



# A History of WAC at a College of Pharmacy

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The argument for writing across the curriculum is usually centered on what Fulwiler and Young describe as “the premise that integrative writing tasks will improve undergraduate learning and communication abilities” (291). For most institutions, particularly universities with diverse curricular offerings, less clearly articulated is the relationship between where students might be headed after graduation and the skills and knowledge they need to learn, including writing. However, for professional colleges, such as pharmacy, the day-to-day lives of working professionals tend to exert a powerful influence on what happens in the classroom. The path from practitioner activities to professional association recommendations to actual curriculum and pedagogy is a fairly clear one, both historically and currently. The demands of the profession also occur in larger contexts, whether dictated by legislation, economic forces, or cultural and historical circumstances, all factors that have influenced if and when writing gets taught in the classroom.

For the Massachusetts College of Pharmacy and Health Sciences (MCP), writing has been part of students’ academic lives in varying degrees for over 130 years, whether it was the thesis that each graduate of the first class of 1869 was required to write, the laboratory reports that were assigned in each course of instruction at the turn of the 20<sup>th</sup> century, the business letters that were part of the course in “commercial pharmacy” in 1915, or the writing in required freshman English first instituted in 1932 and continuing to this day. The presence of writing is one aspect of a curriculum that has evolved and expanded greatly over the last 130 years, just as the role of the pharmacist has altered over that time. Placing these writing activities in the context of my college’s responses to historical trends gives a great deal of insight into the pitfalls and potential for current writing-across-the-curriculum efforts, those I am charged with in my role as Writing Programs Coordinator. Thus, in the narrative that follows I

attempt to accomplish two purposes: 1) to describe the intertwined relationship between specific student writing activities, the college's perceived demands of pharmacy professionals, and specific cultural/social forces; and 2) to demonstrate that local historical research via documents that most of our institutions archive—course catalogs, bulletins, brochures, student newspapers, yearbooks, and committee reports—can tell us a great deal about the contexts for previous WAC efforts and the potential for the success of future ones.

While my account is about one institution and its specific professional orientation, the social history that follows has been repeated countless times: curricular decisions have been driven by professional standards, enrollment and workload pressures, and changing student demographics, all forces that shifted over the years as the use of writing ebbed and flowed. As David Russell soberly reminds us in his history of WAC, “each generation has produced its own versions of cross-curricular writing programs, yet none, except perhaps the last, has made a permanent impact on the modern university curriculum or on literacy in America” (8). My hope is that the narrative that follows acts as a guide both for understanding the past and for future action whose impact is more permanent than the efforts Russell describes.

### **1869-1915: Inculcation into the Profession**

MCP was first conceived of in 1823, when an “association of apothecaries” met “to regulate the education of apprentices” and “to encourage the use of superior-quality drugs,” according to the 175<sup>th</sup> anniversary edition of the college's *Bulletin*. However, it wasn't until 1852 that the state granted the college a charter, and in 1867, the college began offering a series of lectures in three subject areas: pharmacy, materia medica and botany, and chemistry. The first ten graduates received their PhG (Graduate in Pharmacy) in 1869. These graduates were also subject to one of the more pervasive and visible writing requirements of these early years—a thesis. As described in the college catalog of 1872-73, this document would be “an original dissertation, or thesis, upon some subject of pharmacy, materia medica, chemistry, or one of the branches of science closely connected therewith, which shall be written with neatness and accuracy.” During this time, a thesis prize was awarded by the college trustees, described in the 1885-86 catalog as “twenty-five dollars for the best thesis, fifteen dollars for the second and ten dollars for the third.”

The thesis requirement was not merely a final hurdle before graduation, however. Instead, its intent seemed to be to inculcate students into the profession of pharmacy, particularly its scholar-

ship. As the catalog of 1882-83 described, "Such theses as are deemed worthy it is intended to have published in some one of the pharmaceutical journals." Additionally, the thesis was an activity that included an oral component starting in the 1885-86 school year as students were required "to read their thesis before members of the college in open session." Thus, for early graduates, the thesis played what David Russell describes as a "celebratory, community-confirming role" (87). Students were to join a "profession," and the abilities to write and speak were essential professional attributes.

