

Will the Cycle Be Unbroken? Research and Schools of Library and Information Studies

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Introduction

“UNTIL WE CAN STATE universal generalizations or laws, based on evidence and confirmable by further observations, librarianship will remain an art or a field of practice and will not be a science or a discipline.”¹ This statement and numerous others in the literature related to library research carry the assumption that librarianship would be a “science” or a “discipline” if members of the profession and its institutions would devote appropriate priority and energy toward research. One of those professing an alternate view—namely, that librarianship is by nature more art and practice than science—is Howard White.² He likens the field to journalism, publishing, law, politics, business, teaching, theater, and sports—fields that do not require a base of science in order to be practiced, but that provide the objects for research and that engage in self-study in order to improve practice. The cry for basic research in librarianship cannot be heard, he argues, perhaps because it is not there. Even Shera, one of the major proponents of research in librarianship, grants that, “research, important as it is, is not the be-all and end-all of life, or even of professional life; and every librarian does not have to be a ‘researcher’ in order to prove the vitality of the profession.”³

The most balanced assumption, given the evidence so far, is that research on library matters will at best help build a more solid base for

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the practice of what will forever remain an art. The art will be improved, not supplanted, by science, no matter how passionately the field might embrace research; and the art will remain the dominant force in the field, not because the artisans will win a political victory over the researchers, but because the field is and will continue to be essentially the practice of an art. In the face of a literature that seems universally to call for research in the scientific mode and that often envisions the transformation of the field from an art to a science, one cannot overlook the actual relationship of art to science. That relationship is one of dynamic tension. It is inherent to the field and is not simply the result of political, economic, or personality struggles among the human proponents of art and science. The dynamic tension should be recognized as natural, as well as man-made, and a consideration of the role of library and information science schools in research must acknowledge both aspects of that tension, for the two have undoubtedly helped shape the role and effectiveness of library schools in research. Nevertheless, it is inconceivable that maximizing the quality, the amount and even the impact of the schools' research activities would change the field from an art to a science. The best to be hoped for is that the field would be transformed into an art vigorously supported by science.

Library Schools as Producers of Research

A base of theoretical knowledge is commonly deemed a requirement of a true profession, and advancement of that knowledge is deemed a requirement of the academic units that serve that profession. At the same time, the field of practice requires the preparation of individuals for entry into a specific occupation and one that is institutionalized. Thus, training in the specific arts of librarianship—as opposed to educating in the broader knowledge of the field—is required to produce a graduate who can be useful, practically, on or shortly after the first day on the first job. As well, the library school is expected to educate in the broader knowledge of the field so that its graduates also have the conceptual bases and scope needed for growth in the field. Finally, service to the profession and to the academic unit is generally considered a standard role of a library school.

Research, training, education, and service are all required for the “success” of a professional school in an academic environment. Yet even within the academic environment there is inherent conflict among the four elements. The tension between art and science in the library field is manifested more specifically in the tensions between training

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(practice) and education (knowledge), service (practice) and research (knowledge). More time for one is less time for another, and decisions of individual faculty members reflect their priorities for one or the other of the four activities.

Much of the writing on library research and library education has concentrated on the United States or on North America. Over the years, numerous writers have asserted the need for more research activity in library schools, claiming that it helps build a knowledge base for the advancement of the field, for sound application, for acceptance of the schools themselves within the larger academic institution, and for securing librarianship's place as a legitimate profession.⁴ Other writers assert that practicing libraries need to (1) engage in more research, and (2) understand and apply more research findings for many of the same reasons—to broaden the field's knowledge base, to establish sounder practice, to secure the professional school within the academy, and to mark the field as a profession. Some assert that library educators and library practitioners must work together: Katz concludes that an orderly and cumulative approach to library research will not occur until "there is a systematic linkage of library education with practitioners";⁵ and Morehead argues that a participant-observer approach, with library educators making the library workplace a classroom, could eliminate the training/education and, by implication, the art/science tensions that plague library education and the field in general.⁶

The totality of such recommendations would have an impact on the field and its members in several ways. The time that library school personnel devote to research would have to be expanded, their research skills improved, and their passion for research fostered. Library school curricula and continuing education programs would need adjustment, in order to foster in the new entrant to the profession and in the mature professional the skills and attitudes necessary to apply and conduct research. Additional fiscal support would be needed from academia, from institutions of library practice, and from governing/administrative bodies concerned with library advancement (such as state libraries, federal support units, and municipal officers).

