© Academy of Management Learning & Education, 2010, Vol. 9, No. 1, 132–143.

The Research–Teaching Gap in Management

LISA A. BURKE
University of Tennessee at Chattanooga

BARBARA RAU
University of Wisconsin, Oshkosh

Although other authors have recently spotlighted the research–practice gap in management, we suggest the role of teaching in eliminating this fissure has been neglected. We examine the research–teaching gap in management by exploring how research can inform our teaching and how teaching can enlighten our research. We also advance practical implications for addressing the research–teaching gap in our field. Ultimately, we believe a tighter link between research and teaching is critical to enhancing student learning about the value of research and to giving them—our future managers—the skills they will need to be lifelong consumers of management research.

Writers have increasingly acknowledged the research–practice gap in management (Bennis & O'Toole, 2005; Mintzberg, 2004; Pfeffer & Fong, 2002; Rynes, 2007; Rynes, Bartunek, & Daft, 2001; Rynes, Giluk, & Brown, 2007) and raised our general awareness of its severity. Indeed, a significant portion of a recent issue of *The Academy of Management Journal* was dedicated to examining the research–practice gap (*AMJ*, 2007) and laying out various possibilities for bridging the gap. The glaring omission from these discussions is the role that teaching and research *together* play in creating, and, we hope, ultimately narrowing the gap. As Cohen (2007) claimed, the educational route to closing the research–practice gap has been dismissed by other writers too quickly. We agree and believe not only that this route is necessary, but also that it is of great importance to addressing the research–practice gap. Strengthening the teaching–research nexus holds vast potential to deliver not only the skills needed to understand research to upcoming generations of managers, but also to instill values that recognize the validity of research.

It is likely that the size and causes of the teaching–research gap vary based on the relative emphasis on teaching versus research across business schools; for example, the gap may be wider in teaching schools than research-intensive schools. Yet any gap can be narrowed to some extent. Ultimately, greater integration of the research and teaching roles of management faculty can produce a heightened student awareness and value of research at all levels of management education, enhance evidence-based management practice in the workplace, and facilitate the creation of more useful management research.

Figure 1 illustrates the reciprocal relationship among management research, teaching, and practice and how the linkages have been addressed thus far in the literature. Recent focus especially by Rynes and colleagues (Rynes, 2007; Rynes et al., 2001; Rynes et al., 2007) has largely concentrated on arrow A, or the unidirectional influence (or lack thereof) of research on practice—specifically, how management research can be made more accessible, understandable, and relevant for practitioners. Arrow B reflects the influence of practice on research, including how practitioners can be more involved in contributing and coproducing research ideas, how researchers can engage in more effective relationships with managers, and how researchers can engage in practice themselves such as in consulting (Bartunek, 2007; Bennis & O'Toole, 2005; Hinkin, Holtom, & Klag, 2007; Oviatt & Miller, 1989). Arguably arrow C encapsulates much writing in *The Academy of Management Learning & Education* (*AMLE*) journal and related outlets that explore how executive, MBA, and undergraduate management teaching can better produce informed, thoughtful, effective managers. Arrow D illustrates the understudied direct influence of

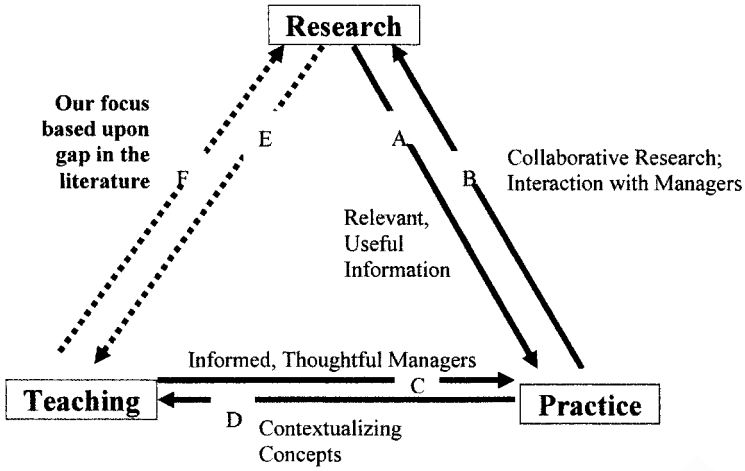

FIGURE 1
Gap in the Management Literature

practice on teaching, or how instructors and students can contextualize concepts to make management theories more useful for practicing managers (Vroom, 2007). The dotted lines in Figure 1 represent the gap in the literature and focus of our essay, that is, the reciprocal relationship between management research and teaching.

Some prior research does not incite optimism about the extent to which research and teaching synergy has been (or can be) achieved. For example, in their study of the research–teaching link, Marsh and Hattie (2002) concluded, "It is important not to perpetuate the myth that there is a positive and reciprocal relation between teaching and research. There is no doubt that many would like such a positive relation to be true . . ." (631). Thus, currently, a strong positive research–teaching nexus is best described as an ideal or a desired state—something to work toward, rather than something that occurs naturally. Yet the ability to successfully integrate research and teaching is arguably the essence of what it means to excel as a university professor. Thus, it is important for management educators to figure out why the relationship (between research and teaching) does not occur spontaneously and what we can do about it. We believe that progress toward closing the research–practice gap will be a byproduct of addressing this fundamental issue, as students equipped with the latest knowledge in the field, and more importantly with skills they need to be enduring clients of management research, can better identify and evaluate appropriate interventions in response to managerial challenges. Next, we examine the literature to discern how research can inform our teaching in management education (i.e., arrow E in Figure 1).

How Can Research Inform Teaching?