During this era, writing as an exit component was matched by a concern for entering students' writing abilities. After several years of warnings, the college catalog of 1878-79 announced that passing a "preliminary examination" in "Reading, Writing, Spelling, and Arithmetic" would be required of entering students. The following year's catalog listed the means for testing students' reading and writing skills in 1878, methods that do not sound particularly rigorous: "The examination in reading was conducted by allowing the candidate to read from any convenient book; and a scrutiny of his manner of performing his work in spelling and arithmetic constituted his examination in writing." The spelling list for 1878 was also described: "Proceed, College, Deliquescent, Concede, Knowledge, Capacious, Supersede, Distil [sic], Crystallize, Viscid." Ten years later, this preliminary examination could be satisfied by presenting "evidence of having graduated at some grammar school, or attended some high-school of a grade equal to those of this State." This requirement later became a high school degree, and the number of required years of English study was specifically described (as it is presently).

Concern with writing skills were also attended to throughout students' studies. Early college catalogs describe a distinct written component in the examinations used in every class. These timed exams were "conducted in writing by the professor in each department." An example question from the course in *Materia Medica* and Botany appeared in the catalog of 1875-76: "Write all you have time to about Cinchona." One other source of writing can be found in students' laboratory work. By 1889, the college catalog noted that a laboratory component became "part of the regular course of instruction," and laboratory work was specifically highlighted in the catalogs for the next one hundred years. As described in the catalog of 1900-1901, "The laboratory is intended to teach the students . . . to express in writing the results of observation." Overall, MCP students during this era could expect to encounter extensive use of writing, whether it was in examinations, laboratories, or as a thesis to culminate their college experience.

In the context of the pharmacy education elsewhere, the focus on MCP graduates as professionals contributing to the scholarship of the field seems relatively unusual. However, in the context of American higher education more generally, the thesis had become increasingly common at this time as the “research ideal” spread from the German university system to the American (Russell 79). Nevertheless, the focus on the science of pharmacy (as opposed to its practice) seems a choice that the founders of the college made based upon several factors, primarily the proximity to and influence from Harvard Medical School (if not an outright envy for the level to which the medical profession was held) and the larger medical climate of Boston itself, which in 1869 even had a physician, Nathaniel Shurtleff, as mayor (MCP/AHS *Bulletin*).

It is also important to note that the role of the pharmacist at this time was quite varied. According to pharmacy historian Gregory Higby, “as much as prescription filling, pharmacists were called upon to practice a fair bit of low-level ‘doctoring’: selling cough medicines, laxatives, pain relievers, and the like to customers” (16). Stohs and Muhi-Eldeen describe this role in even more powerful terms: “The pharmacist was the principal health care provider for many patients because he was considered the authority on the drug products which he made and dispensed. He had the legal right to sell any of the drugs in his possession, whether on prescription or on his own authority” (436). And the filling of prescriptions was far more complicated than what one of my colleagues calls “count, pull, lick and stick.” Instead, most prescriptions (80% into the 1920s) required some degree of “compounding,” or mixing and creation of the drugs themselves (Higby 16). Thus, pharmacists were scientist/practitioners of a sort, involved with many hands-on aspects of patient care as well as the formulation of drugs to provide that care. In this context, the thesis requirement and writing activities in the classroom were a way to inculcate students into the “learned values” of the profession, at least as interpreted by the college’s instructors during its first 40 years or so of granting degrees.

