help students get better grades and instructors to manage their courses” (viii).

This new website includes the following:

- Interactive eBook

- Diagnostics and Personal Study Plan
- English Tutor Center
- Exchange
- Research Navigator
- Interactive, Self-Graded Exercises
- Writing and Grammar Practice for ESL Students
- Blue Pencil Exercises
- Optional Plagiarism Detection Software
- Understanding Plagiarism
- Writing Matters Videos
- Research and Documentation Web Site
- Course Management
- Student Workbook and Answer Key
- The Prentice Hall WAC PAC (ix-xi)

The first item presented on the list, the Interactive eBook, "includes a complete online version of the book unlike any other" (ix). The electronic version of the text is searchable by the table of contents, index, or heading number, and students can annotate and highlight their eBooks the same way they would with a paper hard-copy version of the text. This handbook includes a "terms glossary," a specialized ESL index, and a standard index.

Other handbooks were rejected because of markedly minimal coverage of technology issues, relative obscurity in the field (sales/ranking), and/or redundancy of publisher: *Scott Foresman Handbook for Writers*, *The*

New Century Handbook, *The Allyn & Bacon Handbook*, *The Bedford Handbook* (same author/same publisher as *A Writer's Reference*), *The Little, Brown Handbook*, *Prentice Hall Handbook for Writers*, *The Holt Handbook*, *The Blair Handbook*, *The Wadsworth Handbook*. Figure 2, below, illustrates the relative popularity of the five handbooks under examination in this study, according to sales ranking.

Title	Barnes & Noble Sales Ranking	Amazon Sales Ranking
Harbrace Handbook	26,637	• 11,671 in Books • 20 in Academic & Commercial • 25 in Grammar • 52 in Writing Skills
The Penguin Handbook	No figures available	478,383 in Books
Simon & Schuster Handbook	39,483	• 18,421 in Books • 33 in Academic & Commercial • 37 in Grammar
St. Martin's Handbook	79,729	88,048 in Books
A Writer's Reference	2.365	16,051 in Books

Figure 2. Sales rankings for texts, Sept. 12, 2008.

Data Analysis

Two methods of analysis were used in examining the selected cases: content analysis and historical analysis.

Content Analysis

In examining closely the central texts of this study, content analysis will constitute the primary methodology. The operative definition of content analysis that most closely aligns with the particular methodology used in this study specifies the use of "a set of procedures to make valid inferences from

text. These inferences are about senders, the message itself, or the audience of the message" (Weber, 1985, p. 9). As opposed to classical content analysis, which typically enumerates semantic or linguistic (syntactical) events in a text, content analysis, for the purposes of this study, entails a qualitative focus, in which "researchers exemplify a common belief that they can provide a 'deeper' understanding of social phenomena than would be obtained from purely quantitative data" (Silverman, 2000, p. 89).

Reinforcing constructivist grounded theory, Bauer attends to the issue of validity: "The validity of a CA must be judged not against a 'true reading' of the text, but in terms of its grounding in the materials and its congruence with the theory of the researcher, and in the light of his or her research purpose" (2000, p. 133).

Bauer also identifies dual purposes in content analysis. Focusing on the source itself, the text under investigation serves as a "*medium of expression*," in which "CA allows us to construct indicators of worldviews, values, attitudes, opinions, prejudices and stereotypes," (2000, p. 133-134). Focusing on the audience, the text under investigation serves as a "medium of appeal: an influence on people's prejudices, opinions, attitudes, and stereotypes" (p. 134). Finally, Bauer identifies a significant benefit of content analysis, claiming that it "reduces the complexity of a collection of texts" (2000, 132).

Historical Analysis

A portion of this study attempts to trace the evolution of textbook treatments of technology through successive editions of each of the five handbooks. Earlier editions of various handbooks were examined to identify changes and trends through time, as shown in Figure 3.

Author(s)	Publication Date	Title	Edition	Publisher
Faigley, L.	2003	The Penguin Handbook	1st edition	Longman
Glenn, C., Miller, R. K., Webb, S. S., & Gray, L.	2004	Hodges' Harbrace Handbook	15th edition	Thomson/Heinle
Hacker, D.	2003	A Writer's Reference	5th edition	Bedford/St. Martin's
Lunsford, A.	2003	The St. Martin's Handbook	5th edition	Bedford/St. Martin's

Figure 3. Earlier editions of texts.

My methodology aligns closely with Stephen North's outline of historical inquiry, which he describes as "a search for patterns that can be deemed meaningful, in this case, patterns of some kind(s) of features in the text regarded as evidence" (1987, p. 75):

1. Identify problem
2. Identify relevant texts
3. Search for relevant texts
4. Assemble and validate relevant texts
5. Seek pattern(s) in texts
6. Explain the patterns: Create a narrative
7. Relate new narrative to existing narrative

8. Disseminate to a wider audience. (1987, p. 69)

These are, in fact, the steps through which part of my research progressed and as a result of which I was able to discern meaningful patterns and trends.

CHAPTER IV

DATA AND ANALYSIS

Articulated Goals

The explicitly stated goals in each of the handbooks affect basic content and coverage of topics, including technology. Faigley introduces the 2nd edition of *The Penguin Handbook (PH)*, explaining that it

> is designed for students who are learning to write in a visual era. It begins with the idea that writing is a visual medium . . . and it understands and stresses the connections between what the writing students do in college to the writing (and presentations) they will undertake in their professional and public lives. (2007, p. xv)

Indeed, the *Penguin* "stresses the visual nature of texts" more than any other handbook under consideration here. Two entire pages of the Preface, under the clever heading of "Looking at Writing in a New Way," reinforce this focus and claim and unequivocally assert that "*The Penguin Handbook* presents writing visually" (Faigley, 2007, p. xvi). The Preface also informs readers that "*The Penguin Handbook* aims to present information in ways that are visually accessible for today's students" (Faigley, 2007, p. xviii).

The stated goal of *The Simon & Schuster Handbook (SSH)* is succinct yet general: "to put ideas into words worthy of someone else's reading time" (Troyka & Hesse, 2007, p. i). The word "comprehensive" appears several times and in several contexts in the front matter of the handbook, offering itself to instructors as "a comprehensive handbook" (AIE-iv) and promising to

students “comprehensive access to the information you need about the writing process” (Troyka & Hesse, 2007, p. iv). Addressing more specific aspects of writing instruction, the Preface also claims to offer “comprehensive coverage of argument” (Troyka & Hesse, 2007, p. v), and “extensive coverage of Writing Across the Curriculum” (Troyka & Hesse, 2007, p. vii). These notions of “comprehensive” and “extensive,” as well as the overwhelmingly lengthy “Overview of Contents,” might lead one to believe the coverage in the handbook to be broad and superficial. However, *SS* provides much thoughtful and detailed attention to technology throughout its 934 full-sized pages.

The Harbrace Handbook (HH) also explicitly publishes its theoretical framework: “*Hodges’ Harbrace Handbook*, Sixteenth Edition, applies the rhetorical situation to all discussions of writing, grammar, punctuation, and mechanics” (Glenn & Gray, 2007, p. 2). Likewise, HH claims that it “guides student writers in developing their understanding of the rhetorical situation” and that it is “situated around rhetorical concerns” (Glenn & Gray, 2007, p. 1). The Preface introduces changes made to this 16th edition, including “rhetorical principles now underpin the entire book, and the purposeful use of visuals is emphasized throughout,” claiming that visuals “are ubiquitous in contemporary culture” (Glenn & Gray, 2007, p. xix). The minimal coverage of technology in the HH may be attributed to this emphatic focus on rhetorical principles, though as demonstrated in *Penguin*, the two are by no means mutually exclusive.

Similarly, *The St. Martin's Handbook (SMH)* uses "a rhetorical perspective" in addressing various issues of writing (Lunsford, 2008, p. v) and announces that the 6th edition has been "made more visual" (Lunsford, 2008, p. vii). Lunsford shares that, even as she adds new content to this 6th edition, she has "been careful not to lose sight of the mission of any handbook: to be an accessible reference to students and instructors alike" (2008, p. v). She hopes also that this textbook "will help them [students] make appropriate and grammatical choices" (Lunsford, 2008, p. vii). In "A Note to Students," the *SMH* signals the intention of the textbook "to help you become a competent and compelling writer – both throughout and beyond your college years" (Lunsford, 2008, p. xxi).

Hacker's text *(AWR)* immediately informs its readers of its decisive purpose: "*A Writer's Reference* is designed to save you time" (2007, p. vii). In the Preface for Instructors, the text claims to "make it easier for students to find the information they need as quickly as possible" (Hacker, 2007, p. xviii). Instructors are also assured that the electronic ancillaries accompanying the handbook are "as easy to use as the book itself" (Hacker, 2007, p. xx). Ironically, this emphasis on ease and speed of use may account for the scarcity of discussion regarding technology. The emphasis on efficiency, demonstrated through "ease of use," "easier," and "quickly," parallels what some view as one of the most appealing qualities of technology in general.

Decreased Explicit Emphasis on Technology

The earlier, 15th edition of *HH* advertises the integration of computer technology much more vigorously than the current, 16th edition. The Preface to the 15th edition, which lists features new to the edition, describes the inclusion of "Computer Boxes," graphic devices identified in the text by an icon resembling a computer's mouse and highlighted in the text by a different colored background. These "Computer boxes" are designed to "support students' facility in all kinds of electronic writing" and to "provide useful information about working with electronic media" (Glenn et al, 2004, p. xxv). The description of these "Computer Boxes" concludes with the assurance that "the use of technology in writing is integrated throughout the handbook" (Glenn et al, 2004, p. xxv).

The 15th edition contains 32 of these "Computer Boxes," while the 16th edition contains fewer than half that number: 13. The 16th edition does not address these "Computer Boxes" anywhere in the Preface. While the "Computer Boxes" are no longer "new" in the 16th edition, the Preface to the 16th edition does include a section entitled "Instructive Visuals That Emphasize Key Components." And while the "Computer Boxes" in the 16th edition continue to be identified by the computer mouse icon and a different colored background, presumably for emphasis, no mention of the "Computer Boxes" nor any reference to technology exists anywhere in the front matter.

Similarly, the Preface to 15th edition of the Harbrace introduces "Beyond the Rule Boxes," which are designed to

> enrich students' understanding of the rules and conventions that substantiate the effectiveness of their rhetorical choices. The boxes link directly to our new Web site, www.harbrace.com, and provide additional information on the quirks of grammar, punctuation and mechanics, rules, and conventions. These boxes also suggest alternative rhetorical choices for writing. (Glenn et al, 2004, p. xxv)

As with the "Computer Boxes," these "Beyond the Rules Boxes" are readily identifiable in the text by the use of a different color background with a graphic design bar at the top, which includes the heading "Beyond the Rule."

The 15th edition includes 56 of these "Beyond the Rule" boxes, while the 16th edition includes only 6. The use of the ancillary technology through self-referential directives to the accompanying website is reduced in the 16th edition by over 90%.

This trend in reducing the prominence of technology continues in Faigley's *The Penguin Handbook*. In the 1st edition, an entire page of the Preface advertises the text as "A Reference for Using Computers" and asserts that the text overall "provides help on any issue one is likely to encounter when writing with computers in today's academic environment and beyond" (Faigley, 2005, p. viii). This same page in the Preface introduces "Computer Strategies" boxes, which "give suggestions for working effectively on the computer while writing, revising, editing, and conducting research on the web" (Faigley, 2005, p. viii). As with the *HH*, this page in the Preface of

the *Penguin* concludes by stating that it provides “comprehensive coverage of technology throughout” (Faigley, 2005, p. viii).