Faculty Output

The research output of faculty in library schools has been frequently criticized in the literature, and virtually all attention has been focused on North America and, particularly, on the United States. Several investigators have produced data indicating that the research

productivity of library school faculty is less than desired. Lane studied the productivity of persons with earned library science doctoral degrees and found that about 50 percent of them had produced less than one single-authored publication every ten years after receiving the degree. On the face of it a bad showing; but Lane goes on to report that the overall publication record of library doctorates falls within the normal range for other disciplines.⁷ (On this point, Wilson expresses doubt about the validity of Lane's method.⁸) In their study of faculty production, Herbert White and Karen Momenee found that post-doctoral production of published research reports averaged less than one per year.⁹ Ruth Katz, as a small part of her doctoral thesis, found that fewer than half of the responding faculty indicated that they had made any attempt to seek research funding.¹⁰

The quality of research produced by faculty has been criticized. Fry and Shaughnessy agree that the field in general and library schools in particular engage in applied research, to the virtual exclusion of basic research, and that too little of the research is generalizable.¹¹ If this is true for studies that carry the formal stamp of "research," it is surely true for studies that occur as part of consulting assignments where the purpose is to identify and resolve a problem in a specific application. Fry further claimed that much of the research in the field is characterized by primitive methodology, sampling and conceptualization. Both authors take the researcher and faculty members to task for not communicating the results of their research adequately.

Appreciating the importance of research activity to the field and, particularly, to the faculty's status in the university setting, Wilson offered a sketch for a research program *about* faculty research in library schools.¹² Although such research may be considered to be so much professional navel-gazing, in a class with studies of notable librarians or professional educational practices, it would have far-reaching effects. If followed, her prescription for a multiphased, multifaceted investigation of research production would give the field a baseline of data from which to evaluate faculty and school performance and would contribute to an improved research climate in library schools and, ultimately, to more research activity.

A number of authors have claimed that the field of librarianship operates without the "research front" that is required for steady advancement of the field through orderly scientific inquiry. That is, research activities in the field are fragmented—relatively unrelated to each other—and therefore not conducive to cumulation and the building of ever deeper knowledge. The knowledge that accrues from the

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research tends to be spotty and shallow. Katz's data provide the most compelling evidence that library schools generate a body of research that is noncumulative and episodic.¹³ Houser and Schrader's study of research in library schools—despite conceptual and methodological problems in that work—lends some empirically derived support to such claims.¹⁴

Factors Affecting Faculty Research Activity

Pauline Wilson offered an eloquent argument that the library school faculty is not exempt from the obligation of all academic units to produce research.¹⁵ Research, after all, carries several benefits—it creates new knowledge, reapplies old knowledge, brings honor to academy and researcher alike, attracts higher quality faculty and students, improves teaching by providing new knowledge bases, and contributes to the general intellectual growth of the researcher. We might add the commonly noted benefit—it improves practice.

Nonetheless, it appears to many writers that research activity by library faculty occurs with too little frequency and at too low a level of quality. Why is it that "science" has come out the loser in the science-art tension? Buckland argues that one reason is a concentration, in the schools' research activities, on development rather than research:

Within research and development, there is a heavy emphasis, characteristic of the field as a whole, on demonstration and development (seeking how to get things done better) rather than basic research (seeking to understand things better). To engage in basic research in a professional school is to risk outside criticism concerning "ivory towers."¹⁶