### **1915-1932: A Search for Identity**

As is often the case with required writing, the thesis was not always well received. In the *Quarterly Bulletin* of December, 1911, a writer needed to make a case for the “relevance” of this then forty-year-old requirement:

Many students have felt that their time was so limited that it was almost impossible to do the work

necessary for a satisfactory thesis and in some cases it has proven a temporary hardship. But the results of this work have been far-reaching in that the results shown have been published again and again in the pharmaceutical press always being credited to the student and to the college and if the work shows deep thought and persistence, and facts hitherto unknown are brought to light, then the reputation of the college as a teacher is advanced in the eyes of the readers and transferred sooner or later to their friends.

Despite this argument, by 1913 the thesis requirement does not appear for the pharmacy degree, only for the post-graduate degree of Pharmaceutical Chemist. The 35 graduates that year, and every pharmacy undergraduate in the 87 years since, were spared such “temporary hardship.” Shortly after the disappearance of the thesis requirement, the catalogs also stopped describing the written-examination requirement, and by the 1920s, the written component of laboratory work no longer appears. Several factors played a role in writing’s fall from prominence during this era: 1) The “objective” examination took over with its scientific “efficiency,” increasingly popular in education and industry during this time (Russell 145). 2) The shift from pharmacy as science to pharmacy as practice came about with a new generation of college leaders whose entrepreneurial success greatly influenced the curriculum. 3) Student enrollment increased greatly, with 268 students enrolled for the 1916-17 academic year and 433 students enrolled ten years later (and the college went to a three-year curriculum in 1923 to spread out these students) (MCP/AHS *Bulletin*). Faculty must have felt it quite burdensome to devote the time that instruction with writing often requires; in fact, the college did not employ any faculty member full-time until 1923 (MCP/AHS *Bulletin*).

During this time, the larger profession of pharmacy was undergoing an identity shift of sorts, or, more precisely, trying to ensure more uniform identity by standardizing its educational requirements. New York became the first state in 1910 to require all pharmacists to possess a pharmacy school diploma (Higby 16), and most other states followed, thus providing more incentive for increased enrollments. Throughout the country, the name of and years of study required for a pharmacy degree were quite varied. MCP was not immune to this flux, changing the name of its degree from “Graduate in Pharmacy” (PhG) to “Doctor of Pharmacy” from 1903 to 1914 when the PhG then returned. According to historian Glen Sonnedecker, “the doctor’s degree was offered as a ‘drawing card’ by some pharmacy colleges .

... when several professions swarmed with self-styled ‘doctors’ who lacked respectable academic credentials” (242). This search for identity on the college’s part—fueled by state requirements, increased enrollments, and a shift in curricular emphasis—meant less visible writing in students’ primary courses of study.

Nevertheless, in a trend that foreshadowed subsequent writing instruction relegated to specific courses and specific tasks, new courses in commercial pharmacy and pharmacy law were created, ones more fitting the entrepreneurial focus of this era. The catalog of 1928 describes for the course in commercial pharmacy instruction in “business letters . . . including the mechanical parts of the letters with discussion of each; stock phrases to be avoided; principles of rhetoric.” The teaching of sales-letter writing is described in this same course in the catalog of 1932: “Under sales letters, the treatment includes the required steps in the presentation of the subject matter, the function of each step, the working, and the common faults to be avoided” (36). As early as 1915, the *Bulletin* of the college reprinted student essays from this commercial pharmacy course (then an elective). Once again, the shift in what the college’s leaders saw as professional life of a pharmacist—from health-care expert akin to physician to small-business entrepreneur who sells prescription and over-the-counter medications—shifted the curricular emphasis from academic thesis to business writing. And the relationship between professional identity and instructional focus was about to shift emphasis even further away from the use of writing across the curriculum. As MCP entered the “modern” era, it would succumb to what Russell calls “the compartmentalization of knowledge” (21) as writing instruction settled into familiar territory—first-year English.