The number of “Computer Strategies” boxes in the 1st edition totals 19, while in the 2nd edition, the “Computer Strategies” boxes disappear entirely. The 2nd edition does devote one page in the Preface to “Researching and Writing with Technology,” but instead of approaching “comprehensive coverage of technology throughout,” this page refers only to database searches and documentation of electronic sources. The structure of sections and the number of chapters devoted to researching with and documenting electronic sources does not change between the 1st and 2nd editions of the *Penguin*. Both include a section on “Researching,” which consists of five chapters, and a section on “Documenting,” which also consists of five chapters. The number of pages in each section does increase in the 2nd edition, with an additional 8 pages in the “Researching” section and an additional 53 pages in the “Documenting” section. However, the formatting of the “Documenting” section in the 2nd edition requires increased space because of extensive revisions made to the visual presentation of the information.

Of the 19 “Computer Strategies” boxes included in the 1st edition, 10 of them are transformed into “Writing Smart” boxes in the 2nd edition. In neither the 1st nor the 2nd editions are these “Writing Smart” boxes described or explained. The information contained in seven of the “Computer Strategies” boxes from the 1st edition is ellipted completely, while the content of two of the

"Computer Strategies" boxes is integrated into the body of the textbook without any visual emphasis.

The 1st edition of *Penguin* also supplies a "Glossary of Computer Terms," which is removed from the 2nd edition. Likewise, the 1st edition contains three chapters in a section entitled "Writing for the Web: Web Basics," "Steps in Creating a Web Site," and "Building a Multipage Site." In the 2nd edition, the three individual chapters on creating a website are removed, and "Writing for the Web" is reduced from a section heading to a chapter title.

Section headings are also renamed between editions, signaling a shift in emphasis regarding technology. In the 1st edition, "Part 1" is entitled "Composing in the Digital Era;" in the 2nd edition, this same section is entitled "Composing in a Visual Era." The substitution of "visual" for "digital" locates the focus of this 2nd edition more precisely, and the substitution of the definite article "the" for the indefinite article "a" seems to soften the implied impact of technology on the content of the text.

Likewise, *The St. Martin's Handbook* minimizes the number of explicit references to technology in the revisions to the 5th edition, which result in the 6th edition. The 5th edition includes two glossaries, one of which is entitled "Glossary of Grammatical and Computer Terms" (Lunsford, 2003, p. 969). Examples of entries in this glossary include "domain name," "Rich Text Format (RTF)," and "listserv." In the 6th edition, the title of the glossary is reduced to simply, "Glossary of Terms" (Lunsford, 2008, p. 921) and is

described as just that in the Preface: “the Glossary of Terms defines grammatical and writing-related terms” (Lunsford, 2008, p. xxii), obviously reducing the prominence of the technology component. All three of the examples of entries from the 5th given above are excised from the 6th edition. In fact, the 6th edition “Glossary of Terms” includes only three computer terms: “Boolean operator,” “font,” and “keyword.”

The 5th edition of *SMH* also includes in its back-matter an “Online Writing and Research Directory” (Lunsford, 2003, p. I-40 & I-41). This directory lists in order all of the sections of the text in which a “computer icon” appears. Oddly, these computer icons are not explained anywhere in the front-matter, even though seventy-three of them are included in the text. A student, and perhaps even the instructor, might go through the text, encounter these “computer icons,” and not understand what they mean or why they’re included, unless the student or instructor thoroughly examined the last two pages of the Index. The text briefly explains the presence of these computer icons: “To find answers to questions about working online, look for computer icons in the margins of the Handbook. This advice appears on the pages noted below” (Lunsford, 2003, p. I-40).

In the 6th edition, this additional index disappears completely, as do the computer icons themselves, as well as any distinct considerations of working online.

The number of cross-references to the companion Web site in the 6th edition also decreases. In the 5th edition, the number of web links totals 124,

and the 5th edition announces that the companion Web site is new to this edition. The Preface to the 5th edition explains these "Links to the new Web site throughout the book":

> Links to the *St. Martin's Handbook* companion Web site supplement and expand the *Handbook's* coverage. The Web links in the margins take students to practical online resources – from tutorials on avoiding plagiarism to additional grammar exercises, model papers, a writer's almanac, and links to additional sources on the Web. (Lunsford, 2003, p. iv)

The 6th edition contains approximately half the number of these links from the 5th edition: 68. Interestingly, the "Note to Students" in the 6th edition advertises these links as appearing "in every chapter to direct you to online resources" (Lunsford, 2008, p. xxii); this claim is patently false (see Appendix C).

The only text from among those being examined in this study that does not follow this trend is *A Writer's Reference*. The number of "On the Web" links actually increases from 100 in the 5th edition to 115 in the 6th edition. Likewise, the number of "Grammar Checker" boxes increases from 40 in the 5th edition to 46 in the 6th edition.

However, the icons that accompany these boxes in each of the editions change. In the 5th edition, the icon that appears at the upper-left corner of these "Grammar Checker" boxes is a computer keyboard and monitor. In the 6th edition, the computer icon is transformed into a simple check mark.

The earlier (7th) edition of The Simon & Schuster Handbook was unavailable for review.

Expanded Definition of "Text"

As many contemporary scholars note, the definition of the word "text" has exploded and now includes images, graphics, sounds, and animation. With multimedia entering the mainstream and new forms of rhetoric being developed (i.e., visual rhetoric), one might reasonably expect these issues to be incorporated into the textbooks of the field.

Various forms of personal-computer technology allow for and facilitate the easy incorporation of different media into what was previously the domain of text only. With the click of a mouse button, photographs can be pasted into a document or text can be animated to move around the computer screen. These multimedia options are especially attractive to students, both as receivers and producers of "texts." Each of the handbooks in this study specifically addresses the technology that makes these multimedia options so accessible.

The Simon & Schuster Handbook, despite its length and overwhelming Table of Contents, surprised me by using the most progressive vocabulary in addressing the definition of "text: "Many texts – from Web pages to advertisements, posters, brochures, and so on – are **multimodal** in that they combine words and images" [**emphasis mine**] (Troyka & Hesse, 2007, p. 175). Not one of the other handbooks expressed the recently broadened definition of text using the jargon of the scholarship in the field. Elsewhere,

The SS Handbook refers to composing documents that “blend words with photographs and images” (Troyka & Hesse, 2007, p. 2). Much later in the text, in a chapter focusing on “Document and Visual Design,” *SSH* expands on this same concept, noting that “visual design involves words as well as images and, more important, the relationship between the two” (Troyka & Hesse, p. 771). Substituting “document” for what I am calling “text,” *SSH* explains that the term “document” is used to “refer broadly to all kinds of texts, including papers, reports, letters, brochures, flyers, posters, PowerPoint slides, and Web pages” (Troyka & Hesse, 2007, p. 771).

The SS Handbook also offers interesting advice to students regarding the incorporation of multimedia into their documents: “Always check with instructors before integrating audiovisual elements into your writing. And don’t worry if your knowledge about producing any of these types of writing is limited. Instructors who require such projects can tell you how to proceed” (Troyka & Hesse, 2007, p. 27). This bit of encouragement to the students necessarily implicates the instructor. If the instructor does not require the use of audiovisual elements, does this mean the instructor does not know how to proceed? This seems to be the implication, though it is unlikely that instructors would require students to perform a communication act that the instructors themselves cannot.

This statement also requires the instructor to be familiar and facile with multimedia applications, prompting the practitioners in the field to lead the charge toward and into unfamiliar territory (functional technological literacy).

We must know the technology first, before requiring our students to know the technology. Similarly, this statement makes the instructor responsible for teaching functional technological literacy – computer skills – to the students. *The SS Handbook* makes no mention of student discussions of the technology or of the implications of incorporating multimedia into a document, thereby obviating any issues of critical technological issue. Using the technology to incorporate sounds, images, or graphics seems just another skill that the instructor can impart to the students.

In *The Penguin Handbook*, Faigley explains that "new technologies have blurred the line between oral and written presentations" (2005, p. 231). Oral presentations often include visual aids of some sort, so in a round-about way, Faigley includes images and graphics in his explanation. He explains further the merging of word and image:

> Knowing when to use images and graphics and when to use words requires you to think about them as media…The word 'writing' makes us think of words, yet in our daily experience reading newspapers, magazines, advertisements, posters, and signs, we find words combined with images and graphics. Similarly, the dominant visual medium of our time, television, uses words extensively (think of the words you see on commercials . . . and the running text across the bottom of the screen on news, sports, and financial programs). (2005, p. 23)

This rather lengthy but illustrative explanation asks students to relate their everyday experiences to the work in their writing classes, demonstrating the pervasive use of multimedia in daily life. As readers and receivers, students are experienced with the uses of multimedia; now as writers, the students are being asked to produce ‘documents’ using the same multimedia they are exposed to daily. Illustrating the link between student reception and production of multimedia presentations requires students to engage with larger issues of technology, though not very critically.

The *SMH* addresses this issue directly:

> “How can a picture be a text?” In its traditional sense, a *text* involves printed words on paper. But in our media-saturated age, we spend at least as much time reading and analyzing images – including moving images – as we spend on printed words. So it makes sense to broaden the definition of *text* to refer to almost anything that sends a message. That’s why images are often called *visual texts*. (Lunsford, 2008, p. 173)

The following page of the *SMH* offers a bulleted list of questions for students to consider when they are “analyzing visual images” (Lunsford, 2008, p. 174).

In reference to research, *The St. Martin’s Handbook* admits that “the once-clear distinction between print and electronic sources [grows] increasingly blurred” (Lunsford, 2008, p. viii). Further, this text states, “Writing in this century often includes much more than words; visual images, graphics, and sound can create and carry an important part of the message” (Lunsford,

2008, p. 23). This assessment is echoed on the following page, in one item among a bulleted list of “key points” that writers today should remember: “Writing is visual as well as verbal; design elements are key to the success of many documents” (Lunsford, 2008, p. 24).

In Chapter 4, entitled “Visual Thinking,” a brief side-bar informs readers that “Today, we live in a world of words *and* visuals” (Lunsford, 2008, p. 49). Ironically, this first page of Chapter 4 contains no visuals whatsoever; the page is completely filled in with text only. The statement reappears almost verbatim just two pages later: “Readers and writers today are usually dealing with information presented in both words and visuals” (Lunsford, 2008, p. 51).

In referring to online communications, *SMH* extends this blurring to “the roles of ‘writer,’ ‘reader,’ and ‘text,’” explaining that these roles are “often interchangeable, as readers become writers and then readers again, and texts constantly change as multiple voices contribute to them” (Lunsford, 2008, p. 139). In a nod to social constructivism and by using the example of an email accumulating responses as it moves through different receivers, *SMH* describes this “extended message . . . as a portrait of how meaning is made collaboratively” (Lunsford, 2008, p. 139).

The blurring of distinctions between image and text extends to a blurring of virtual and hard-copy text. Several of the handbooks consider web-based text and printed text as the same thing. Hacker’s *AWR*, in addressing internet plagiarism, suggest that students “Treat web sources in the same way you treat print sources” (Hacker, 2007, p. p. 347). Similarly, *AWR*

conflates the rules for MLA documentation, stating that “the basic rules are the same for both print and electronic sources” (Hacker, 2007, p. 371).