For too long, research and teaching have been ineffectually segregated (Dawson & Burke, 2008; Jenkins & Zetter, 2003) even though each role mirrors the learning process (Brew, 2003). Learning involves a modification or increase in knowledge—something both research and teaching processes accomplish through assessment of a current question or person's state of knowledge, exploration of phenomena, and revised interpretations, implications, or reflections based on the new knowledge generated. When research and teaching are both viewed as learning processes, it is easier to conceive at least conceptually how they can and should be mutually reinforcing (Brew, 2002, 2003). In other words, as Becker and Kennedy (2005) advanced, "imparting knowledge and creating knowledge are complementary activities" (172).

Consistent with Brew's focus (1999, 2002, 2003) on strengthening the research–teaching link, Dawson and Burke (2008) proposed the pursuit of *research-inspired teaching*, instruction that draws upon and is grounded in relevant discipline theory and research, which in turn supports evidence-based practice. Fukami (2007), in a related way, discussed the concept of "scholarly teaching," whereby faculty stay abreast of and share the latest ideas in their discipline, are reflective, and pursue evidence gathering. Granted, some have argued that specific teaching points are hard to locate in much of management research, which can be esoteric and irrelevant (Markides, 2007; Mowday, 1997; Weiss, 1983). Nonetheless, by incorporating existing research evidence in our teaching, we help set the stage for increased student learning and use of evidence-based practices by managers. Thus,

research-informed teaching should result in faculty members who convey the latest field knowledge, intellectually stimulated students, and well-equipped individuals entering the managerial ranks who can thoughtfully propose effective interventions and the means to assess them. These professionals would be expected to have a greater ability to distinguish good research from bad and hence be less likely to dismiss research as biased, irrelevant, or too difficult to understand.

Incorporating Research Evidence in Teaching

According to Kaplan (1989), "each of us as teachers has a responsibility to introduce students to relevant, newly developed ideas if future practice is not to be just a repetition or simple extrapolation of the present and past" (130). Although empirical data about the extent of research infusion into the teaching arena are lacking, some authors seriously question the extent to which discipline research infiltrates business teaching (Kaplan, 1989), while others believe it is more common (Markides, 2007). Regardless, research-inspired teaching involves at a base level the transmission or dissemination of foundational management paradigms and established empirical findings. But the question remains: What is there to share?

Lemak (2004) usefully suggested how management instructors can present and discuss the primary paradigms in our discipline (i.e., classical, behavioral, systems) and frame classroom discussions (at the undergraduate and MBA levels) of these paradigms in terms of various managerial roles. While paradigms underlying our discipline may be fairly easy to distinguish and thus inject into the classroom, established evidence-based management principles may seem elusive. However, there is increasing work documenting evidence-based management practices (Rousseau, 2006; Rousseau & McCarthy, 2007); syntheses of established management findings (Rynes et al., 2007); and several wide-ranging and user-friendly practical summaries of empirical evidence in our discipline (Eichinger, Lombardo, & Ulrich, 2004; Ulrich, Eichinger, Kulas, & De Meuse, 2007). Research-grounded textbooks (e.g., Bell, 2007, on diversity) can also be useful in teaching specific topics as well as meta-analyses, such as Cawley, Keeping, and Levy (1998) on performance-appraisal participation; Colquitt, LePine, and Noe (2000) on training effectiveness; and Zhao, Wayne, Glibkowski, and Bravo (2007) on psychological contracts. Finally, studies in human resource management reveal the knowledge gap of practitioners about research findings (Hutchins & Burke, 2007; Rynes, Colbert, & Brown, 2002). Given this growing body of work, management instructors have some valuable information to share with students in management courses. Most students do not know of these findings; learning about them could help to increase the use of research-grounded management principles in the workplace.

In research-inspired teaching, management faculty share their own research studies, findings, and work, when relevant. According to Markides (2007), "If you have communicated some of your research findings to your students, then by definition you are doing managerial relevant research" (765). Studies have documented that students perceive benefits associated with faculty who conduct research and that motivated students in particular value those teachers engaged in research (Jenkins, Blackman, Lindsay, & Paton-Saltzberg, 1998; Lindsay, Breen, & Jenkins, 2002). It is not difficult to conceive that students would perceive research-active management instructors as knowledgeable of changing management practices, evidence-based management practices, and counterintuitive research findings. Moreover, based on our personal experiences, the process of sharing one's own research is intellectually stimulating and invigorating for the instructor; this energy transfers to students via more interactive discussions about organizational research. Last, students may also perceive that research-active instructors are capable of drawing on the cumulative research to debunk popular myths about management, such as those noted in Rynes, Colbert, and Brown (2002). It is likely that such instructors are ultimately perceived to be more engaged and engaging in the classroom.

However, the communication of research findings need not be confined to published academic studies. Both faculty with extensive consulting and applied experiences as well as adjunct instructors with rich work experiences can share findings from field projects, corporate interventions, corporate briefs they have written, or from a systematic reflection of anecdotal evidence. In other words, being thoughtful in drawing conclusions from cumulative informational inputs is not isolated to published academic works.

Actively Collaborating With Students and Teaching Research Methods

Research-inspired teaching also reframes how management instructors teach. Locke (1996) suggested the role of management faculty goes beyond disseminating management research (and producing it) to include being a facilitator in a

knowledge exchange. For faculty to facilitate knowledge exchange, management instructors and students need to work together in an inquiring and exploring fashion (Jenkins & Zetter, 2003). Classrooms in which students are asked to analyze and potentially even implement effective research procedures will likely require a less autocratic and status-based setting and instead support a more egalitarian search for answers and learning (Brew, 2002; Dawson & Burke, 2008).