### **1932 to 1970: Writing in its Place**

In 1932 the MCP curriculum expanded to four years, leading to a Bachelor of Science in Pharmacy degree, as dictated by the American Council on Pharmaceutical Education, the accrediting body of the American Association of Colleges of Pharmacy. This professional organization emerged after decades of loosely knit oversight, usually on the state level, and responded to the profession’s desire to ensure educational standards and professional status (Sonnedecker 250). Curricular expansion meant the introduction of courses in the humanities and social sciences, as well as courses in biology, pharmacology, and biochemistry (MCP/AHS *Bulletin*). One particular course first instituted in 1932 that persists to this day is required first-year English. According to the catalog of 1933, the focus of this course was as follows:

The first-year course in English chiefly encourages the student to look for merit in the writings of the standard authors and appreciate it when he finds it. Weekly one-hour lectures present an outline of the development of English literature, from Chaucer down to the present, giving most attention to writers and literary trends but not ignoring the political and social background. Reading assignments in anthologies and a few long works keep pace with the lectures.

During another weekly hour brief lectures discussion diction and sentence and paragraph construction and brief exercises in writing require the student to put into practice the principles he has assimilated.

Considering that one instructor, Willis Bradley, was hired to conduct this course for 142 first-year students, it is not surprising that “brief exercises in writing” seemed to be the extent of students’ written endeavors. By the following year, another instructor is listed as an assistant to Mr. Bradley, and required instruction is added in second-year English. The description of this course echoes many freshman rhetorics used to this day: “[The course] carefully reviews grammar – the science of writing – and investigates many principles of rhetoric – the art of effective writing. Likewise, on the theory that clear writing cannot exist without clear thinking, it devotes a generous amount of time to exposition, including the processes of analysis, classification, and definition.”

After 1946, required English in the second year was dropped. Nevertheless, descriptions of this course showed a distinct effort to create an English class befitting students in a predominantly scientific curriculum (perhaps in an attempt to make it “relevant”). For example, the catalog of 1944 describes the course as “a study of the part played by language in the shaping of our thoughts; of verbal as compared to mathematical logic; of the fallacies resulting from erroneous use of language; and of the laws and methods of science that lead from observation to valid inference, classification, and definition and to persuasive speech and writing.”

By 1946, first-year English was put in the hands of an instructor with a Ph.D. in Armenian Language from Harvard, Joseph Skinner, and for the next twenty years it would be Skinner’s domain and would change little from a fairly traditional composition course with a focus on grammar/usage and “correct” writing.

It is interesting to note that English composition was one of the few non-pharmacy courses required when the college expanded to a

four-year degree. One way to read this curricular move is against the backdrop of a perceived “crises” in students’ writing skills. The creation of required English in 1932 might have come from the perception that the college was attracting a “new” kind of student, one less prepared than students of the past. The sons and daughters of the vast numbers of Eastern and Southern Europeans who immigrated to America at the turn of the century were seeking higher education in ever greater numbers (Levine). MCP was included in this demand as the first-year class lists from the early 1930s shows the dominance of “ethnic” surnames. Though the entrance requirement was the same as in previous years, the language backgrounds of students were different, and English became a required course, just as it did in most institutions at the time (Lerner).

The expansion of the curriculum and the rise of disciplinary specialty (including writing) also existed in an arena of shifting demands upon working pharmacists. Stohs and Muhi-Eldeen label this period the “scientific era” due to “the industrialization of pharmacy [which] resulted in the formation of standardized and prepackaged medications, leading to an almost complete elimination of the compounding functions of pharmacists” (436). Rather than scientist caregivers, pharmacists were more likely to be the image that dominates to this day: white-coated technicians taking pills from one large bottle and counting them into small bottles for customers (as opposed to “patients”). Even the 1952 American Pharmaceutical Association Code of Ethics dictated that “an ethical pharmacist does not discuss with patients the therapeutic effects or composition of prescriptions” (Holland and Nimmo 1759). Ironically, then, the profession’s long quest for professional status, fueled by the refusal of the United States government to commission pharmacists as officers (as were medical doctors) during both World War I and II due to the “low professional status of pharmacists” (Higby 19), was confounded by technology and its own sense of “duty.” As Stohs and Muhi-Eldeen note, by the 1950s, pharmacists were “considered by the health care community to be more businessmen than professionals” (437).