In its introduction, *The St. Martin’s Handbook* claims to show students “how writing in electronic and multimedia environments does (and doesn’t) differ from writing for traditional print genres” (Lunsford, 2008, p. viii).

Visual Elements

The findings reported in this section relate to the textbook treatment of visual images and graphics in the context of writing instruction. Each of the handbooks under examination teaches students the basic principles of visual rhetoric with regard to the incorporation of images and graphics into text-based documents. These principles center around the technology that makes such multimedia presentations possible.

As Theorized

As the self-proclaimed leader in teaching visual rhetoric, *The Penguin Handbook* asserts that “Writers today communicate visually as well as verbally. Computers and digital media give writers the ability to use pictures and graphics in addition to text” (Faigley, 2005, p. 6). The *SMH* uses the term “visual literacy” and references Stephens book by title, *The rise of the image, the fall of the word*. The *SMH* paraphrases Stephens, stating that “visual images now shape or even control our lives at least as much as words do, perhaps even more” (Lunsford, 2008, p. 168).

Each of these two texts devotes an entire chapter to visual rhetoric. Chapter Four of the *SMH* is entitled, “Visual Thinking,” while Chapter Two of

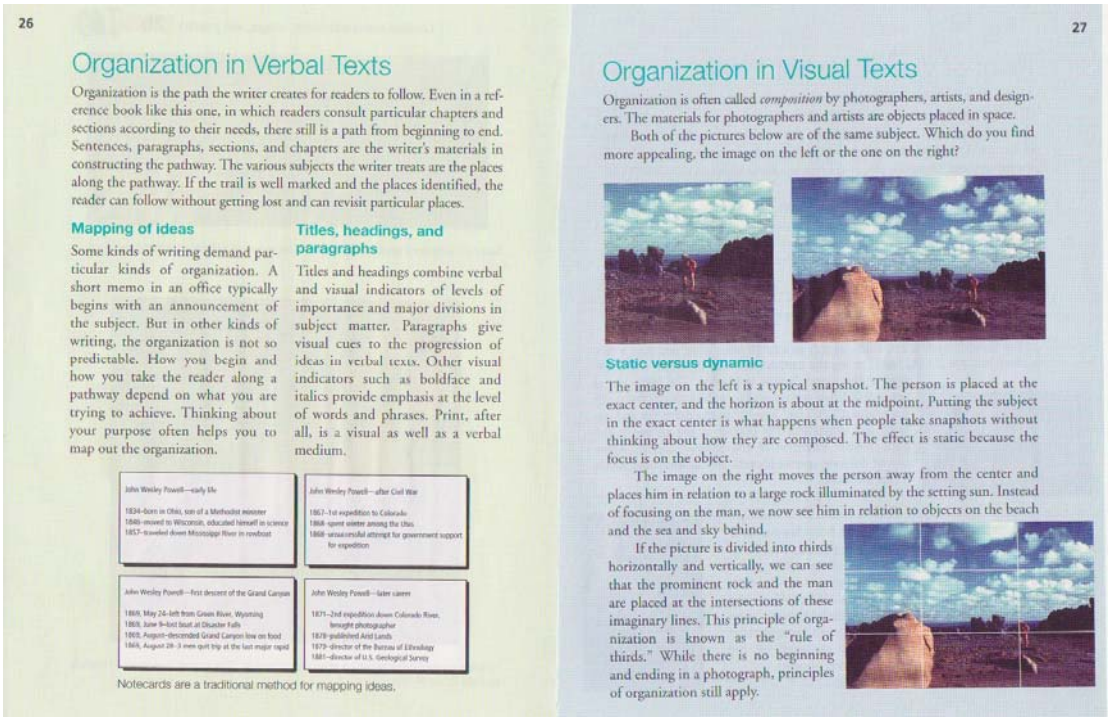
PH is entitled “Words, Images, and Graphics.” The *SSH* also includes a chapter entitled, “Critically Analyzing Images and Using Them.” In advertising the new features of the sixth edition, the preface to Hacker’s *AWR* promises “guidelines for writing about verbal and visual texts.” However, visual analysis is not separate and distinct from verbal analysis; in a page-long bulleted list of “Guidelines for active reading,” visual concerns are included almost as an after-thought, comprising the final five items from a list of 17 “critical thinking strategies.” The *HH* barely addresses visual rhetoric at all, affording just over three pages (of 793 total) to aesthetic concerns of online documents.

The second chapter of *PH* offers several, side-by-side comparisons of verbal versus visual representation. The first example addresses explanation, giving approximately one paragraph of prose describing a geographical feature (Faigley, 2005, p. 23) and then reprinting four visuals of the same geographical feature: a drawing, a photograph, an aerial photograph, and a satellite image (Faigley, 2005, p. 24-25). Similarly, on facing pages, *PH* explores “Organization in Verbal Texts” (Faigley, 2005, p. 26) alongside “Organization in Visual Texts” (Faigley, 2005, p. 27), as shown in Figure 4. While the same topic (i.e., organization) is covered in both *HH* and *SSH*, neither makes any reference to visual considerations.

Other topics covered in the same way in *PH* include “Point of View” (Faigley, 2005, p. 28-29), “Focus and Frame” (Faigley, 2005, p. 30-31), and “Interest” (Faigley, 2005, p. 32-33). The parallels and differences become more concrete through these examples, though the idea itself is not

particularly innovative. “A picture is worth a thousand words” is considered a cliché precisely because the phrase is old, tired, and worn-out.

Faigley adopts this same technique for exploring the “strategies for



26

Organization in Verbal Texts

Organization is the path the writer creates for readers to follow. Even in a reference book like this one, in which readers consult particular chapters and sections according to their needs, there still is a path from beginning to end. Sentences, paragraphs, sections, and chapters are the writer's materials in constructing the pathway. The various subjects the writer treats are the places along the pathway. If the trail is well marked and the places identified, the reader can follow without getting lost and can revisit particular places.

Mapping of ideas

Some kinds of writing demand particular kinds of organization. A short memo in an office typically begins with an announcement of the subject. But in other kinds of writing, the organization is not so predictable. How you begin and how you take the reader along a pathway depend on what you are trying to achieve. Thinking about your purpose often helps you to map out the organization.

Titles, headings, and paragraphs

Titles and headings combine verbal and visual indicators of levels of importance and major divisions in subject matter. Paragraphs give visual cues to the progression of ideas in verbal texts. Other visual indicators such as boldface and italics provide emphasis at the level of words and phrases. Print, after all, is a visual as well as a verbal medium.

Notecards are a traditional method for mapping ideas.

27

Organization in Visual Texts

Organization is often called *composition* by photographers, artists, and designers. The materials for photographers and artists are objects placed in space.

Both of the pictures below are of the same subject. Which do you find more appealing, the image on the left or the one on the right?

Static versus dynamic

The image on the left is a typical snapshot. The person is placed at the exact center, and the horizon is about at the midpoint. Putting the subject in the exact center is what happens when people take snapshots without thinking about how they are composed. The effect is static because the focus is on the object.

The image on the right moves the person away from the center and places him in relation to a large rock illuminated by the setting sun. Instead of focusing on the man, we now see him in relation to objects on the beach and the sea and sky behind.

If the picture is divided into thirds horizontally and vertically, we can see that the prominent rock and the man are placed at the intersections of these imaginary lines. This principle of organization is known as the “rule of thirds.” While there is no beginning and ending in a photograph, principles of organization still apply.

Figure 4. Pages from Penguin Handbook.

effectively organizing sentences within a paragraph” (Faigley, 2005, p. 67) (i.e., the modes of exposition): description, narration, comparison and contrast, definition, examples, cause and effect, and classification/division. Examples of each “strategy” fill one entire page, the top half of which is text and the bottom half of which is visual (Faigley, 2005, p. 68-74). All the visuals used in this particular section are photographs.

The *SMH* likewise addresses the rhetorical modes in a chapter coaching students on “Developing Paragraphs,” with visuals accompanying five of the ten modes listed (Lunsford, 2008, p. 117). The *SSH* includes the same ten modes as the *SMH* but visuals accompany only two of the modes

(process and analysis) (Lunsford, 2008, p. 108). The *HH* lists and describes seven modes total; three photographs are used as examples but there is no discussion of visual principles (Glenn & Gray, 2007, p. 409).

Chapter Six of *PH*, entitled "Critical Reading and Viewing," similarly contrasts the verbal and the visual. Section 6b is entitled "Critical Reading" (Faigley, 2005, p. 105), while section 6d is entitled "Critical Viewing" (Faigley, 2005, p. 110). Section 6c addresses "Verbal Fallacies" (Faigley, 2005, p. 108), while section 6e addresses "Visual Fallacies" (Faigley, 2005, p. 113). While the *HH* devotes seven pages to explaining logical fallacies, there is no mention of any visual components. Conversely, The *SMH* devotes an entirely separate section in Chapter 9, entitled "Analyzing Arguments," to visual fallacies. Fallacies are grouped according to type: ethical fallacies, emotional fallacies, logical fallacies, and visual fallacies. Under this heading of "visual fallacies," the text claims that many believe we are living "in the age of the image" and that "the sheer power of images can make them especially difficult to analyze" (Lunsford, 2008, p. 159). Chapter 4 of the *SSH* – "Thinking, Reading, and Writing Critically" – covers 16 fallacies but never mentions the visual aspect (Troyka & Hesse, 2007, p. 144-147), nor is there any discussion whatsoever of the visual component anywhere in the chapter.

Chapter Seven of *TPH* continues to juxtapose verbal and visual considerations. Section 7b discusses how to "Analyze the Context and the Text" (Faigley, 2005, p. 118), while Section 7e offers advice on how to "Analyze Images and Other Kinds of Visual Texts" (Faigley, 2005, p. 129). Yet

again, in Chapter 28, the visual and the verbal are examined simultaneously in the context of “Writing with Emphasis” (Faigley, 2005, p. 535). Similarly, Hacker’s *AWR* supplies students with a list of “Guidelines for analyzing a text” (2007, p. 66); this list is roughly divided in half, with seven prompts addressing written text along with five prompts addressing visual texts. The St. Martin’s Handbook takes a different approach, listing “Visuals” separately in a list of considerations for revision/editing (Lunsford, 2008, p. 83) and again on page 97.

Chapter 11 of *SMH*, entitled “Constructing Arguments,” covers the three classic types of appeals used to sway an audience, comparing and contrasting the verbal and the visual in relation to each type of appeal. Coverage of “ethical appeals” is immediately followed by “visuals that make ethical appeals”; coverage of “logical appeals” is immediately followed by “visuals that make logical appeals,” and the same holds true for emotional appeals. *SMH* also includes an entire subsection for “Analyzing visual arguments” in Chapter 10. No such consideration of visual components appears in *SSH*, which, in Chapter 5, discusses all three types of appeals with no mention of using them in any visual context. Similarly, *HH*, with its rhetorical focus, explains all three types of appeals but does not incorporate any visual considerations. *PH* mentions all three types of appeals in a single sentence, while the *AWR* mentions only emotional appeals, with no reference to visual elements of argumentation.

The most straightforward use of visuals – tables and figures – is addressed by all five handbooks to varying degrees. *AWR* explains and illustrates eight different types, the *SMH* includes seven different types, *PH* and *HH* each mention five types of graphic, while *SS* covers four types.