Within this context, one can envision a curriculum that makes widespread use of or requires multiple course research projects and theses at all levels of management education; research methods classes in all business majors (not just marketing); elective courses tailored to faculty research interests; increased opportunities for undergraduate and graduate research assistantships; research skills learning objectives across all courses; development of a research portfolio by each student, or assessment of graduating students' research skills and knowledge of evidence-based management practices. In pursuing a research-across-the-curriculum approach, we can create graduates who are better managers because they understand and know how to use research as well as how to evaluate workplace interventions.

In pursuing a research-across-the-curriculum approach, we can create graduates who are better managers because they understand and know how to use research as well as how to evaluate workplace interventions.

Getting students and other stakeholders' support of such ideas could be eased by articulating how students' research training, skills, and knowledge support their employability in the workplace (Jenkins & Zetter, 2003). Advisory board members could be engaged in advocating the need for stronger intellectual skills of analysis, synthesis, and research (Brew, 2003; Watson, 1993) in a knowledge-based workplace and society. Business students could also be encouraged to create research portfolios for on-campus job interviews to demonstrate their acquired competence in applying evidence-based management principles.

Transitioning to a more direct and supportive linkage between research and teaching has—somewhat paradoxically—been found easier for master's level universities to facilitate than doctoral institutions (Colbeck, 1998). Colbeck suggests this is the case because in the former, all of Boyer's four types of scholarship (1990) are more widely accepted, including scholarship of discovery (basic research); scholarship of teaching (pedagogical research); scholarship of integration (synthesizing what has been discovered to provide a more comprehensive understanding); and scholarship of engagement (how research can help individuals and organizations), whereas doctoral institutions stress basic research. If the facilitation role for faculty is indeed more challenging to support in a doctoral institution, (although possible) the dissemination role of management faculty likely takes center stage and produces a "sage on the stage" approach. Yet, management faculty espousing a basic research focus can still fortify the research–teaching nexus by teaching and explaining research methods courses across different levels of students, delivering research symposia to undergraduate and graduate students, and (increasingly) teaching elective courses based on their research. Next, we examine the literature to discern how teaching can inform research in management (i.e., arrow F in Figure 1).

How Can Teaching Inform Research?

At first glance, it may appear to some that using teaching to feed the role of producer in one's research stream is a stretch. However, various authors have claimed success in the pursuit of teaching-inspired research (Becker & Kennedy, 2005; Brew, 2002; Kaplan, 1989; Tushman, O'Reilly, Fenollosa, Kleinbaum, & McGrath, 2007; Vroom, 2007). We now discuss how teaching can inspire what we research in management and how we approach our research.

Inspiring What We Research

Tushman et al. (2007) suggested that research agendas can be enhanced quite successfully in the (custom) executive education arena by paving access roads for management faculty to various organizations. Tushman and colleagues utilize action learning in their executive programs in which intact senior management teams examine and try to solve their own organizational issues by applying management theories; as such, instructor-researchers are privy to data collection sites (that can also enhance their doctoral students' experiences). Vroom (2007) writes about similar research inspirations when "doing research on issues of fundamental concern to [my] students" (372) and when engaging in his executive coaching efforts (which is a growing consulting thrust of management faculty).

For faculty, a primary prompt for generating research ideas stems from prepping new courses (Kaplan, 1989) because the process of mastering a new topical area reveals holes or gaps in one's own knowledge base (Brew, 2002). As Becker and Kennedy (2005) state, explaining a concept to others requires one to "think through more thoroughly" than what one might otherwise do (172). Moreover, serious consideration of and listening to student questions, reflecting upon research projects students engage in, explaining concepts to students, and creating examples for classroom use can all stimulate basic research questions (Becker & Kennedy, 2005). Such activities can also serve a valuable role in public scrutiny and force faculty to be more relevant; for example, MBA students are quite able (and happy) to tell faculty what research questions and findings make sense, which sound hard to believe, and which appear to be an exercise in proving the obvious.

While the aforementioned approaches can provide the impetus for discipline-related research, teaching-inspired research more broadly includes the scholarship of teaching, in which faculty members systematically examine teaching methods in management education and how to make them more effective to increase student learning. Angelo and Cross (1993) strongly advocate using robust research methods to test the effectiveness of classroom techniques; indeed, by using a methodical approach to examine instructional interventions, faculty can model evidence-based management in the way they run their classes. Journals such as *AMLE* have invited such discourse and learning-oriented research in the management discipline, heightening the status of the scholarship of teaching.

Teaching can also inform the scholarship of integration (Boyer, 1990). For example, students could be assigned a course task in their major coursework of reading classic or key pieces on relevant topics in a systematic search to generate and document common themes and key findings. By pulling overarching patterns and results into classroom discussion, students (and faculty) can learn to synthesize what evidence-based principles have been discovered and possess a more comprehensive cognitive map of the management discipline. Ultimately, with potential aid from the instructor and academic peers, students could generate a literature review that documents their findings and any gaps in the field. Last, scholarship of engagement can be generated with an application focus by having students explain and predict how management principles can help them and their organizations to be more effective.

In sum, although teaching activities have been largely disconnected from faculty research efforts (Kaplan, 1989), teaching-inspired research is not only possible but probable with those who have an open and curious mind-set. In the words of Victor Vroom, "not only did research and teaching become synergistic; at times they have become indistinguishable . . ." (2007: 372).

Inspiring How We Approach Our Research

While some have utilized the aforementioned approaches for bolstering their research agendas, others have advocated that research reach further into the classroom. According to Brew (2002, 2003, 2007) and Palmer (1997), a more extensive change approach is to create a learning community of inquiry by engaging more students (not just honors students, for example) in research to some extent. This approach moves us from a teacher-focused approach to a student-focused one (Brew, 2002; Palmer, 1997) and would more actively involve students in learning about research processes and research findings in management.