Viewed broadly, it may be that the schools have been busy responding to the very real, practical needs of the profession (getting things done better) and have thereby deemphasized the search for larger understandings. This, in turn, may be reflected in teaching and in the schools' concern with training (doing) rather than education (understanding). At any rate, educators seem to place less importance on research, and especially on basic research, than on other things.¹⁷

In a fairly recent study of deans and directors of library schools, Kingsbury sought to identify the importance of various criteria for evaluating faculty performance. She then compared their ranking to the rankings given by heads of professional schools and social science departments in a prior study. Interestingly, the rankings by the three groups are roughly similar. All see *teaching* as currently most impor-

tant followed by “*quality of publications, personal qualifications for the job*” and finally, “*research or creation independent of publication.*” Asked how it *should* be, respondents would generally hold the criteria at about the same rank, with those in library schools and professional schools placing “*research or creation independent of publication*” above “*personal qualifications*” in importance.¹⁸ It is important to note that the subjects of the study were administrators of library schools, not the faculty themselves; and that the importance of the research criterion may be higher among the administrators than it would be when polling all of the faculty. Katz, when comparing the attitudes of the faculty of library schools with the faculty of schools of political science and social science, found that the library school faculty consistently gave research less importance.¹⁹ It would seem, as Wilson claims, that library school faculty are not fully socialized into their role as the academic segment of a profession and as university faculty—that, rather, they play the role of professional librarian, rather than professional academic.²⁰

The most comprehensive treatment of factors relating to the presumed low level of faculty research production has been generated by Wilson.²¹ Drawing from her investigation at the University of Tennessee, she proposed an “abstraction,” or tentative model, by which barriers to faculty research in individual library schools could be identified. The model includes the following barriers or elements that compete with research activity:

1. Time-related barriers
 - a. Professional service
 - b. Continuing education
 - c. Current awareness needs in teaching
 - d. Lack of a pool of trained graduate assistants (since there is no undergraduate corps with prior exposure)
 - e. Small scale of library schools and resulting need for larger
 - f. Provision of one’s own support service (typing, data entry, etc.)
2. Funding-related barriers
 - a. Reduced levels of funding available
 - b. Scattered and elusive sources of funds
 - c. Federal or state funding priorities that are in disaccord with the faculty member’s research interests
3. Personnel-related barriers
 - a. Lack of research training²²
 - b. Lack of research interest²²

Wilson goes on to propose some rather concrete solutions to the barriers

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that could be applicable in various situations: (1) make the teaching activities more efficient (teach fewer classes more often, cluster teaching hours, reduce preparation time by involving outside resources such as speakers or films); (2) eliminate professional service except that relevant to the researcher/educator role; (3) provide support for research, such as released time from teaching, graduate assistants, secretarial help, and money; (4) anoint the unanointed, by training them in research methods or involving them with others who are doing research.

Student Research Output

Over the past two decades considerable change has occurred in the area of doctoral study. Since the Ph.D. degree is almost universally considered to be a “research” degree, it almost universally culminates in a “research” product—a thesis or dissertation. While there is some difference of opinion as to what constitutes “research,” the numbers of doctoral degrees issued could be seen as a rough measure of the quantities of doctoral research being produced. One recent perspective on the doctoral count was reported by White and Momenee in 1978. They observed that the cumulative total of doctorates awarded between 1930 and 1950 doubled by 1959, doubled again by 1967, again by 1973, and was expected to double again by 1980 or 1981.²³ More recently, Schlachter and Thomison have reported the average number of doctorates related to library and information studies completed annually. They identify four eras and their annual production rates: 1925-1955 (4.45); 1956-1969 (21.64); 1970-1972 (73); 1973-1981 (111).²⁴ Whether or not the rapid acceleration through 1981 is continuing, it is clear that the numbers of doctoral research products have increased dramatically since the 1940s. This is echoed by the fact that twenty-four North American schools currently are listed as offering the doctorates; in 1970 that number was eighteen.²⁵ As a gross count of activity on the research front, these figures give reason for some elation—more research is going on.