As Practiced

Interestingly, the self-proclaimed leader in teaching visual rhetoric, *The Penguin Handbook*, is the only text to use meaningful visuals (i.e., photographs) on the cover of the textbook, as shown in Figure 5. The cover features six photographs relating to writing and literacy, two of which incorporate images of technology. One of the visuals involving technology shows a close-up photo of a computer keyboard, while the other shows a student typing on a laptop computer.

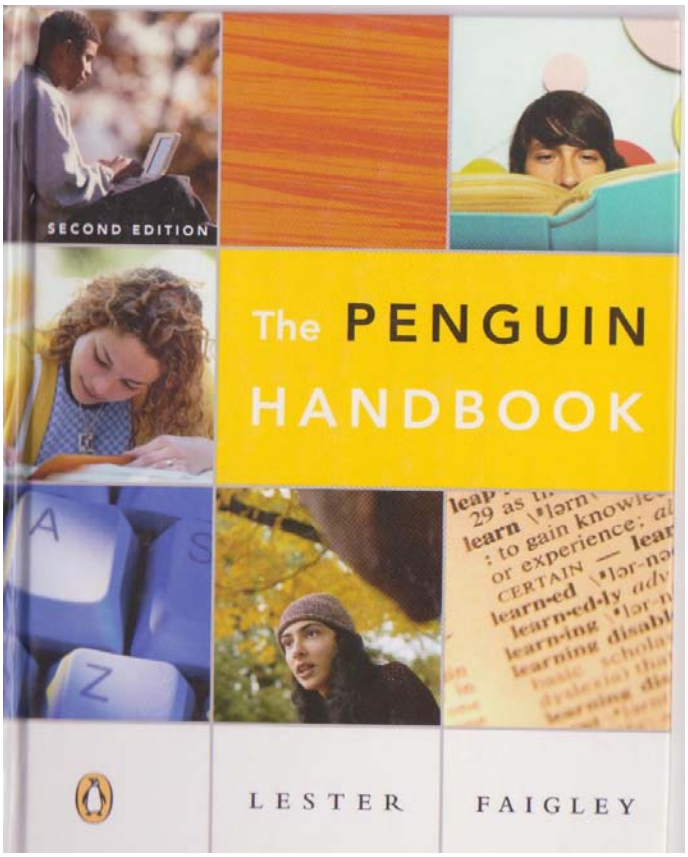


Figure 5. Cover of Penguin Handbook.

The Simon & Schuster Handbook also uses photography on the cover, but the image is of a yellow sportscar, as shown in Figure 6. The relevance of this photograph of a car escapes me. All of the remaining textbooks under examination resort to non-descript, abstract graphics, as shown in Figure 7, or none at all (*Harbrace*).

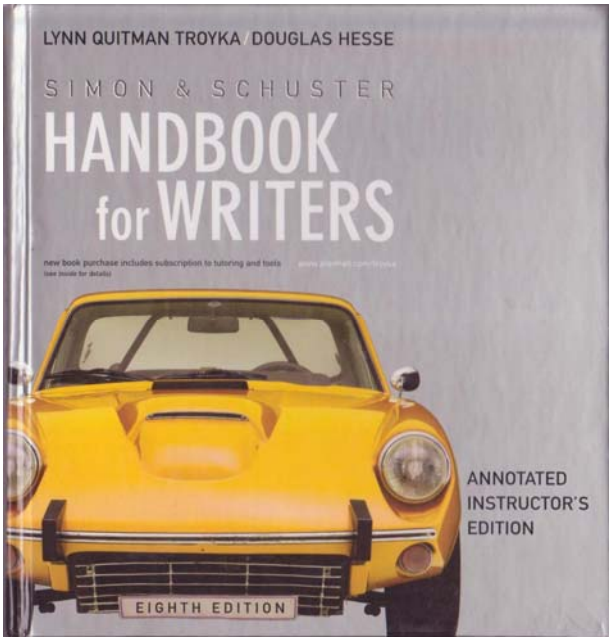


Figure 6. Cover of Simon & Schuster Handbook.

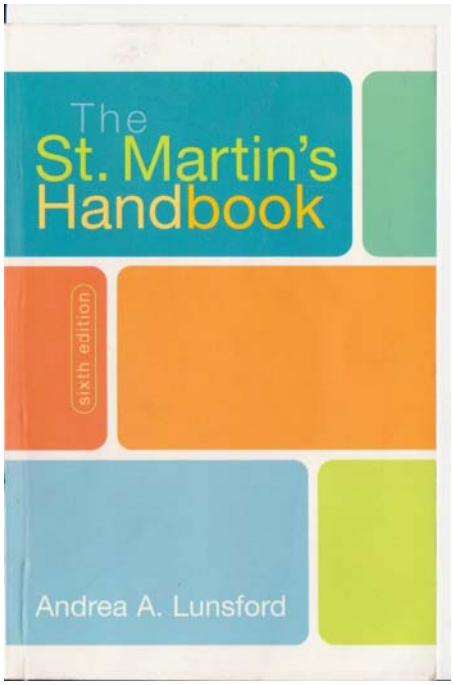


Figure 7. Cover of St. Martin's Handbook.

Technology in the Service of Rhetoric

Even with the burgeoning and specialization of Computers and Composition, rhetoric subsumes technology in each of the textbooks under

examination. In the introduction, and in relation to advances in writing technologies, the *SMH* asserts that “In a time of such challenging possibilities, taking a rhetorical perspective is particularly important” (Lunsford, 2008, p. v). Further into the text, this same emphasis is echoed: “Today’s expanded sense of writing challenges us to think very carefully about what the writing is for (its purpose) and whom it can and will reach (its audience)” (Lunsford, 2008, p. 23). In broader terms, The *PH* reiterates this same notion, stating, “While more of our communication in the digital era will take advantage of the multimedia capabilities of new technologies, these technologies will not replace the need for effective writing” (Faigley, 2005, p. 36).

Faigley continues to prioritize rhetorical considerations of purpose and audience in relation to planning a web site: “The process of creating a website is similar in many ways to other kinds of writing. Thinking about your audience and what you want to accomplish at the beginning will guide you in making decisions as you compose and revise” (Faigley, 2005, p. 242).

This same emphasis on purpose and audience with regard to technology and writing is evident in *AWR*: “Word processing programs offer abundant options for layout, margins and line spacing, alignment, and fonts. As you use these options to design documents, always keep the purpose of the document and the needs of your readers in mind” (Hacker, 2007, p. 38).

The *SMH* also places the use of visuals in a rhetorical context, suggesting that students pay “special attention to how well the text and visuals work together and fit the purpose of the writing and the intended

audience" (Lunsford, 2008, p. 53). In addition, the *SMH* contemplates the similarities and differences among various pieces of writing in various media:

> What do a magazine article on stem-cell research, a letter to Visa about an error on your bill, an email to your sister, a comment on a blog about global warming, and an engineering report ways to strengthen the New Orleans levees all have in common? To write successfully, the writers of all of these texts must analyze their particular rhetorical stance and then respond to it in appropriate ways. (Lunsford, 2008, p. 36)

Similarly, the *PH* summarizes, "In any medium, your goals, your subject, and your audience should shape your presentation" (Faigley, 2005, p. 231).

Referring specifically to email as a writing technology, the *SMH* explicitly relates that "email calls on you to consider your purpose and audience" (Lunsford, 2008, p. 404). Likewise, in a chapter entitled "E-Documents," the *HH* emphasizes learning "the basics of designing rhetorically effective documents" (Glenn & Gray, 2007, p. 147).

With regard to the design and use of visuals, *AWR* also encourages students to "choose carefully the visuals that support your main point" (Hacker, 2007, p. 43). The *SMH* gives similar advice to students: "You should consider, for example, how color, size, shape, texture, layout, sound and other design elements may affect the effectiveness of the argument" (Lunsford, 2008, p. 168-169).

In a chapter entitled “Document Design,” *SMH* concedes that visual rhetoric brings “a whole new dimension to writing” (Lunsford, 2008, p. 447). Furthermore, and ironically, in a discussion of the rhetorical canon of delivery, *SMH* states that “the electronic revolution has dramatically affected the delivery of information” (Lunsford, 2008, p. 447). The *SMH* then applies basic rhetorical principles to the construction of online texts, recommending that when “planning a web text”, students should begin by first considering “audience, purpose, topic, and stance” (Lunsford, 2008, p. 468). Even when addressing oral and multimedia presentations, the *SMH* devotes an entire subsection of a chapter to “assignment, audience, and purpose” (Lunsford, 2008, p. 484).

SS follows suit, stating that “Overall, the best design is always the one appropriate to the purpose and writing situation at hand” (Troyka & Hesse, 2007, p. 771). Again, with its rhetorical focus, *HH* directs students to “consider document design in terms of rhetorical purpose” and similarly to “manage visual elements in terms of rhetorical purpose” (Glenn & Gray, 2007, p. 147). Further into the text, *HH* explains, “All the design elements of an online document, like the tone and style of a printed one, are rhetorical tools that help you achieve your purpose and reach your intended audience” (Glenn & Gray, 2007, p. 167).

In evaluating the effectiveness of visuals in a presentation, the *SMH* advises students that the visuals must “fit the purpose of the writing and the intended audience” (Lunsford, 2008, p. 53). As Faigley points out in *The*

Penguin Handbook, “The problem today is not whether you can add images and graphics but when to add them and for what effects” (2005, p. 22). Delving even further into traditional rhetorical principles, Faigley asserts that “In the digital era how you choose to incorporate visual elements in your communications contributes a great deal to the construction of your ethos as a writer” (2005, p. 34).

“Information is Power”

Even as he concedes the “complexity of writing in a digital era,” Faigley, in *The Penguin Handbook*, asserts that “people who can write effectively are far more *successful* in their professional and civic lives than those who can’t” [*emphasis mine*] (Faigley, 2005, p. 5). On the next page of the textbook, Faigley affirms this belief, stating that “Knowing how to communicate visually is important to your *success* in the digital era” [*emphasis mine*] (Faigley, 2005, p. 6). Even earlier, students read that “success” results from good writing: “If you write well, you will become more confident and *successful* in whatever you do” [*emphasis mine*] (Faigley, 2005, p. 2).

Immediately following this last sentence in the first paragraph of the Introduction, students are informed that “digital technologies have profoundly changed what it means to write well” (Faigley, 2005, p. 2). Faigley then continues, extolling the virtues of the “personal computer” and the “powerful software” that apparently transform writing altogether (2005, p. 2). The redefining of “good writing,” along with the juxtaposition of “good writing” and

“digital technologies,” leads to the inevitable conclusion that good writing = digital technologies = success.

In Chapter 17, entitled “Finding Sources Online,” this same theme continues: “The keys to *success* are knowing where you are most likely to find current and accurate information about the particular question you are researching and knowing how to access that information” [*emphasis mine*] (296). The most powerful statement of this belief, and the title for this section of Chapter IV, also comes from *TPH*: “Information – and knowing how to find it – is power in the digital era” (Faigley 2005, p. 287).

The *SMH* examines the personal computer and explicates “the metaphor of word processing”:

> We use computers literally to process our words, organizing and formatting them in various ways, playing around with organization and stylistic choices. This active role we ascribe to computers is one reason many writers think of their word-processing programs as good friends that help them. (Lunsford, 2008, p. 163)

In the same section of the handbook, *SMH* suggests that “several word-processing tools may help you improve the quality of your writing” (Lunsford, 2008, p. 167). Even earlier in the text, students are prompted to “consider word processing *all* your work . . . Doing so can save you time and effort in the long run” (Lunsford, 2008, p. 62).