There are varying degrees of active student engagement in research (Brew, 2002). Students can be involved in experiential exercises during class to learn about a faculty member's research findings (e.g., participating in a salary negotiation exercise in a compensation course to learn about gender effects in salary negotiation). Or they could conduct their own research project as part of a course to learn not only about research processes but also to generate new knowledge. In addition, students could learn about the process of research by practicing the use of research skills and techniques (e.g., literature search and synthesis, hypothesis generation, data collection, data analysis, etc.).

It is in these latter permutations where ethical concerns may arise or even abound (Brew, 2002; Loyd, Kern, & Thompson, 2005). Repetitive attempts at research techniques (e.g., data entry) may advance an instructor's research work but would be overkill in what students need to learn for mastering a course objective (Brew, 2002). Thus, while some variants of "classroom research" provide faculty members with "unique synergistic opportunities" (Loyd et al., 2005: 8) to strengthen the research–teaching nexus, they also challenge instructors to "maintain fidelity to the students' learning objectives" (9). Last, students involuntarily engaged as subjects of research without appropriate Institutional Review Board oversight or approval is problematic (Loyd et al., 2005), and involving students in authentic coproduction ef-

forts but not acknowledging their contributions in published works is downright unethical.

Practical Implications

Strengthening the research–teaching nexus is important to closing the research–practice gap. Our prior discussion raises the question whether this gap can fully be closed without changing the current conceptualization of teaching and research as separate functions. In Figure 2, we revisit Figure 1 by adding descriptors for the links (or arrows) between teaching and research. What we have argued in the preceding section is that research influences teaching by increasing the delivery of cutting-edge knowledge, creating intellectually curious students, and developing critical thinking skills. Further, teaching influences research by stimulating meaningful research questions, challenging researchers' thinking, and creating excitement and energy around further research. It is hard to envision a research–practice bridge that is not supported by these important girders.

It should be clearly noted that while there have been prior articles about improving the perception and value of both teaching and research, our focus is on the *value of integrating teaching and research, not simply improving each*. Prior research (e.g., Hattie & Marsh, 1996; Marsh & Hattie, 2002; Murray, Rushton, & Paunonen, 1990; Radmacher & Martin, 2001; Ramsden & Moses, 1992) has identified multiple barriers that prevent research and teaching integration. Our review of this literature identified five broad categories of barriers to an easy exchange, including (1) elements of the nature of the work (such as competing demands on time and complexity of knowledge); (2) individual characteristics (such as self-efficacy, role expectations, experience/skills, personality, and beliefs about the link between teaching and research); (3) institutional characteristics (such as strategic planning and management tactics, resource allocation, and departmental ethos); (4) the culture of the profession (such as value of teaching versus research, and understanding higher education), and; (5) societal culture (such as a short-run focus and perceptions of research). Such barriers make it difficult for higher education institutions to achieve the ideal of a strong research–teaching link.

[O]ur focus is on the value of integrating teaching and research, not simply improving each.

In this section we outline some suggestions for administrators and faculty (as summarized in Table 1) that could help to overcome existing barriers and consequently, we hope, bring us closer to the ideal. These suggestions should change the tendency to view teaching and research as conflicting rather than as complementary and reduce the likelihood that schools overemphasize research at the expense of good teaching (or vice versa). In the broader context, our suggestions emphasize the need for schools to raise the level of awareness with respect to teaching and research integration. Granted, administrators may have concerns about the relationship between our suggestions and AACSB accreditation or business school rankings. While we cannot promise that a tighter link between teaching and research will influence *Busi-*

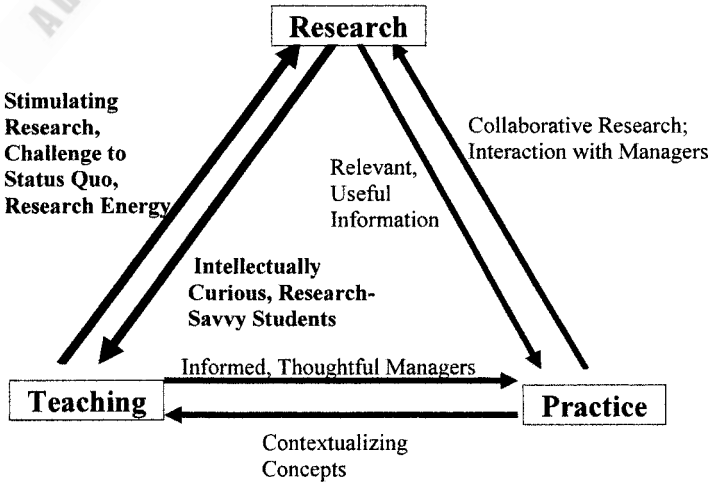

FIGURE 2
Proposed Outcomes of Narrowing the Research–Teaching Gap

TABLE 1
Suggestions to Strengthen the Research–Teaching Nexus

Practical Suggestions	Involved Stakeholders
Emphasize the research–teaching link in graduate program application process and new faculty recruiting and selection process.	Administrators and faculty
Assess the research–teaching link strength in curriculum design efforts and curriculum reviews.	Administrators and faculty
Use a team-based approach with research/teaching faculty, or partner with other institutions as needed.	Administrators and faculty
Communicate the value of integrating research and teaching with students and external stakeholders (e.g., employers).	Administrators and faculty
Pursue faculty development activities that effectively assimilate research and teaching.	Administrators and faculty
Define the faculty role as integrative of research and teaching and communicate to faculty.	Administrators
Integrate the research–teaching link in strategy, mission, and values statements and allocate funds for initiatives to support it.	Administrators
Make work assignment decisions that support the research–teaching nexus (e.g., create research-aligned curricula).	Administrators
Reinforce the research–teaching link in promotion, tenure, performance evaluation, and merit pay decisions.	Administrators
Provide and support training and faculty development opportunities that educate faculty about the research–teaching nexus.	Administrators
Support and use a research-across-the-curriculum approach in business courses (e.g., actively collaborate with students, teach research methods, and encourage students to be effective consumers of research).	Faculty
Integrate evidence-based management principles across courses and pursue professional development opportunities (e.g., conferences) to stay updated.	Faculty
Adopt textbooks that extensively integrate research findings and provide such feedback in reviews and decisions to publishers.	Faculty
Coach graduate assistants about the research–teaching nexus and the importance of reflecting it in their doctoral applications.	Faculty