At MCP, the emphasis of the four-year curriculum and the shift toward business education must have seemed quite attractive to its students. The college’s 175<sup>th</sup> anniversary *Bulletin* notes that in 1949, “the College graduated its largest class: 131. Their average age was 26, and they varied from 21 to 34. Fifty-nine percent were married and collectively they had 59 children. One hundred and twelve were war veterans” (41). The practice of pharmacy would ensure middle-class stability, and in the curriculum offered to get students to that point, first-year English was the primary place where students received in-



struction in writing—long removed from required dissertations written for prizes and publication and presented in public forums and from required written examinations in every course. This instruction largely fit David Russell’s characterization of WAC efforts in the early 20th century:

Students would learn to write for everyone in general and no one in particular (except the individual teacher). Writing would remain a way of demonstrating learning, not acquiring it. And writing would be a low-level, mechanical skill, unworthy of attention at higher levels of education—except through remedial measures. (143)

At MCP writing instruction might have occurred in other parts of students’ curriculum, but this was not trumpeted in public forums. We have to fast forward to a more modern era to find evidence of WAC and writing support and to understand the roots of current attempts to instill writing as a means of learning in the curriculum of MCP.

### **1970 to Now: The Rise of Pharmaceutical Care**

In recent times, one factor that has possibly mitigated the use of writing in all parts of the curriculum has been, ironically, the proliferation of liberal arts courses, particularly as the college went to a five-year B.S. in Pharmacy curriculum in 1960 and then a six-year PharmD degree in 1997. Housed in a separate division for many years (and now part of the more comprehensive School of Arts and Sciences), liberal arts courses were where students did the bulk of their writing (and a recurring issue in the College’s *Bulletin* has been the need to make an argument for the importance of this education at a professional college). It is easy to imagine that while many might have seen the liberal arts curriculum as essential, the “separateness” of these courses could, at the same time, mark them as *the* place where students wrote, not in their courses more obviously related to pharmacy. These factors also play into what one current faculty member calls “the professional-school mindset” where non-science components of the curriculum are not privileged and where “writing is not something we do.”

Some WAC efforts have been by top-down mandates of sorts. For instance, in 1979 the Curriculum Committee issued the following recommendation:

The Committee voted to investigate the question of a competency exam in written communication. Faculty are requested to incorporate into their courses as many written and oral requirements as possible. Faculty teaching in the freshman year may wish to investigate combined paper assignments with freshman English.

This statement appears again in the notes from a meeting the following year though action on a writing competency exam was tabled indefinitely and the “request” for all faculty to include writing in their courses was never specifically detailed, an omission that perhaps ensured the failure of this effort.

More recently, the 1979 Curriculum Committee’s discussion of a competency exam has been realized as a Writing Proficiency Exam (WPE) for students who have completed the two-semester composition sequence and for transfer students with credit for expository writing. Just as in the institution of required freshman English, perceptions of a “crisis” in student writing skills gave rise to curricular action. In the mid 1980s the college’s population of non-native English speakers increased dramatically (currently, approximately 30% of the student body), as the profession of pharmacy became (and still is) one of the few remaining fields whereby a college degree will ensure economic stability and immediate ascendancy into the middle class—entry-level pharmacists earn about \$65,000 per year. Instituted in 1991, the WPE is an attempt to ensure a minimum level of competency in writing a specific task: an argument essay based on four articles students receive in advance. On average, 20% of the students do not pass this exam and they then must take an additional composition course, and the vast majority of these students are ESL.