We might expect the increased quantity of research to carry with it some improvements in quality, for we might expect *doctoral* study to be more often than not the most rigorous and innovative research in the field. Doctoral study, not being driven by administrative or operational necessities, should have the “luxury” of being research that is more basic, rather than applied, and more exploratory, rather than prosaic—in short, more risk-taking. It is in the body of doctoral research, if nowhere else, that the field should find research that explores new disciplinary frontiers or new research methodologies. It is doctoral

studies that should treat methodology and content most rigorously.

Doubt is cast on such expectations by White and Momenee, who indicate that only 22.6 percent of the doctorates claim to use even partially experimental methods, while more than 32 percent used historical methods.²⁶ Settingington, in his analysis of doctoral theses on library and information management, decries the “overwhelming preference for descriptive surveys rather than methodologies normal to administrative research”—i.e., case study, theory testing and model construction. He goes on to conclude that there are no “star” thesis supervisors in the library management area—no concentration of supervising activity—that the field has achieved no locus of excellence in the production of library management theses.²⁷ Shaughnessy has indicated that, of the 139 doctoral research products in library science listed in *Dissertation Abstracts* from 1972-76, “the great majority, 113 or 81 percent, are heavily oriented toward practice, application or problem solving. Only about twenty-six could be categorized as basic research.”²⁸

One might reasonably speculate that research in the field at large is even more appropriate for these criticisms. Moreover, the increase in doctorates as a predictor of increases in research in the field, generally, does not give cause for joy. That is, the increase in the number of people holding the doctorate has not necessarily brought with it a concomitant increase in the number of research efforts. Over 60 percent of the holders of doctorates in the field have indicated that they have not published any research findings since acquiring the degree. Several authors have advanced explanations for such findings; stated most broadly, the holders of doctorates seem to be simply “not interested enough,” for a variety of reasons.²⁹

It is safe to assume that, when little doctoral research was going on (through 1955), a significant portion of research in the field was being generated in the form of masters’ theses. However, as long ago as the early 1950s, dramatic changes in this situation were taking place, and it is probably no coincidence that doctoral theses were increasing at this time. One can speculate that as schools developed Ph.D. programs, they became aware of the comparatively lesser quality of master’s research, the increasing struggle to find topics suitable for master’s research, and the excessive faculty energy required to maintain a research program for all master’s students; and, therefore, the required master’s thesis was abandoned. To support our speculation, Douglass found that the ratio of graduates to master’s theses in that period had increased from 2.6 graduates per thesis to 6.8; and Walker reported that, for the same period, the ratio in schools with doctoral programs had increased even

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faster.³⁰ In 1968, McMullen identified trends through observation of program offerings:

(1) In library schools where the writing of master's theses is optional, almost all students choose not to write them. (2) Schools which continue to require theses of high quality have small student bodies. And (3) one or two schools which have kept the requirement are unusually permissive about the type of work done, accepting bibliographies and indexes which probably would not qualify as research in other institutions.³¹

Currently, only twelve members and associate members of the Association for Library and Information Science Education, out of seventy-five responding, require master's theses.³² Thus there is relatively little mandating of serious research effort as part of the master's degree. Is the profession saying that the thesis experience (commonly a serious research undertaking) is not of universal value to all students—as a pedagogical device—or that it lacks value for the field as a source of research findings?

Schools as Research Educators

In addition to their role as a generator of research products, schools of library and information science assume the job of educating people in research. A number of writers propose two major ends for teaching research—so the student may perform it, or so the student may apply it. A third end for teaching research emerges in some expository writing. It is exemplified by Rayward's statement that, in the process of transmitting knowledge about research, the educator must also “inculcate certain critical, questioning attitudes towards this knowledge and its practical deployment.”³³ So we find three major objectives for educating people in research—doing it, applying it, and embracing a critical attitude. However, “library education has yet to provide most students with adequate knowledge of research methodologies and has not been successful enough in encouraging future librarians to cultivate a productive, critical attitude toward many existing library principles, policies, and procedures.”³⁴

This quotation is not an uncommon polemic in the professional press. Few people have indicated that enough of anything has been taught in the profession's schools—be it management, reference tools, communication skills, or research methods. The indictment against education in research is sometimes (as in this case) based on personal experience and insight, rather than on systematic study. However, there

are some studies that lead to the same conclusion—that the people who enter the library and information science profession are less than optimally skilled in and oriented to research.