Note. The exact stakeholders involved will likely vary across business school cultures.

nessWeek rankings (at least not in the short run), we point out that our suggestions are consistent with the direction of AACSB. In fact, the AACSB Impact of Research Task Force Report (AACSB, 2007: 33) has noted in their Recommendation #3:

> Current accreditation standards do not require schools to demonstrate how faculty scholarship by their own and other faculty contributes to degree based education (e.g., how such scholarship is integrated in course work). The Task Force recommends that AACSB undertake a comprehensive study of the relationship between research and teaching and, based on the results, consider developing recommendations to increase the positive impact of research on education and learning. . . . such a study would have to incorporate the notion that varying forms of scholarship by different faculty constitute the base for curriculum development. Thus, it is a college-wide issue to be assessed and not one of individual faculty linkage to scholarly inquiry and teaching.

Thus it is clear that the AACSB recognizes the importance of a teaching–research link. Those institutions that are successful in implementing some suggestions below may find themselves ahead of the accreditation curve.

We organize our suggestions into five logical categories that would likely drive any university action plan: staffing decisions, compensation and reward policies, training and development, changing culture of academe, and changing societal attitudes.

Staffing Decisions

The impact of staffing decisions starts at the point of admissions to graduate programs. To tighten the research–teaching link, graduate program administrators and faculty need to embrace and recognize the value of teaching interests in supporting research interests. Rather than, for example, sending a strong message to prospective doctoral students that research is preferred over teaching, a more balanced perspective could be emphasized in doctoral candidate recruitment materials and in meetings with prospective doctoral candidates. Prospective candidates could also be asked explicitly to address their teaching and research aspirations in their application statements. Business

schools also could incorporate these values in their faculty searches by advertising for and evaluating job applicants on their interest and ability to create research–teaching synergies. This cannot be done with simple interview questions such as, "How important are teaching and research to you?" Nor can it be done by assessing performance in teaching and research as separate functions. Rather, the emphasis would be on what the applicant has done or intends to do to integrate their research and teaching.

Beyond recruitment and selection, university administrators need to give careful consideration to how they define the faculty role in their staffing efforts. As noted earlier, institutions have increasingly separated the teaching and research functions by hiring "teaching-only" faculty, reducing teaching loads for research-active scholars, and encouraging specialization. At the same time, there are schools that have moved to increasing teaching loads for faculty who are not research-productive, quite possibly decreasing the likelihood that they will ever be able to embrace the full faculty role. These practices have the potential to create further separation between research and teaching roles while also risking the creation of "second class" citizens within the college or university. We do not argue that these accommodations should always be avoided; there may be situations in which the separation of teaching and research makes sense (e.g., certain career junctures); we only suggest administrators give careful consideration to the implications of such policies for integrating teaching and research.

Teaching assignments that reinforce faculty research streams, and curricula that play off of faculty research interests, create an alignment between faculty members' research and teaching efforts, known as research-aligned curricula (Brew, 2002). If specialization in teaching or research is allowed, Jenkins and Zetter (2003) discussed the use of teams to conduct teaching and research. A team-based approach could be used to allow specialization but encourage the flow of information between members. Members focused on research could serve to update and inform faculty who focus primarily on teaching about research findings. Research specialists could be given additional responsibilities to publish summary articles that facilitate a link between research findings and teaching; in turn, teaching faculty may be in a position to help identify research questions and react to the external validity of research ideas and design. Together, research and teaching specialists could design curricula in ways that integrate research into the courses and translate research findings into instructional materials. Thus, even in settings where faculty take on specialized roles, the integration of teaching and research is possible, and their nexus can be nurtured.

[E]ven in settings where faculty take on specialized roles, the integration of teaching and research is possible, and their nexus can be nurtured.

In those institutions where teaching is the exclusive emphasis of faculty, integration of teaching and research is undoubtedly a greater challenge. A team-based approach could be made possible by partnering with other institutions (i.e., facilitating research and teaching discussions between partner schools or creating teaching–research mentorships) or by regularly bringing primary researchers to campus to talk about developments in a particular field. To be sure, institutions that specialize in teaching to the exclusion of research would benefit from a proactive strategy to ensure their instructors are kept up-to-date on developments in their field.

Compensation and Reward Decisions

In business schools, administrators' typical merit pay and promotion processes reward faculty primarily on the basis of research productivity and, in particular, specialization (e.g., Leahey, 2007). Under an integrated model, compensation and reward systems, and hence performance evaluation, would consider the extent to which faculty members have achieved integration of their teaching and research. Beginning with student and peer evaluations of teaching, questions could be asked to discover the degree to which the faculty member brings research (one's own and/or others) into the classroom and makes research understandable to students. Evaluating students' grasp of evidence-based management principles, quality of classroom discussion, and quality of research integration in the classroom would support integration. Specific "crossover" activities of faculty could be required for demonstrating merit: faculty work on student research projects (e.g., theses), faculty–student research collaboration, and articles summarizing content area findings for students, practitioners, or other faculty. Jenkins and Zetter (2003) also suggested auditing and reviewing courses on the extent to which they develop a research–teaching link to encourage integration as part of faculty evaluation.