The SS Handbook offers a more utilitarian perspective on the use of technology, focusing on the “ease” with which writing is produced using

computers. Very early in the textbook, students are informed that “computers have . . . made it easier to produce clean texts” (Troyka & Hesse, 2007, p. 2). In terms of publication, as opposed to production, the textbook asserts that “the Internet and devices such as cell phones and personal data assistants have made it easier for people to share writing” (Troyka & Hesse, 2007, p. 2). Indeed, but there is no accompanying discussion about deciding what to share, when to share, or why to share.

Continuing with a utilitarian view of technology, The *SSH* informs students, “Almost all writing projects, whether in college or in the workplace, require computers,” and that “the clear preference is for word-processed final drafts” (Troyka & Hesse, 2007, p. 19). The textbook also admits that those who own a computer do “enjoy some obvious conveniences” (Troyka & Hesse, 2007, p. 19).

Cautions about Technology

Several handbooks explicitly caution their audiences against a broad range of technological misuses. This cautionary tone extends beyond visual and word processing to include other popular technologies, such as presentation software, online research, and Grammar Check. These technologies are often incorporated into composition classrooms and are therefore issues worthy of further examination.

Again, with its focus on the visual component of communication, *The Penguin Handbook* admonishes students that “the major drawback of presentation software is perhaps that it is too easy to use” (Faigley, 2005, p.

237). Faigley elaborates on this notion, reinforcing substance over style: “An attractive presentation can be empty in content” (2005, p. 237).

TPH offers a similar caution about conducting research online: “The Internet makes it easy to find many sources in a hurry – often too many” (Faigley, 2005, p. 301). Obviously, the emphasis here is on quality versus quantity, but no such discussion accompanies this section. Matters of evaluating sources are relegated to the following chapter.

PH critiques the reliability of Web sites, stating that they “can be put up and changed quickly, so information can be – and often is – posted thoughtlessly” (Faigley, 2005, p. 308). So too does Hacker’s *A Writer’s Reference* issue a warning that “web sources can be deceptive” (2007, p. 341). In the chapter entitled “Managing Information,” AWR offers the admonition above and on the facing page (Hacker, 2007, p. 340) offers a lengthy and detailed bulleted list of precautions regarding “Evaluating Web sources.” This list is distinguished from the rest of the text by color; the entire box is highlighted in a different color, while the title and bullets are yet another, infrequently used color. This list is also separate from a list on the previous page (Hacker, 2007, p. 339) that lists suggestions for “Evaluating all sources.” Hacker separates the discussion of Web sources from a discussion of sources in general, emphasized by the separate and focused attention the element of online research is given. The amount of text in the graphic box that surrounds “Evaluating Web sources” is roughly twice as large as the amount of text in the graphic box that surrounds “Evaluating all sources.”

In total, the number of “Grammar Checker” boxes in the 6th edition of *AWR* totals 46. Of those 46 “Grammar Checker” boxes, only four do not explicitly and adamantly highlight the fallibility of such technology. The four boxes that do not straightforwardly condemn certain features of grammar checker offer only a lukewarm and half-hearted

In terms of revising and editing, *The Simon & Schuster Handbook* recommends caution when working with word processing programs:

> Beware of two temptations when writing with the computer. Because you can rearrange and otherwise revise endlessly, you may need to set limits, or you’ll never finish the assignment. The opposite seduction is also possible: A neatly printed page may look like a final draft, but it definitely isn’t one. (Troyka & Hesse, 2007, p. 58)

Similarly, *SSH* addresses editing “tools” of word processing, including spell-checker, grammar-checker, thesaurus, etc., stating that “each tool has its shortcomings serious enough to create new errors” (Troyka & Hesse, 2007, p. 63). This advice appears again much later in the text, referring specifically to the thesaurus function of word processors; it appears in a section highlighted by the word “ALERT” and an unidentifiable graphic (Troyka & Hesse, 2007, p. 379).

The spell check function of word processing programs comes under particular scrutiny. *PH* devotes an entire chapter to spelling, the first subsection of which is entitled, “Know the Limitations of Spelling Checkers” (Faigley, 2005, p. 761). The *SMH* also admonishes the student that “running

the spell checker, while necessary, is *not* the equivalent of thorough proofreading" (Lunsford, 2008, p. 105). With a slightly different focus but with similar caution, *SSH* warns, "Most word processing programs include a thesaurus. But be cautious when using it" (Troyka & Hesse, 2007, p. 379).

In relation to internet technology, *TPH* recognizes that, "Because anyone can publish on the Web, there is no overall quality control and there is no system of organization" (Faigley, 2005, p. 295). Further in the text, *TPH* addresses internet plagiarism in particular, asserting, "The Internet has likely increased instances of plagiarism in college. . . . It's also easy to use the Internet to trace sources stolen off the Internet" (Faigley, 2005, p. 324). In a separate, graphically highlighted section of a chapter on "Managing Information," *AWR* also addresses internet plagiarism, offering four brief paragraphs of advice meant to safeguard students. Almost identically, the *SSH* offers four bulleted points in a separate graphically-highlighted section under the heading "Guidelines for avoiding plagiarizing online source" (Hacker, 2007, p. 543). The *HH* offers this insight regarding internet plagiarism: "Although it is fairly easy to copy material from a Web site or even to purchase a paper on the Web, it is just as easy for a teacher or employer to locate that same material and determine that it has been plagiarized" (Glenn & Gray, 2007, p. 547).

Supplement to Writing

All of the handbooks under examination in this study express an attitude of technology as a supplement to – not a substitute for – the

fundamentals of good writing. The technology itself and the various uses to which it is put are simply arranged alongside already-established theories and pedagogies. While some scholars call for a radical rethinking of rhetoric in the digital age, none of the textbooks offered any such revolutionary vision. In these textbooks, technology is viewed as ancillary rather than primary.

The Penguin Handbook relates that "as the technical barriers have been lowered, the expectations for high-quality content have been raised. Just as for paper, people respect well-organized and well-written content on the Web" (faigley, 2005, p. 242). The focus in this passage is on "content" rather than technology itself. Similarly, Faigley explains that "the new literacies made possible by digital technologies haven't replaced the old literacies of pencil, pen, printing press, and paper. New technologies have simply added more choices, raising the ante for being an effective communicator in the digital era" (2005, p. 2). *TPH* explicitly recognizes technology as "simply" additive.

Likewise, *TPH* states that "While more of our communication in the digital era will take advantage of the multimedia capabilities of new technologies, these technologies will not replace the need for effective writing" (Faigley, 2005, p. 36). Some scholars may argue about what is considered "effective writing," again calling for a revision of all the canons of rhetoric in light of these "multimedia capabilities."

In a general analogy, *TPH* recognizes that "Writers today use a variety of writing technologies. People do not throw away their pencils and ballpoint

pens when they buy a laptop computer." Speaking to the material bases for a variety of writing technologies, *TPH* implies that technology is again additive, though perhaps more advanced.

A Writer's Reference repeats this notion in referring to visual aids: "Use visuals to supplement your writing, not to substitute for it" (Hacker, 2007, p. 43). Almost verbatim, *SMH* echoes this notion, stating (Lunsford, 2008, p. 479) "visuals add to but do not substitute for text." However, the *SMH* contradicts itself in this regard. Under the subheading "Using Visuals," the text suggests that readers "Think of [visuals] not as add-ons but as a major means of conveying information" (Lunsford, 2008, p. 490).

Relating electronic text to print text, *SSH* highlights the commutative properties of both, reinforcing the notion that neither is dependent (or added onto) the other: "You can view images critically the same way that you can read texts critically" (Troyka & Hesse, 2007, p. 171). Later in the same text, this equivalency, in this case relating to documentation styles, affirms the supplemental nature of online sources to traditional print sources: "The principles that govern in-text parenthetical citations of electronic sources are exactly the same as the ones that apply to books, articles, or other sources" (Troyka & Hesse, 2007, p. 571). Finally, this equivalency extends to both print and online visual design elements: "Most guidelines and principles that contribute to good design in printed documents apply equally to Web design" (Troyka & Hesse, 2007, p. 789).

“Tool” Metaphor

Regarding computers as mere “tools” minimizes the complexity of technology and the uses to which it is put. The concept of technology as tool implies that it is neutral and innocuous.

In its typical utilitarian fashion, *The Simon & Schuster Handbook* succinctly states “Computers are important tools for creating documents, finding resources, managing work, and communicating with others” (Troyka & Hesse, 2007, p. 19). Each item in this list is subsequently examined at length, elaborating on the copious benefits of technology in each of these areas.

On the two facing pages that contain this elaboration in the textbook (Troyka & Hesse, 2007, p. 22-23), the word “help” – both as a noun and as a verb – was used repeatedly with reference to the capabilities of technology: “offers invaluable help,” “programs are a big help,” Computers help you find,” and “technologies not only help you communicate with friends but also help you prepare formal writing projects.” Likewise, “helping” was also used, “In addition to helping you produce and revise writing.” Through repetition, it seems obvious that we are meant to view technology as an aid but not the agent. “Internet searches help you find topics to write about” (Troyka & Hesse, 2007, p. 42)

On these same two pages, the word “easily” appears twice with regard to the use of technology in writing. The word “quick” also appears, along with the phrase “can save you time.” “Quick” and “easy,” when taken together, usually mean the same thing as “efficient.” When applied to technology, the

word “efficient” is certainly not a neutral term. One might become a more efficient thief or a more efficient murderer, for example. And in general, “quick” and “easy” are not terms generally applied to the writing process, certainly not from a student’s perspective.

With regard to word processing programs in particular, *SSH* examines “editing tools such as spell checker, style-checker, thesaurus, and readability analyzer” and concludes that “each tool has shortcomings serious enough to create new errors. Yet, if you use the tools intelligently with their shortcomings in mind, they can be useful” (Troyka & Hesse, 2007, p. 63).

Product Placement

After noticing copyrighted programs and applications specified by name throughout several of the handbooks, I compared the various computer technologies mentioned in each textbook and compiled the following data table.

Product	TPH	HHH	SSH	SMH	AWR
Adobe Acrobat		X			
Adobe GoLive	X				
Adobe Photoshop			X		
AltaVista	X	X	X	X	
AOL	X				
Ask (Jeeves)	X		X	X	
Dogpile	X	X	X		
Dreamweaver	X		X	X	
Excite			X	X	
Facebook				X	
FrontPage	X	X	X	X	
Google	X	X	X	X	X
HotBot	X			X	
Infoseek		X			
InSite		X			
Internet Explorer	X		X	X	
iPod			X	X	

Ixquick				X	
LiveJournal				X	
Lycos	X	X	X	X	
Metacrawler	X	X	X		
Microsoft Word	X		X	X	
Mozilla Firefox			X	X	
MSN	X	X			X
MySpace				X	
Netscape	X		X		
Netscape Composer		X		X	
PageMill				X	
Podcast			X	X	X
PowerPoint	X		X	X	
Publisher			X		
Teoma	X				X
Turnitin		X			
WebCrawler	X	X		X	
Web Studio		X			
WordPerfect			X		
Yahoo!	X	X	X	X	X
Zworks				X	
Total Number	19	15	20	23	5

Figure 8. Product placement in texts.