In a larger context, the focus on writing/communication abilities as essential to pharmacy professionals has been fueled by the concept of “pharmaceutical care.” Hepler and Strand defined this concept in 1990 as “the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve the patient’s quality of life” (qtd. in Holland and Nimmo 1760). Thus, pharmacists are returning to their “traditional” role in offering specific medical advice to patient/customers, and their work lives—particularly in clinical settings—can be quite writing intensive. Kennicutt, Briceland, Hobson, and Waite have identified 25 discrete writing tasks performed by “clinical clerkship preceptors who practice in diverse settings representative of contemporary clinical pharmacy practitioners” (1200). The emphasis on pharmaceutical care and the proliferation of pharmacists in hospital and other clinical settings have meant consider-

able reform in pharmacy education. Stohs and Muhi-Eldrean describe this change as a shift from “a science- and laboratory-based educational experience to an educational process which is a balance between a sound scientific background and a patient, case-oriented approach to education and the associated skills which are required” (437). WAC-related activities fit well with the language of accrediting bodies, which has described curricular outcomes of critical thinking and collaborative decision making (Commission to Implement Change).

It is encouraging to those of us working in this field that many colleges of pharmacy are adopting WAC practices. For example, the St. Louis College of Pharmacy features a “writing center-based, writing across the curriculum program” with a Writing Emphasis (WE) course requirement, and the more than 20 WE courses include “Topics in Therapeutics,” “Biomedical Ethics,” and “Geriatric Pharmacy” (Hobson and Lerner). The University of Toledo has published a sourcebook on WAC in pharmacy education (Holiday-Goodman and Lively; Holiday-Goodman, et al.), and writing centers have been established at the Philadelphia College of Pharmacy and at the Albany College of Pharmacy, in addition to those at MCP and St. Louis. Additionally, the literature on writing in pharmacy education has continued to grow (e.g., Hobson; Hobson and Shafermeyer; Prosser, Burke, and Hobson).

Thus, for my role at the college, the move toward pharmaceutical care offers justifications for WAC efforts that can be quite powerful, along with the usual arguments for writing as a component of sound pedagogy. Still, after nearly five years on the job, I have found that writing exists in only limited pockets of instruction outside of required first-year English. The struggle between pharmacist as scientist/practitioner and pharmacist as skilled communicator/health-care provider is not necessarily resolved, despite accrediting recommendations and the perceived needs of working professionals. As is true with most WAC efforts, change is slow to take hold, and a varied faculty’s time and energy seem precious quantities. I am heedful of Fulwiler and Young’s observation of the “enemies” of successful WAC programs:

Many faculty are apathetic, others insecure, even hostile, to any program that offers to assist them with their teaching. They see such efforts as a subtle indictment of their current teaching and feel threatened by any attempt at collaboration centered on teaching. . . . Similarly, many students feel threatened when writing is introduced into a course. It is an unfair obstacle to getting the desired

grade and an odious interruption in their career training.  
(293)

Nevertheless, while it seems a great distance from those nine graduates in 1869 writing their theses in longhand to the current graduates who have no such requirement, the history of my college shows that writing as a means of learning and as an essential part of a health-care professional's identity is not a new concept. The force of professional change, if the concept of pharmaceutical care really does take hold as predicted, is quite powerful, particularly as future college leaders draw upon their experiences as students and professionals to ensure that MCP graduates are prepared to meet their career challenges.

### **Go Local, Go Global**

Studying one's institutional history seems relatively unexplored in our field. However, it can be a rich source of knowledge for local purposes, as well as for informing the larger field how its history might be written. The history of writing at my college provides both a cautionary tale and a measure of hope for future WAC efforts. I draw several lessons from this history, lessons applicable to other institutions, particularly professional degree programs. It is important for those with the responsibility for promoting WAC activities to be knowledgeable about a series of interrelated items: the profession's values as expressed in position papers and accreditation documents; the history of those values and a sense of their stability; the relationship between those professional values and the college/school missions statements and goals; and the opportunities for WAC to help achieve these goals. As an example of this last link, my college's mission statement describes goals of "innovative teaching which fosters student-centered learning" and "an environment which facilitates critical thinking and problem-solving skills." It is then quite easy to link writing efforts to achieve these goals and also to trace the path from these goals back to professional values and history.