Once performance evaluation of faculty has been adjusted by administrators to consider research–teaching integration, they can reinforce the nexus by creating funding opportunities geared at achieving dual goals, and faculty members successfully achieving integration could be rewarded with greater merit dollars. Promotion and tenure evaluation might also include a requirement for faculty to demonstrate research–teaching integration.

Ultimately, business school administrators' performance should be evaluated, in part, by the progress they make toward encouraging research–teaching integration at their institutions. For example, business school leaders' ability to secure funding for student–faculty collaborative projects and research–teaching interventions, support of research methods courses and courses that integrate student learning with research projects, and building relationships with business to support student research projects would be important when evaluating the teaching and research connection.

Training and Development

As mentioned earlier, doctoral instruction needs to give greater attention to teaching techniques; however, for integration to occur, the research–teaching linkage requires special attention. One of the easiest paths toward this goal is to help faculty understand how to coach research assistants in the research process. Teaching students through involvement in research projects requires good management skills, including strong communication, organization, delegation, and project management skills. We know very little outside our individual experiences about how to manage and teach graduate students in ways that support the research–teaching nexus. Research examining what it takes to do both would be helpful to create best practices in research–teaching assimilation.

At the same time, doctoral students should receive more training on the organizational structure of universities, the university system, and funding of universities (i.e., basic knowledge of their industry) to increase their understanding of the sources of funding for education, effects of these factors on institutional goals and, in particular, the emphasis on research that creates research–teaching tension, which can increase role conflict as faculty members try to allocate their time between these activities. Discussions of the role of faculty in influencing the status quo will encourage empowerment among junior faculty and give them more tools to take deliberate steps to integrate research with teaching as part of their institution's culture.

Finally, faculty members need development programs that raise awareness and knowledge of classroom techniques for integrating teaching and research. Workshops and seminars would provide additional visibility to the research–teaching link and encourage faculty to consider ways they might be able to increase both their research productivity and teaching effectiveness. Faculty development dollars earmarked for research–teaching integration as both an area for study and for skill development are needed.

Changing the Culture of Academe

Jenkins and Zetter (2003) offer several suggestions for improving organizational culture, including strengthening the statement of a research–teaching link in institution and department strategy statements, creating strong mentorship for research–teaching excellence, inducting new faculty into research-inspired teaching as a departmental value, and creating mechanisms for communicating teaching and research practice. They also discuss the role of curriculum review for evaluating forms of pedagogy and assessment, integration of research into curricula, research methods requirements, and opportunities for independent research. In addition, creating opportunities for faculty to engage with the business community will develop faculty awareness of what businesses are currently dealing with and prompt their need to link research with contemporary topics in the classroom.

In addition to these institutional changes, the culture of associated professional associations (e.g., Academy of Management) could change to place greater emphasis on the research–teaching connection. Academic associations can play an important role in encouraging integration by supporting conference workshops and seminars, encouraging special journal editions on research–teaching integration, and sponsoring paper presentations on teaching and research reviews (for the purpose of identifying what and how research findings should be incorporated into the classroom). Textbook authors should be held to a high standard within and by the Academy to integrate research into management texts. This is important particularly given recent research concluding that various business or management texts could improve their research grounding (see Egan & Bendick, 2008; Graham, Kennavane, & Wears, 2008, for a discussion).

Changing Societal Values

It is difficult to make suggestions as to how individual institutions can change societal values. However, the Association of American Colleges and Universities' Liberal Education and America's Promise (LEAP) is intended to address this very issue by increasing understanding and awareness of the value of a liberal education (AAC&U, 2008). LEAP's essential learning outcomes encourage the integration of research and teaching through its emphasis on engaging students in exploring "big questions, both contemporary and enduring," development of inquiry and analytic skills, foundations for lifelong learning, and the ability to integrate learning to new settings and problems. It encourages administrators and faculty to adopt essential learning outcomes and conduct a self-study examining how they reinforce these outcomes through their (1) mission and leadership, (2) admissions and outreach, (3) faculty reward and development, (4) curriculum development, (5) assessment, (6) external relations, and (7) website (AAC&U, 2006). The hope is that these efforts will change student and societal perceptions of what a college education should accomplish by rebalancing the current emphasis on vocational needs with a longer term perspective on the value of academics for creating a more fulfilling life regardless of vocation.

MOVING FORWARD

By strengthening the research–teaching nexus, we believe it is possible to subsequently narrow the research–practice divide. Integrating research into teaching can ingrain in students a value for research findings and processes while giving them the necessary tools to understand both; this then sets the stage for students to incorporate evidence-based management principles into their decision making as professionals. A tighter link between research and teaching is critical to teaching students, our future managers, about the value of research and giving them the skills they will need to be lifelong consumers of management research. Put simply, if managers do not understand research, then they likely will not act in accordance with it, or discern a need to do so. In fact, one could argue that unless research is sufficiently and successfully yoked to teaching, the fissure in research and management practice will persist. Enhanced reinforcement between the research and teaching roles could also equalize the status of research and teaching activities and encourage output of higher value to the consumers of our professional endeavors.

To reach this goal, we need to further our understanding of the teaching–research nexus. For example, an appreciative inquiry technique (Cooperrider & Srivastva, 1987), which is a viable complement to conventional forms of action-research (129), could be used to reveal which conditions are most conducive to reducing the teaching–research gap in management education. In addition, our field would benefit from research studying how best to manage and teach graduate students in ways that support the research–teaching nexus—examining what it takes to integrate both (research and teaching) would be helpful to create best practices in research–teaching assimilation. Theory-building work could also be done to explain the relationship between research, teaching, and practice or to help explain, predict, and understand faculty members' teaching and research performance, allocation of time, and other related work behaviors in light of individual and situational constraints.