While *AWR* falls far short in the number of programs and applications it refers to by name, the *SMH* includes the most comprehensive coverage of these same programs and applications. For example, the *SMH* is the only text to mention Facebook and MySpace, two very popular websites among students. These inclusions could perhaps make the text more accessible and interesting to students. Likewise, the *SMH* is the only text to include LiveJournal, an increasingly popular site among bloggers and effusive students. The *SMH* is also the only text that includes references to relatively obscure and specialized technologies, such as Ixquick and PageMill, which may attract the attention and respect of more advanced students.

Functional Issues

Most striking comparatively is the absence of exercises in *A Writer's Reference*. Every suggested application of a concept or rule is relegated solely to the companion Web site. When students proceed to an exercise on the companion Web site, they soon realize that every question asked appears with only two possible responses. They click on their choice, and they receive an instant evaluation accompanied by a brief explanation of the relevant concept or rule. Students have only to guess randomly, and statistically, they should answer approximately half the questions correctly. The either/or presentation of answers to the online questions severely restricts students' ability to think creatively or constructively. Every other handbook included in this study includes printed exercises in the textbook.

Several standard, practical issues are addressed in each of the five handbooks under examination. Because these issues are so universally and traditionally included in handbooks in general, I have compiled a comparative data table to illustrate the amount of coverage each handbook gives to each issue.

Feature	TPH	HHH	SSH	SMH	AWR
MLA in-text citations for electronic sources	1/17	1/13	3/20	1/17	21
MLA Works Cited citations for electronic sources	23/118	29/84	45/93	19/73	12/60
APA in-text citations for electronic sources	1/12	0/7	4/16	2/13	1/13
APA References citations for	15/79	10/30	18/63	7/38	8/32

electronic sources					
Chicago/CMS citations for electronic sources	8/44	NA	7/45	6/25	4/32
CSE citations for electronic sources	5/31	NA	1/23	6/17	NA
Definition of Boolean search	X	X	X	X	X
Number of fonts illustrated in text	12	8	4	1 named 3 unnamed	7
Discipline-specific databases presented: Humanities	11	0	0	7	1
Discipline-specific databases presented: Business	3	0	0	3	0
Discipline-specific databases presented: Social Sciences	9	0	0	9	2
Discipline-specific databases presented: Natural Sciences	3	0	0	3	1
HTML		X	X	X	X
PDF					X
Domain Names	8	5			
Sans serif	X	X	X	X	
Internet Plagiarism	X	X	X		X
Wiki			X	X	X
Podcast			X	X	X
Webcast	X			X	
Visual Search Engines	5	6	4	Mentioned but not listed	

Listserv	X	X	X	X	
Graphics/Visual Aids Illustrations	5	5	4	7	8

Figure 9. Functional issues in texts.

While *TPH* seems to have the most comprehensive coverage in general, it fails to address several of the most basic and popular programs.

Political Issues

Disappointingly, discussion of political issues remained scarce throughout each of the five handbooks. No explicit references to the issues Selfe and others identify as troubling and attention-worthy were found (i.e., access, gender, etc.).

The Penguin Handbook does contain some interesting tangential statements pertaining loosely to those same political issues. In a chapter entitled, “Write for Diverse Audiences,” Faigley uses the first subsection to encourage students to “Understand English as a Global Language” (2005, p. 573). This subsection immediately precedes another entitled “Respect Differences in Language and Culture” (Faigley, 2005, p. 576). These headings could speak to intercultural communication issues, highlighting potential ethnocentrism.

With regard to technology in particular, *SSH* notes that, “If you own a computer or live with someone who does, you enjoy some obvious conveniences. If you don’t, however, you can use computers on most campuses (often in libraries and student centers), in public libraries, and in Internet Cafes” (Troyka & Hesse, 2007, p. 19). This speaks to issues of

access and socio-economics. If one does not own a computer, the “obvious conveniences” must be pursued through travel, time, and energy. The *SSH* may be unwittingly privileging those with the means to afford a personal computer.

Intimations of Critical Technological Literacy

The *SMH* emerges as the forerunner in linking critical thinking to technology. At the end of each chapter, *SMH* includes a question/exercise, which asks students to think critically about the content of the preceding chapter. At the end of chapter three, entitled “Rhetorical Situations,” the text encourages “Thinking Critically about Rhetorical Situations” (Lunsford, 2008, p. 47). Students are asked to analyze two different advertisements for the same product. Similarly, at the end of chapter 4, entitled “Visual Thinking,” *SMH* encourages “Thinking Critically About Visual Elements” and asks students to visually analyze a piece of their own writing (Lunsford, 2008, p. 53). While these exercises do not entail critical thinking about technology *per se*, they are approaching the spirit of critical thinking in a freshman composition handbook.

The *SMH* devotes an entire chapter to critical thinking and visual rhetoric entitled “Thinking Critically about Visuals” (Lunsford, 2008, p. 168). At the end of chapter 22, entitled “Computer Basics,” the exercise calls for “Thinking Critically about Writing with Computers” (Lunsford, 2008, p. 446). This exercise asks students to tabulate the number of times in a day that they use the computer for writing of any kind. For each instance, the students are

asked several questions designed to promote responses about the link between technology and literacy acts:

- What kinds of writing do you use the computer for most often?
- How is the writing you do on the computer related to reading?
- To speaking?
- What differences can you note between the informal writing you do on a computer and the more formal or academic writing?
- How would you describe the tone and voice of your online writing – and how do you differ from one audience to the next? (Lunsford, 2008, p. 446)

Though these questions are not particularly critical or innovative, once again, they resemble most closely what most scholars describe and call for in attempting to foster a critical technological literacy.

In the same chapter ("Computer Basics"), the *SMH* makes a pleasingly progressive statement: "Much of our communication today takes place electronically . . . So prevalent is this form of communication in our daily lives that we may stop thinking about it consciously" (Lunsford, 2008, p. 439). This notion is at the heart of many scholars' concerns about the invisibility/transparency of the technology itself and the subsequent ignoring of the material bases of technology and literacy. While I was temporarily encouraged by this admission in the *SMH*, I was soon disabused of any real hope. The text goes on to condemn the increasingly informal style in email.

The *SSH* also incorporates a general approach to critical thinking in general, devoting an entire chapter to “Thinking, Reading, and Writing Critically” (Troyka & Hesse, 2007, p. 115) and another to “Critically Analyzing Images and Using Them” (Troyka & Hesse, 2007, p. 171). Much earlier, in the first chapter of the book, students are asked to consider “How do computers shape the writing process?” (Troyka & Hesse, 2007, p. 19). Again, my hopes for a progressive and critical discussion of the technology-literacy link soon sank. The *SSH* follows this intriguing question with four brief sub-sections, all wholly practical: “creating documents,” “finding resources,” “managing your work,” “communicating with others” (Troyka & Hesse, 2007, p. 19-23).

The Penguin Handbook likewise includes a separate chapter for “Critical Reading and Viewing” (Faigley, 2005, p. 104), but the *HH* and *AWR* make no explicit references of any kind to critical thinking, reading, or writing with regard to technology.

CHAPTER V

CONCLUSION

Review of Findings

Through content analysis and historical comparison of the five handbooks under examination, several patterns and themes emerged. From the explicitly stated goals of each handbook, readers may comprehend other findings in the appropriate context. *The Penguin Handbook* focuses intently on visual concerns, while the *SSH* is comprehensive and utilitarian. The *HH* takes a pointedly rhetorical approach to writing, while *AWR* focuses on efficiency of use as well as of writing. The *SMH* also uses a rhetorical perspective but at the same time addresses visual concerns as well.

The first and most striking finding is the decreased explicit emphasis on the technology itself. In the 16th edition of The *HH*, the number of "Computer Boxes" is cut in half compared to the 15th edition. Similarly, the "Beyond the Rules" boxes, which direct students to the companion website of the textbook, were cut from 56 to 6 between the 15th and 16th editions. This same trend continues in *TPH*, in which all of the "Computer Strategies" boxes in the 1st edition (19 in total) disappear entirely in the 2nd edition. The "Glossary of Computer Terms" present in the 1st edition also completely disappears in the 2nd edition. This same phenomenon occurs in *SMH*; the 5th edition includes two glossaries, one of which is entitled a "Glossary of Grammatical and Computer Terms," whereas the 6th edition includes only one, entitled "Glossary of Terms." The "Online Writing and Research

Directory" also disappears from the *SMH* 5th edition, as does a large number of links to the companion website.

Another finding among the five handbooks under examination is that each acknowledges an expanded definition of "text." The *SSH* actually uses the contemporary jargon of the field in defining "multimodal" as it pertains to texts. Each handbook admits that the term "text" has expanded to include visuals, sounds, and animation. The *SMH* expands this notion further to blur the traditional roles of reader and writer in constructing meaning.

Interestingly, if this trend toward a social constructivist pedagogy persists, some scholars question the viability of any textbook at all. Brent explains that "if the dominant model of the classroom changes from a knowledge-reception to a knowledge-making model, the textbook as presently constituted will no longer have a role" (Brent, 1994, p. 6). Textbooks, by their presumed authority and prominence in higher education, generally relegate the student's role to that of a passive learner, while the scholarship in the field advocates a more progressive model of knowledge construction. While the SMH contains a glimmer of hope with a tangential nod to social constructivist theories, the handbooks examined in this study lag behind the scholarship, and may, as Brent suggests, no longer be of any real use.

With the inclusion of visuals in the definition of "text," each of the handbooks also focuses on the visual elements of communication. As the self-proclaimed leader in this regard, *TPH* includes the most extensive

coverage of visual rhetoric. The *SSH*, *TPH* and *SMH* all include separate chapters on the subject, while *TPH* is the only handbook to include images on its cover.

In these respects, the material in the handbooks most closely aligns with the scholarship in the field. Porter (2003) claims, “We are already in the age of new media, where visual and video forms of expression supersede alphabetic ‘text.’” Likewise, in his book *The Rise of the Image, the Fall of the Word*, Stephens believes we are in “transition from a culture dominated by the printed word to one dominated by moving images” (1998, preface).

Even with the expansion of the definition of text and the advances in technology that make such expansions possible, technology still remains in the service of rhetoric. Traditional notions regarding the basic principles of textual production and distribution continue to direct and dominate writing instruction in these five handbooks. The technology of the 21st century remains limited by rhetorical principles systematized centuries ago.

Most scholars, however, call for a reworking of the cannons of rhetoric to accommodate the myriad changes in communication brought about by computer technology. Cesarini asserts that “electronic technologies are forcing us again to reexamine many classical notions of rhetoric, particularly the nature of texts, authorship, audience, rhetorical situation/context, and literacy itself” (2004, p. 9). The tendency in handbooks to fit new technologies into old frameworks belies the conservative and traditional nature of textbook publishing and demonstrates the often-lamented discrepancy between what is

being published in the textbooks and what is being published in the scholarship of the field.

The potential of this technology to advance the educational and economic prospects of our students, however, suffers from no such constraint. Many of the texts equate information with power and glorify the benefits of computer technology. Success, according to the handbooks, depends on facility with digital technologies. Ironically, this attitude is contrasted with a discernable cautionary tone in each of the handbooks. The pitfalls and dangers of relying too heavily on technology alone are evident and maintained throughout each text.