A Delphi study conducted in 1975, probing the future of library education, shed more systematic light on the subject. It was found that 82 percent of the respondents (opinion leaders in library and information science) felt there should be more active involvement by faculty and students in research and evaluation projects. Over 60 percent agreed on the need for required courses in statistics at the master's level.³⁵ Some inconsistency in the attitude of faculty toward the teaching of research is evident in findings from a 1967 survey of library school faculties. It was found that, while 87 percent of the respondents actually offered a course on research, only 57 percent favored doing so. The study also revealed a relatively even division among respondents in terms of their avowed *objectives* in teaching research. Thirty-two percent emphasized teaching research so the graduate could *conduct* it; 32 percent emphasized teaching research so the graduate could *evaluate* it; and 28 percent taught it for both reasons equally.³⁶ The profession's educators did not overwhelmingly support the teaching of research, and the field was fairly evenly split between the two major purposes for teaching it—literacy/use and conduct of research. There appeared to be ambivalence in general devotion and in purpose. These data are seventeen years old, and the professional literature has frequently expressed hope that the research milieu and attendant attitudes have changed since then. Yet, one can look to the writings of many of those cited in this paper for indicators—admittedly, many are based on soft, rather than hard, observation—that things may not have changed much.

Schools, Research and the Profession

Buckland claims that, as library and information schools “mature,” or become more fully part of the academic, as opposed to the professional, community, the relationship between the forces of education and practice will worsen.³⁷ The dynamic tension that has been decried for decades by scores of writers will increase, as the faculties increasingly prefer academic over professional affiliation and thus, presumably, research over field-based activities.

The gulf between the domains of education/research and practice has been much written about. Recently, De Gennaro repeated his admonition that, “there is a big difference between theory and practice, thought and action.”³⁸ While not denying the value of theory outright

(and research, could we assume?), he does question its utility for the practitioner. Indirectly, he seems to support others' contentions that the domain of practice is anti-empiricist (not anti-intellectual) and that the lords of that domain are not interested in building understandings larger than their own individual libraries or in putting research findings to practical use.³⁹

Although he sees the tension between practice and academe intensifying, Buckland is cautiously optimistic about library and information educators' eventually donning the robes of faculty and bona fide researchers.⁴⁰ Yet, one could argue, until library and information educators are secure in their roles as academics, they will necessarily take significant cues for their behavior from the much larger forces of the practitioners. Those cues would encourage them not toward performing basic research or achieving larger understandings, nor toward producing graduates who are research-literate, research-skilled and critical; but toward addressing problems specific to a given library's technologies—hard and soft—and toward producing graduates armed with skill in those technologies rather than with understanding or breadth in the matter of librarianship. This is not to gainsay the need for people who can drive the technologies of libraries, but to say that concern for the technologies can continue to undermine concern for the larger understandings. Wilson and Katz underscore the need for the educators in the field to assume, on behalf of the profession, the role of builders of larger understandings.⁴¹

Overall, the literature conjures up a cycle of relationships. The field of practice insists that the schools concern themselves with solving the local and immediate problems of practice; the educators/researchers in the schools and the people who manage the schools have commonly worked in library or information practice and are sympathetic to solving such problems. The educators/researchers—being only modestly educated in research methodology and not especially keen on doing research in the first place—convey neither the cognitive nor affective elements required to imbue a student with the research method and the research spirit. Those potential students at both the doctoral and the master's levels who are inclined toward rigorous inquiry—not seeing faculty nor a line of research that might satisfy these inclinations—look to other fields; and the field continues to attract students with interests primarily in the technologies of the profession and secondarily in building larger understandings. New graduates evolve into the practitioners and continue, naturally, to influence the educators/researchers, in the pattern of their predecessors.