Past experience provides convincing evidence that, at least in today's environment, the integration between research and teaching does not occur naturally. Elements of the nature of the work, individual characteristics, institutional characteristics, the culture of the profession, and societal culture create barriers to an easy exchange between research and teaching. In discussing the gap between research and managerial practice, Markides (2007) asserted, "the system does not need radical change—minor adjustments are all that are needed" (763). We take a stronger stance on the need for change and have laid out numerous responses that universities (administrators and faculty) might take to address these barriers and close the gap; yet we do not suggest that every organization or every instructor must take every action. For example, some research topics are less amenable to student participation than others, and faculty researching such topics may find it very difficult to integrate research with teaching. What is important is that we take a holistic perspective and ensure that more integration is occurring within our programs. While many institutions are already doing some of these things, they are not necessarily trying to pull them together in a way that intentionally or strategically addresses the research–teaching gap. In doing so, there can be progress toward bridging the research–practice gap.

REFERENCES

AACSB International. 2007. ***Impact of research task force report.*** Association to Advance Collegiate Schools of Business: Tampa, FL. Retrieved December 28, 2008 from http://www.aacsb.edu/Resource_Centers/Research/Final/Impact_of_Research_Report-FINAL.PDF.

Angelo, T., & Cross, K. P. 1993. ***Classroom assessment techniques.*** San Francisco: Jossey Bass.

Association of American Colleges and Universities. 2008. ***Liberal education and America's promise.*** Washington, DC: Author. Retrieved June 16, 2008 from http://www.aacu.org/LEAP/index.cfm.

Association of American Colleges and Universities. 2006. ***Communicating commitment to liberal education: A self study guide for institutions.*** Washington, DC: Author.

Bartunek, J. M. 2007. Academic-practitioner collaboration need not require joint or relevant research: Toward a relational scholarship of integration. ***Academy of Management Journal,*** 50: 1323–1334.

Becker, W. E., & Kennedy, P. E. 2005. Does teaching enhance research in economics? ***The American Economic Review,*** 95(2): 172–176.

Bennis, W., & O'Toole, J. 2005, May. How business schools lost their way. ***Harvard Business Review,*** 96–104.

Bell, M. 2007. ***Diversity in organizations***. Mason, OH: Southwestern.

Boyer, E. L. 1990. ***Scholarship reconsidered: Priorities for the professoriate.*** San Francisco: Jossey-Bass.

Brew, A. 1999. Research and teaching: Changing relationship in a changing context. ***Studies in Higher Education,*** 24: 291–301.

Brew, A. 2002. ***Enhancing the quality of learning through research-led teaching.*** 2002 HERDSA Conference Proceedings: 1–11. Perth, Western Australia.

Brew, A. 2003. Teaching and research: New relationship and their implications for inquiry-based teaching and learning in higher education. ***Higher Education Research & Development,*** 22: 3–18.

Brew, A. 2007, April. ***Research and teaching from the students' perspective:*** 19–21. International policies and practices for academic enquiry: An international colloquium. Winchester, UK. Retrieved from http://portal-live.solent.ac.uk/university/rtconference/2007/resources/angela_brew.pdf.

Cawley, B. D., Keeping, L. M., & Levy, P. E. 1998. Participation in the performance appraisal process and employee reactions: A meta-analytic review of field investigations. ***Journal of Applied Psychology,*** 83: 615–633.

Cohen, D. J. 2007. The very separate worlds of academic and practitioner publications in human resource management: Reasons for the divide and concrete solutions for bridging the gap. ***Academy of Management Journal,*** 50: 1013–1019.

Colbeck, C. C. 1998. Merging in a seamless blend. ***The Journal of Higher Education,*** 69: 647–671.

Colquitt, J. A., LePine, J. A., & Noe, R. A. 2000. Toward an integrative theory of training motivation: A meta-analytic path analysis of 20 years of research. ***Journal of Applied Psychology,*** 85: 678–707.

Cooperrider, D. L., & Srivastva, S. 1987. Appreciative inquiry in organizational life. ***Research in Organizational Change and Development,*** 1: 129–169.

Dawson, G., & Burke, L. A. 2008. Closing the research-teaching gap in human resource management. ***Journal of Human Resource Education,*** 2(1/2). Available at: http://business.troy.edu/JHRE/Articles/PDF/2-1/10.pdf.

Eichinger, R. W., Lombardo, M. M., & Ulrich, D. 2004. ***100 things you need to know: Best people practices for managers & HR***. Minneapolis, MN: Lominger Limited.

Egan, M. L., & Bendick, M., Jr. 2008. Combining multicultural management and diversity into one course on culture competence. ***Academy of Management Learning and Education,*** 7: 387–399.

Fukami, C. 2007. The third road. ***Journal of Management Education,*** 31: 358–364.

Graham, M. E., Kennavane, E., & Wears, K. H. 2008. Diversity management content in introductory human resource management textbooks. ***Academy of Management Learning and Education,*** 7: 429–439.

Hattie, J., & Marsh, H. W. 1996. The relationship between research and teaching—a meta-analysis. ***Review of Educational Research,*** 66: 507–542.

Hinkin, T., Holtom, B. C., & Klag, M. 2007. Collaborative research: Developing mutually beneficial relationships between researchers and organizations. ***Organizational Dynamics,*** 36: 105–123.

Hutchins, H., & Burke, L. A. 2007. Identifying trainers' knowledge of training transfer research findings – Closing the gap between research and practice. ***International Journal of Training and Development,*** 11(4): 236–267.