Despite the innovation that technology brings, most of the handbooks readily admit that technology will not supplant the fundamentals of good writing; rather, the technology will supplement already established theories and pedagogies. This prediction incorporates yet another of the findings, in which several of the handbooks employ the “tool” metaphor to describe computer technology. Galin (2003) cautions against this metaphor, arguing that it relegates technology to a “singular function” and that it characterizes the technology as simple and predictable (p. 13). Instead, he believes that “as teachers, researchers, and programmers, we need to think critically about our metaphors” (p. 14).

To a greater or lesser extent, each handbook also mentions specific, branded applications and programs for this computer technology. The *SMH* included the highest number of references (23), while *AWR* referenced the

fewest number (5). In terms of functional issues, all the handbooks covered standard, practical topics relating to technology and writing: citation of electronic sources, different databases, internet plagiarism, etc.

In terms of political issues, initial expectations for political commentary on technology and literacy went unrealized, while many insights regarding pedagogical concerns of technology and literacy emerged as significant. Despite the literature supporting handbooks as valuable objects of study, perhaps examining a broader genre of textbook would have yielded more exposition on matters relating to social, educational, and political inequities perpetuated through the use of computer technology in the writing classroom.

Selfe's corrective to this danger, critical technological literacy, barely materializes in only two of the handbooks under examination, while the others ignore the topic completely. While all the handbooks urgently recommend the various uses of technology to improve communication, none asks the students to examine literacy practices through the technology or to examine the technology itself. Snyder (2002) calls for a theory of critical technological literacy as she looks to the future:

> Literacy educators cannot be satisfied with merely identifying, describing, and making familiar to students the new multimodal text types: this represents an increasingly inadequate response to the changes to literacy practices associated with the use of new technologies. We need to develop pedagogical and curriculum frameworks that seek to endow students with a sense of their place in

> the new global system, but also with the capacity to view that system critically. At the very least, we can help our students to engage in local forms of cultural critique. (p. 175)

Significance of Findings

As established in Chapter II, textbooks wield an undeniable influence on students, faculty, and writing programs. Because of this influence, it is necessary to critically examine the ways in which the textbook directs the reading audience. Textbooks have the potential to send readers in confusing and even contradictory directions. As a researcher who has studied technology and textbooks, I believe the handbooks under examination in this study have proven to be more sensible than I originally predicted.

Despite the often documented and lamented lag between scholarship in the field and instruction in the textbooks, the fact that many of the handbooks in this study are written by experts facilitates the interpretation that composition handbooks are better informed and more contemporary than usually expected.

The decreased explicit emphasis on the technology itself seems to recognize students' growing familiarity and facility with emerging hardware and software applications. Instead of continuing to publish what has become "common knowledge," textbook authors and editors have eliminated definitions and explanations that are no longer necessary. This responsiveness, in light of students' rapid acquisition of computer skills in relatively few years, also alludes to an awareness and a recency that are

perhaps unusual. Further, the product placement in several of the handbooks presents various state-of-the-art software programs, which again allude to a recency and responsiveness to very current market trends.

Also, the emphasis on visual rhetoric in the handbooks, for example, acknowledges the recent and urgent need for instruction in this area. Students are no longer mere receivers of multimedia; they now require guidance in order to use the various media to greatest effect, and the handbooks in this study were responsive to this phenomena.

However, the thrust of this research project was to ascertain the extent to which notions of critical technological literacy, championed in the scholarship of the field, are incorporated into the handbooks of the discipline. In this regard, the handbooks do not directly address the political implications of Selfe's theories and therefore seem to lag behind the scholarship. This may be explained by the nature of the objects under study.

Handbooks must apply to a wide variety of readers, so in this case, it may be advisable to say less about the political context, leaving the topic open for the instructor to define and discuss. If the handbooks were too narrowly focused on the technology, or if they did not discuss technology at all, the handbooks would cease to fulfill their function.

The implications of this study for teaching allow for greater confidence in handbook treatments of technology. While some dissonance does still exist between scholarship and textbook content, this study itself is evidence that

issues of technological literacy in writing instruction are becoming more prominent.

Ideally, this study will serve to heighten awareness of the messages about technology being transmitted through our instructional materials. As such, the implications for future research are manifold. Future studies could further investigate different types of messages being transmitted through different types of textbooks.

While this study focuses on Selfe's notion of critical technological literacy, future studies could focus on various other approaches to technology. And because the handbook is used mostly for quick reference, the brevity and objectivity of the text preclude any extended examination or discussion of issues. Other types of textbooks (i.e., readers, rhetorics, etc.) may very well yield more copious and developed approaches to technological literacy.

Critical technological literacy itself, as a specific approach, is a theory and a practice that is currently still developing. As critical technological literacy gains momentum in composition pedagogy, the ways in which it is theorized and practiced will also develop. These emerging pedagogies will in turn inform and be informed by continuing research.

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Appendix A

Quantitative Data from The Harbrace Handbook

Table A1

Computer Boxes and "Beyond the Rule" Boxes

Textbook	**Total Number of Pages**	**Computer Boxes**	**"Beyond the Rule" Boxes**
Harbrace Handbook, 15th ed.	876	32	56
Harbrace Handbook, 16th ed.	793	13	6

Table A2

Computer Boxes, 15th ed.

Topic	**Page Number**
Grammar Checker	
Overview	2
Fragments	48
Comma-Splice/Fused Sentences	57
Pronoun Case	88
Pronoun Agreement	111
Verbs	146
Comma	213
Apostrophe	239
Hyphen	276
Sexist Language	285
Idioms	306
Completeness	321
Dangling/Misplaced Modifiers	343
Sentence Variety	372
Word Processing	
Brainstorming	423
Outline	436
Drafting	444
Revision	446
Tone	449
Formatting Template	741
Literary Essay	717
Documentation Websites	601
Plagiarism Online	598
Electronic Argumentation	527
Improved Efficiency	585
Format/Layout	472
Peer Review	461
Email	413
Spell Check	269
Angle Brackets	258
Auto Correct	180
Typesetting	249

Table A3

"Beyond the Rule" Boxes, 15th ed.

Topic	**Page Number**
Sentence Types	3
Parts of Speech	5
Verbs and Nouns	20
Phrase	25
Split Infinitive	31
Fragments	55
Conjunctive Adverbs	69
Adjectives	74
Adverbs	79
Modifiers	84
Double Negatives	86
Pronoun Case	90
Pronoun Case – Possessive/Objective	95
Pronoun Case – Subjective	96
Who/Whom	99
Pronoun Agreement	107
"None"	109
Pronouns – Gender	114
Irregular Verbs	122
Subjunctive	145
HTML	153
Web Accessibility	155
HTML (definition)	166
Capitalization	183
Postal Abbreviations	197
Comma (history)	208
Comma - Non-essential elements	216
Semicolon (history)	227
Colon	252
Dash/Parenthesis	257
Spelling	266
Spelling	274
Pronunciation	269
Plain Style	281
Inclusive Language	289
Cliches	304
"We"	308
Speech and Writing	322
Subordination	336
Parallelism	350
Emphasis	362

Concise	373
Conjunctions (polysyndeton)	377
Exigence	417
Editing/Proofreading	473
Rhetorical Fallacies	514
Infotrac	559
IRBs	567
Plagiarism	598
Intellectual Property	599
Thick Analysis	698
Literary Terms	709
Email	727
Resume/Cover Letter	741
Business Writing	744
Usage Rules	746
Book Reviews	572

Table A4

Computer Boxes, 16th ed.

Topic	**Page Number**
Grammar Checker	
Overview	3
Hyphen	268
Passive	351
Usage Errors	696
Word Processing	
Revision	419
Tone	422
Passive Constructions	139
HTML	161
Typesetting	241
Angle Brackets	252
Spell Check	261
Email	377
Plagiarism Online	547

Table A5

"Beyond the Rule" Boxes, 16th ed.

Topic	**Page Number**
Split Infinitive	31
Abbreviated Sentences	59
"What"	107
Postal Abbreviations	190
"We"	294
Columbia Guide	590

Appendix B

Quantitative Data from The Penguin Handbook

Table B1

"Computer Strategies" Boxes and" Common Errors" boxes, 1st & 2nd eds.

Textbook	**Total Number of Pages**	**"Computer Strategies" Boxes**	**"Common Errors" Boxes**
Penguin Handbook, 1st ed.	862	19	42
Penguin Handbook, 2nd ed.	900	0	43

Table B2

"Computer Strategies" 1st ed.

Topic	**Page Number**
Freewriting	41
Researching online	43
Saving	59
Arguments on web	163
Copying images	206
Homepage	233
Organizing files	244
Reload button	252
Keywords	292
Subject Headings	294
Search engines	302
Web searches	306
Bookmarks	310
Evaluating web sources	324
Documenting web sources	354
Literary resources online	411
Electronic dictionaries	536
Capitals in emails	747
Acronyms/Abbreviations	759

Table B3

"Common Errors" Boxes, 1st ed.

Topic	Page Number
Grammar	
Adjectives/adverbs	649
Comma splices	583
Empty intensifiers	483
Parallelism	500
Fragments	574
Verb endings	602
"One" as subject	636
Irregular verbs	611
Limiting modifiers	658
Pronoun agreement	633
Run-ons	580
Infinitive phrases	476
Subject-verb agreement	589
Subject-verb "each"	596
Subject-verb indefinite pronouns	631
Verb tense shifts	617
Vague use of "this"	641
Who/Whom	626
ESL Grammar	
Articles	772
Dangling modifiers	792
Prepositions	795
Countable nouns	770
Punctuation/Mechanics	
Capitalization	748
Colons	697
Commas – compound sentences	670
Commas – introductory modifiers	667
Commas – that/which	677
Commas – "because"	672
Hyphens	701
Abbreviations/Acronyms	756
Apostrophe – personal pronouns	715
Apostrophe – plural nouns	718
Dashes/periods	707
Dash – typing	712
Parentheses – punctuation	709
Quotations	727

Semicolon	691
Spelling and Words	
Misspelled words	546
Words often confused	518
Writing and Research	
Narrator vs. author	399
Plagiarism	332

Table B4

"Common Errors" Boxes, 2nd ed.

Topic	Page Number
Grammar	
Adjectives/adverbs	672
Comma splices	611
"Each" and subject-verb agreement	624
Empty intensifiers	527
Faulty parallelism	543
Fragments	603
Indefinite pronouns	657
Limiting modifiers	680
Missing verb endings	631
"One" used as subject	661
Past tense irregular verbs	639
Passive voice with infinitive	521
Pronouns with compound antecedents	659
Run-on sentences	608
Subjects separated from verbs	618
Tense shifts	644
Vague use of *this*	665
Who or *Whom*	652
ESL Grammar	
Articles with count and noncount nouns	803
Dangling modifiers	821
Misused prepositions	824
Countable nouns	800
Punctuation and Mechanics	
Abbreviations/acronyms, plural vs. possessive	783
Abbreviations/acronyms, with periods	786
Apostrophe with plural nouns	736
Capitalization	776
Colons misused with lists	715
Commas before *because*	691
Commas in compound sentences	690
Commas with long introductory modifiers	687

Dashes	724
Hyphens with numbers	720
Its/It's, *theirs/their's*	733
Parentheses	727
Quotations within quotations	745
Semicolons with *however*, *therefore*, etc.	710
Typing a dash	729
Spelling and Words	
Commonly misspelled words	772
Words often confused	557
Writing and Research	
Narrator, speaker, and author	413
Plagiarism	327
Designing and presenting	
Crowded slides	238

Appendix C

Quantitative Data from The St. Martin's Handbook

Table C1

Intertextual References, Web Links, and Computer Icons in 5th ed.