The cycle depicts the interrelationships of education, research and practice in the field today. As with any model, it is exaggerated. Sadly, it may not be very much so. From the point of view of reform for the field, it is certainly grim. Inasmuch as it is a social cycle composed of social elements, it seems fairly safe to say that the cycle will evolve slowly, if at all; and that what we see today is probably what we will get for many tomorrows.

Yet there are forces for change. Elements of the profession's infrastructure have been working to improve the research picture. The Association for Library and Information Science Education has a record of concern with promoting research activity among library and information educators, through awards, conference programs, and research presentations. The Library Research Round Table of the ALA has, since its inception, promoted the conduct and use of research. Perhaps its most vital impact has been to bring educators who are doing research into contact with practitioners who might apply the research. The dialogue that has ensued is one of the most promising developments in building a healthy relationship between research and practice. *Library and Information Science Research*, a journal devoted to research in the field, has been published since 1979. It seems firmly established (compared with previous attempts at research journals or newsletters in this country) and has become one of the highest-quality journals in the profession.

Conclusion

On the other hand, certain erosions in recent years may indicate diminished research intensity in library and information schools. Funding for research under Title II-B of the Higher Education Act has fallen steadily since the early 1970s; while some other money continues to exist at the federal level, much of that money is available only for specified projects or is administered under grant programs for which there is broad competition from many different fields (e.g., the National Science Foundation). In recent years, much of the reduced federal "research" money has been going to research and development firms rather than universities, thereby reducing the potential support of academic research programs. The research bureaus that once seemed to be increasing as formal focuses for research in library and information schools appear to be on the wane. The Library Research Center at the University of Illinois continues, with vigor; others, such as Rutgers', have disbanded or operate at relatively low levels of activity.

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One is led to believe that a number of simultaneous actions must be taken to improve the state of research in library and information schools and to heighten the impact of that research. To a large extent, the actions are intended to improve the condition of the tension between art and science or, more specifically, between practice and academic research—i.e., research performed by academics: (1) The infrastructural elements that support communication between researchers, especially those in library and information schools, and practitioners must be continued and strengthened, through activity such as that of the Library Research Round Table and through publication activity that supports basic research and draws research and practice together. (2) The availability of money dedicated to basic research and to research that is not dictated by the immediate needs of practice must be increased. (3) Faculty must become unapologetic about their role as the builders of larger understandings through teaching and research. (4) A reward system must be instituted in the field of practice that encourages the use and, perhaps, the conduct of research. A concomitant attitude must be fostered in all practitioners so they value research as a basis for improving the art of library and information practice. (5) Schools must assure basic research “literacy” in all graduates. (6) Organizational elements that foster research in library and information schools and link research to practice must be developed or improved: a more formalized and active research focus in the schools, such as the Library Research Center at Illinois, or the Public Library Management Research Unit at Leeds Polytechnic in England; a reward system that demands research activity and the communication of research to people in practice should be developed; and a system of faculty time allocation and faculty support that make research activity possible. (7) Research education for doctoral students must be more rigorous, and recruiting and screening of doctoral applicants should ensure their dedication to research. This will likely require the use of faculty from outside the tradition of library and information research and education.

It is not proposed that such actions would eliminate the tension between the forces of practice and academic research for, as was pointed out at the beginning of the article, that tension is natural in a professional field. Nor can even the complete realization of a vital research program transform the field from an art to a science. Instead, these efforts may render the inevitable tension functional, rather than dysfunctional, so that practice seeks to be informed by academic research, so that practice provides a friendly locus for academic research, and so that library and information schools produce graduates who are attuned to

applying research to practice. These goals are haunted by a few worrisome questions: Can the profession and its schools alter their long-standing pattern of, at best, uneven interest in research, undistinguished research quality, and relatively low numbers of research products? Can practice and academe interact constructively on a wide scale, rather than merely defending their respective turfs? Will the static cycle envisioned earlier remain unbroken, or can the field—academics and practitioners alike—accept the need for improvement and take up the challenge to change?

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