Jenkins, A., Blackman, T., Lindsay, R., & Paton-Saltzberg, R. 1998. Teaching and research: Student perspectives and policy implications. ***Studies in Higher Education,*** 23: 127–141.

Jenkins, A., & Zetter, R. 2003, February. ***Linking research and teaching in departments. Learning and Teaching Support Network (LTSN) Generic Centre.*** UK: Oxford Brookes University.

Kaplan, R. S. 1989. Connecting the research-teaching-practice triangle. ***Accounting Horizons,*** 3: 129–132.

Leahey, E. 2007. Not by productivity alone: How visibility and specialization add to academic earnings. ***American Sociological Review,*** 72: 533–561.

Lemak, D. J. 2004. Leading students through the management theory jungle by following the path of the seminal theorists: A paradigmatic approach. ***Management Decision,*** 42: 1309–1325.

Lindsay, R., Breen, R., & Jenkins, A. 2002. Academic research and teaching quality: The views of undergraduate and postgraduate students. ***Studies in Higher Education,*** 73: 603–641.

Locke, R. 1996. ***The collapse of the American management mystique.*** New York: Oxford University Press.

Loyd, D. L., Kern, M. C., & Thompson, L. 2005. Classroom research: Bridging the ivory divide. ***Academy of Management Learning & Education,*** 4: 8–21.

Markides, C. 2007. In search of ambidextrous professors. ***Academy of Management Journal,*** 50: 762–768.

Marsh, H. W., & Hattie, J. 2002. The relation between research productivity and teaching effectiveness. ***The Journal of Higher Education,*** 73: 603–641.

Mintzberg, H. 2004. ***Managers not MBAs: A hard look at the soft practice of managing and management development.*** San Francisco: Berrett-Koehler.

Mowday, R. T. 1997. Reaffirming our scholarly values. ***Academy of Management Review,*** 22: 335–345.

Murray, H. G., Rushton, J. P., & Paunonen, S. V. 1990. Teacher personality traits and student instructional ratings in six types of university courses. ***Journal of Educational Psychology,*** 82: 250–261.

Oviatt, B. M., & Miller, W. D. 1989. Irrelevance, intransigence and business professors. ***Academy of Management Executive,*** 3: 304–312.

Palmer, P. 1997. ***The courage to teach: Exploring the inner landscape of a teacher's life.*** New York: John Wiley.

Pfeffer, J., & Fong, C. T. 2002. The end of business schools? Less success than meets the eye. ***Academy of Management Learning & Education,*** 1: 78–95.

Radmacher, S. A., & Martin, D. J. Identifying 2001. Significant predictors of student evaluations of faculty through hierarchical regression analysis. ***Journal of Psychology,*** 135: 259–258.

Ramsden, P., & Moses, I. 1992. ***Associations between research and teaching in Australian Higher Education,*** 23: 273–295.

Rousseau, D. M. 2006. Is there such a thing as "evidence based management"? ***Academy of Management Review,*** 31: 256–269.

Rousseau, D. M., & McCarthy, S. 2007. Educating managers from an evidence-based perspective. ***Academy of Management Learning & Education,*** 6: 84–101.

Rynes, S. L. 2007. Let's create a tipping point: What academics and practitioners can do, alone and together. ***Academy of Management Journal,*** 50: 1046–1054.

Rynes, S. L., Bartunek, J. M., & Daft, R. L. 2001. Across the great divide: Knowledge creation and transfer between practitioners and academics. ***Academy of Management Journal,*** 44: 340–355.

Rynes, S. L., Colbert, A. E., & Brown, K. G. 2002. HR professionals' beliefs about effective human resource practices: Correspondence between research and practice. ***Human Resource Management,*** 41: 149–174.

Rynes, S. L., Giluk, T. L., & Brown, K. G. 2007. The very separate worlds of academic and practitioner periodicals in human resource management: Implications for evidence-based management. ***Academy of Management Journal,*** 50: 987–1008.

Tushman, M. L., O'Reilly, C. A., Fenollosa, A., Kleinbaum, A. M., & McGrath, D. 2007. Relevance and rigor: Executive education as a lever in shaping practice and research. ***Academy of Management Learning & Education,*** 6: 345–362.

Ulrich, D., Eichinger, R., Kulas, J., & De Meuse, K. 2007. ***50 more things you need to know: The science behind best people practices for managers & HR professionals.*** Minneapolis, MN: Lominger Limited.

Vroom, V. H. 2007. On the synergy between research and teaching. ***Journal of Management Education,*** 31: 365–375.

Watson, S. R. 1993. The place for universities in management education. ***Journal of General Management,*** 19: 14–42.

Weiss, R. M. 1983. Getting applicable research to managers. ***Academy of Management Conference Proceedings:*** 95–99.

Zhao, H., Wayne, S. J., Glibkowski, B. C., & Bravo, J. 2007. The impact of psychological contract break on work-related outcomes: A meta-analysis. ***Personnel Psychology,*** 60: 647–681.

Lisa A. Burke earned a doctorate in OB/HR from Indiana University and is professor of human resource management in the College of Business at the University of Tennessee in Chattanooga. Burke's primary research interests are management training and management education.

Barbara L. Rau is professor of human resource management in the College of Business at the University of Wisconsin, Oshkosh. In addition to management education, Rau's research interests include recruitment, compensation, and labor relations. She holds a PhD in industrial relations from the University of Wisconsin, Madison.

Fonte: Academy of Management Learning & Education, v. 9, n. 1, p. 132-143, Mar 2010. [Base de Dados]. Disponível em: <http//: web.ebscohost.com>. Acesso em: 25 maio 2010.