Chapter Number & Title	**Intertextual References**	**Web Links**	**Computer Icons**
Introduction: Learning from Your Errors	31	1	0
1. Reading, Writing, and Research	5	1	1
2. Considering Rhetorical Situations	5	1	1
3. Exploring, Planning, and Drafting	10	1	2
4. Reviewing, Revising, and Editing	16	3	1
5. Developing Paragraphs	5	0	1
6. Collaborating – Online and Off	4	0	2
7. Writing with Computers – The Basics	6	2	1
8. Document Design	11	1	4
9. Web Texts	6	5	8
10 Oral and Multimedia Presentations	6	1	1
11. Analyzing Arguments	5	0	0
12. Considering Visual Arguments	0	0	1
13. Constructing Arguments	15	2	2
14. Preparing for a Research Project	12	0	2
15. Conducting Research	10	3	6
16. Evaluating Sources and Taking Notes	6	0	5
17. Integrating Sources into Your Writing	6	0	1
18. Acknowledging Sources and Avoiding Plagiarism	5	1	0
19. Writing a Research Project	10	0	3
20. MLA Documentation	10	2	3
21. APA Documentation	6	1	2
22. CBE Documentation	2	1	2
23. Chicago Documentation	2	2	4
24. Writing to the World	2	0	0
25. Language that Builds Common Ground	2	2	0
26. Language Variety	1	1	0
27. Diction	1	4	1
28. Dictionaries	1	2	0
29. Vocabulary	1	0	0
30. Spelling	1	4	1
31. Grammatical Sentences	16	15	0
32. Pronoun Case	3	2	0
33. Verbs	4	6	0
34. Subject-Verb Agreement	1	2	0
35. Pronoun-Antecedent Agreement	2	1	0
36. Adjectives and Adverbs	2	2	0

37. Clear Pronoun Reference	1	1	0
38. Shifts	3	1	0
39. Comma Splices and Fused Sentences	4	1	0
40. Sentence Fragments	1	1	0
41. Modifier Placement	0	4	0
42. Consistent and Complete Structures	0	2	0
43. Effective Sentences	1	2	1
44. Coordination and Subordination	2	1	0
45. Parallelism	3	1	0
46. Varied Sentences	5	0	0
47. Memorable Prose	2	1	0
48. Commas	9	8	0
49. Semicolons	2	2	0
50. End Punctuation	3	3	0
51. Apostrophes	0	1	0
52. Quotation Marks	3	2	0
53. Other Punctuation Marks	1	3	2
54. Capitals	0	1	1
55. Abbreviations and Numbers	1	3	1
56. Italics	0	1	1
57. Hyphens	0	1	1
58. U.S. Academic Conventions	8	0	0
59. Nouns and Noun Phrases	0	1	0
60. Verbs and Verb Phrases	0	1	0
61. Prepositions and Prepositional Phrases	2	1	0
62. Clauses and Sentences	2	1	0
63. Understanding Disciplinary Discourse	2	1	1
64. Writing for the Humanities	3	3	1
65. Writing for the Social Sciences	3	2	1
66. Writing for the Natural and Applied Sciences	4	3	1
67. Writing for Business	3	2	3
68. Essay Examinations	4	0	2
69. Writing Portfolios	2	0	2
TOTALS	305	124	

Table C2

Number of References to Companion Website in 6th ed.

Chapter Number & Title	**Number of References to Companion Website**
1. Expectations for College Writing	0
2. Reading, Writing, and Research	3
3. Rhetorical Situations	1
4. Visual Thinking	0
5. Exploring, Planning, and Drafting	1
6. Reviewing, Revising, and Editing	2
7. Developing Paragraphs	0
8. Working with Others	0
9. Analyzing Arguments	0
10. Thinking Critically about Visuals	0
11. Constructing Arguments	2
12. Preparing for a Research Project	0
13. Conducting Research	2
14. Evaluating Sources and Taking Notes	1
15. Integrating Sources Into Your Writing	0
16. Acknowledging Sources and Avoiding Plagiarism	1
17. Writing a Research Project	0
18. MLA Style	6
19. APA Style	1
20. *Chicago* Style	1
21. CSE Style	1
22. Computer Basics	2
23. Document Design	1
24. Online Texts	1
25. Oral and Multimedia Presentations	0
26. Writing to the World	0
27. Language That Builds Common Ground	2
28. Language Variety	1
29. Word Choice	4
30. Dictionaries, Vocabulary, and Spelling	4
31. Grammatical Sentences	12
32. Verbs	6
33. Subject-Verb Agreements	2
34. Pronouns	5
35. Adjectives and Adverbs	2
36. Shifts	1
37. Parallelism	1
38. Comma Splices and Fused Sentences	1
39. Sentence Fragments	2

40. Modifier Placement	4
41. Consistent and Complete Structures	2
42. Effective Sentences	1
43. Coordination and Subordination	2
44. Sentence Variety	0
45. Memorable Prose	1
46. Commas	7
47. Semicolons	2
48. End Punctuation	1
49. Apostrophes	2
50. Quotation Marks	1
51. Other Punctuation Marks	3
52. Capital Letters	1
53. Abbreviations and Numbers	2
54. Italics	1
55. Hyphens	1
56. Writing in U.S. Academic Contexts	0
57. Clauses and Sentences	1
58. Nouns and Noun Phrases	1
59. Verbs and Verb Phrases	1
60. Prepositions and Prepositions Phrases	1
61. Academic Work in Any Discipline	0
62. Writing for the Humanities	2
63. Writing for the Social Sciences	2
64. Writing for the Natural and Applied Sciences	2
65. Writing for Business	4
66. Essay Examinations and Portfolios	0
TOTAL	68

Appendix D

Quantitative Data from *A Writer's Reference*

Table D1

"On the Web" Links and Grammar Checker Boxes in 5th ed.

Chapter Number and Title	**"On The Web" Links**	**Grammar Checker Boxes**
1. Planning	2	0
2. Drafting	1	0
3. Revising	3	2
4. Writing Paragraphs	2	0
5. Constructing Arguments	1	0
6. Evaluating Arguments	1	0
7. Principles of Document Design	1	0
8. Academic Manuscripts Formats	0	0
9. Business Documents	1	0
10. Electronic Documents	1	0
11. Parallelism	1	1
12. Needed Words	1	1
13. Problems with Modifiers	3	1
14. Shifts	1	1
15. Mixed Constructions	1	1
16. Emphasis	2	0
17. Variety	0	1
18. Glossary of Usage	1	1
19. Wordy Sentences	1	1
20. Active Verbs	2	1
21. Appropriate Language	3	3
22. Exact Language	4	2
23. The Dictionary and Thesaurus	0	0
24. Subject-Verb Agreement	3	1
25. Problems with Verbs	4	4
26. Problems with Pronouns	9	4
27. Adjectives and Adverbs	3	1
28. Sentence Fragments	1	1
29. Run-on Sentences	2	1
30. Articles	1	1
31. Special Problems with Verbs	1	1
32. Sentence Structure	1	2
33. Other Trouble Spots	1	1
34. Comma	4	1
35. Semicolon	1	1
36. Colon	1	1
37. Apostrophe	1	1
38. Quotation Marks	1	1
39. Other Marks	1	1

40. Spelling	1	1
41. Hyphen	1	0
42. Capitalization	1	0
43. Abbreviations	1	0
44. Numbers	1	0
45. Italics	1	0
46. Conducting Research	3	0
47. Evaluating Sources	1	0
48. Managing Information	0	0
49. Choosing a Style of Documentation	0	0
50. MLA – Supporting a Thesis	1	0
51. MLA – Avoiding Plagiarism	1	0
52. MLA – Integrating Sources	1	0
53. MLA – Documenting Sources	2	0
54. MLA – Manuscript Format	1	0
55. APA – Supporting a Thesis	1	0
56. APA – Avoiding Plagiarism	1	0
57. APA – Integrating Sources	1	0
58. APA – Documenting Sources	2	0
59. APA – Manuscript Format	1	0
60. CMS – Supporting a Thesis	1	0
61. CMS – Avoiding Plagiarism	1	0
62. CMA – Integrating Sources	1	0
63. CMA – Documenting Sources	2	0
64. CMS – Manuscript Format	1	0
65. Parts of Speech	1	0
66. Parts of Sentences	1	0
67. Subordinate Word Groups	1	0
68. Sentence Types	1	0
TOTALS	100	40

Table D2

"On the Web" Links and Grammar Checker Boxes in 6th ed.

Chapter Number and Title	**"On The Web" Links**	**Grammar Checker Boxes**
1. Planning	3	0
2. Drafting	2	0
3. Revising	4	2
4. Writing Paragraphs	2	0
5. Designing Documents	3	0
6. Writing About Texts	2	0
7. Constructing Reasonable Arguments	2	0
8. Evaluating Arguments	1	0
9. Writing in the Disciplines	0	0
10. Parallelism	1	1
11. Needed Words	1	1
12. Problems with Modifiers	3	1
13. Shifts	1	1
14. Mixed Constructions	1	1
15. Sentence Emphasis	2	1
17. Sentence Variety	0	1
18. Glossary of Usage	1	1
19. Wordy Sentences	1	1
20. Active Verbs	2	2
21. Appropriate Language	3	3
22. Exact Language	4	1
23. The Dictionary and Thesaurus	0	0
24. Subject-Verb Agreement	3	1
25. Other Problems with Verbs	4	5
26. Problems with Pronouns	10	4
27. Adjectives and Adverbs	3	1
28. Sentence Fragments	1	1
29. Run-on Sentences	2	1
30. Verbs (ESL)	2	0
31. Sentence Structure (ESL)	1	2
32. Articles and Types of Nouns (ESL)	1	1
33. Using Adjectives (ESL)	1	1
34. Prepositions and Idiomatic Expressions (ESL)	1	0
35. Comma	3	1
36. Unnecessary Commas	1	0
37. Semicolon	1	1
38. Colon	1	1
39. Apostrophe	2	1
40. Quotation Marks	1	1
41. Other Marks	1	1
42. Spelling	1	1
43. Hyphen	1	1

44. Capitalization	1	1
45. Abbreviations	1	1
46. Numbers	1	1
47. Italics/Underlining	1	1
48. Conducting Research	3	0
49. Evaluating Sources	0	0
50. Managing Information/Avoiding Plagiarism	1	0
51. Choosing a Documentation Style	0	0
52. MLA – Supporting a Thesis	1	0
53. MLA – Citing Sources	1	0
54. MLA – Integrating Sources	1	0
55. MLA – Documenting Sources	4	0
56. MLA – Manuscript Format	2	0
57. APA – Supporting a Thesis	1	0
58. APA – Citing Sources	1	0
59. APA – Integrating Sources	1	0
60. APA – Documenting Sources	3	0
61. APA – Manuscript Format	1	0
62. CMS – Supporting a Thesis	1	0
63. CMS – Citing Sources	1	0
64. CMS – Integrating Sources	1	0
65. CMS – Documenting Sources	3	0
66. CMS – Manuscript Format	1	0
67. Parts of Speech	1	0
68. Parts of Sentences	1	0
69. Subordinate Word Groups	1	
70. Sentence Types	1	
TOTALS		46