We work hard in our writing programs to understand and respond to (if not change) our institution's various academic cultures. With knowledge of our institutions' histories, we are even better equipped to contribute to the teaching and learning that we would like to see occur.

**Works Cited**

- Commission to Implement Change in Pharmaceutical Education. "Background Paper II: Entry-level, Curricular Outcomes, Curricular Content and Educational Process." *American Journal of Pharmaceutical Education* 58 (1993): 533-543.
- Fulwiler, Toby and Art Young. "Afterword: The Enemies of Writing Across the Curriculum." *Programs That Work: Models and Methods for Writing Across the Curriculum*. Ed. Toby Fulwiler and Art Young. Portsmouth, NH: Boynton/Cook, 1990. 287-294.
- Higby, Gregory J. "Pharmacy in the American Century: 100 Years of Change." *Pharmacy Times* 63 (November 1997): 16, 19-20, 23-24, 26.
- Hobson, Eric. H. "Writing Across the Pharmacy Curriculum: An Annotated Bibliography." *Journal of Pharmacy Teaching* 5.3 (1996): 37-54.
- Hobson, Eric H. and Neal Lerner. "Writing Centers/WAC in Pharmacy Education: A Changing Prescription." Robert W. Barnett and Jacob S. Blumner, Eds. *Writing Centers and WAC Programs: Building Interdisciplinary Partnerships*. Westport, CT: Greenwood, 1999. 155-175.
- Hobson, Eric H. and Kenneth W. Schafermeyer. "Writing and Critical Thinking: Writing to Learn in Large Classes." *American Journal of Pharmaceutical Education* 58 (1994): 423-27.
- Holiday-Goodman, Monica and Buford T. Lively, eds. *Writing Across the Curriculum in Colleges of Pharmacy: A Sourcebook*. Toledo, OH: The University of Toledo College of Pharmacy and American Association of Colleges of Pharmacy Grant Awards for Pharmacy Schools (GAPS), 1992.
- Holiday-Goodman, Monica, Buford T. Lively, Ruth Nemire, and Joan Mullin. "Development of a Teaching Module on Written and Verbal Communication Skills." *American Journal of Pharmaceutical Education* 58 (1994): 257-61.
- Holland, Ross W. and Christine M. Nimmo. "Transitions, Part 1: Beyond Pharmaceutical Care." *American Journal of Health-Systems Pharmacists* 56 (Sept. 1, 1999): 1758-1764.
- Kennicutt, Jeffrey, Laurie L. Briceland, Eric H. Hobson, and Nancy M. Waite. "Characterization of Writing Tasks Required of Clinical Pharmacists." *Pharmacotherapy* 19.10 (1999): 1199-1200.
- Lerner, Neal. "The Institutionalization of Required English." *Composition Studies* 24.1-2 (Spring/Fall 1996): 44-60.
- Levine, David O. *The American College and the Culture of Aspiration, 1915-1940*. Ithaca: Cornell University Press, 1986.

- The Massachusetts College of Pharmacy and Allied Health Sciences. *The Bulletin* 23.1 (Winter 1998).
- Prosser, Theresa R., John M. Burke, and Eric H. Hobson. "Teaching Pharmacy Students to Write in the Medical Record." *American Journal of Pharmaceutical Education* 61 (1997): 136-40.
- Russell, David R. *Writing in the Academic Disciplines, 1870-1990*. Carbondale: Southern Illinois Univ. Press, 1991.
- Sonnedecker, Glenn. *Kremer and Urdang's History of Pharmacy*, 4<sup>th</sup> ed. Philadelphia: J.B. Lippincott Co., 1976.
- Stohs, S. J. and Z. Muhi-Eldeen. "The Transition to More Clinically Oriented Pharmacy Education and the Clinical Practice of Pharmacy." *Journal of Clinical Pharmacy and Therapeutics* 15 (1990): 435-454.