

The Link between Research and Practice: Experiences of Different Professions and Implications for HRD

Darren Short
Avanade, Inc.

Jeffrey M. Keefer
Columbia University

Sophia J. Stone
North Carolina State University

There is a recognized gap between HRD practice and HRD research. In recent years, actions have been taken to understand and close the gap, and more are planned. Those efforts would benefit from a greater understanding of how the gap is experienced and addressed in other professions. This paper summarizes a literature review of material from other professions and considers the potential lessons for HRD.

Keywords: Research-to-Practice, Evidence-Based Practice, Theory-to-Practice

There is a recognized gap between HRD research and HRD practice. Although much of the material on the gap takes the form of informal opinions (Ruona, 1999) as opposed to conceptual discussion (Hatcher, 2000), nearly 50 refereed and non-refereed HRD journal articles have addressed some aspect of the gap over the last ten years. Those articles contain accusations that HRD practice does not come close to what we know from sound theory (Swanson, 2001), does not recognize the existing literature base (Baldwin, 2000), and has not moved far from criticism of fads and of false short-term training panaceas (Short, Bing & Kehrhahn, 2003). They also include claims that few advances in HRD practice have been grounded in research (Jacobs, 1999), and that it would be optimistic to claim that HRD research is influencing practice in meaningful ways (Berger, Kehrhahn & Summerville, 2004).

Various actions have been taken in response to the gap, including those aimed at bringing together researchers and practitioners at conferences (Berger, Kehrhahn & Summerville, 2004; Short, 2004; Shindell, 2005); new publications (Dilworth & Redding, 1999; McLean, 1997; Roth, 2003); online activities (Bassi, 1998); and new awards to recognize those who excel in linking HRD research and practice (Short, Sherlock & Sugrue, 2004). In addition, there have been calls for increased use of practitioner-academic partnerships, with several published examples including Hamlin, Reidy, and Stewart (1998) and Hamlin (2002).

Research Question

Despite these actions, it is clear that the gap is not going away any time soon (Yorks, 2005), and there have been calls for a more strategic approach to understanding and addressing the gap between HRD research and practice. Based on an analysis of research-practice sessions and pre-conferences at recent HRD conferences, Berger, Kehrhahn, and Summerville (2004) offered six recommendations for closing the gap. Two of the six covered: researching how research-to-practice is experienced within our own profession; and researching how other disciplines have framed and addressed the research-to-practice issue. This paper examines the second of these (researching other disciplines) with a view to supplementing work by others to examine research-to-practice within HRD. Taken together, the work is designed to contribute to a more informed understanding of actions HRD could take to close the gap by answering the following research question:

- How is the link between research and practice experienced in professions other than HRD?
- What are the implications for HRD of these experiences?

Methodology

The literature review focused on materials identified through a database search, and followed four stages. First, articles were identified using a database search using keywords of research-to-practice, evidence-based practice, and

Copyright © 2006 Darren Short, Jeffrey M. Keefer, & Sophia J. Stone

theory-to-practice. This focused on ProQuest, EBSCOhost, WilsonWeb, Sage, Emerald, and ERIC. Second, each of the identified articles was read to identify the professions covered by the articles. From this stage, four professions were identified as being those that appeared most frequently in the literature. They were: healthcare, business, education, and psychology. Third, the literature review focused on the articles identified for each of the four professions. Specific material was identified as relating to links between research and practice, and these were reproduced in a computer package to aid analysis and then summarized by the lead author. Fourth, the summaries were validated by the second- and third-named authors, who re-read the original articles and checked the database searches to ensure articles were not missed.

Limitations

The main limitations of the literature review are that:

- It is based only on literature available through ProQuest and EBSCOhost, and some relevant materials will therefore be omitted.
- The review focused on those professions identified as having the most coverage in published articles on research-to-practice. There is therefore a likely bias in the review towards those professions with problems in linking research and practice; and information from those professions where the link already works well will likely have been omitted from the review.
- The limited space available in this paper has meant that the authors can only offer a brief summary of the overall picture for each profession.

Summary of Research on Other Professions

Amongst the fields where there has been significant coverage of the issue are: healthcare (Olade, 2003), higher education (Kezar & Eckel, 2000), accounting (Kinney, 1989), and psychology (Anderson, Herriot, & Hodgkinson, 2001). Each of these will now be summarized in turn.

Healthcare

Physicians, nurses, and other medical professionals are affected by a gap between research and practice, as illustrated by practitioners failing to consult research, practitioners not routinely accessing journals, and research not focused on practitioner questions (Booth, 2001). Three examples from across healthcare are: in prevention and health promotion, where there is increasing consensus on evidence-based diabetes management practices that are poorly implemented in practice (Glasgow, Lichtenstein, & Marcus, 2003); in HIV treatment, where there is an often long and arduous road from intervention research to the practice of science-based prevention (Sogolow, et al., 2000); and in speech-language pathology, where there is frustration and dissatisfaction among researchers and clinicians over the link between research and practice (Fey & Johnson, 1998).

Across healthcare, several factors are claimed to work against the link between research and practice and against the uptake of evidence-based practices. These include:

- Access to research – the relationship between research and practice is exacerbated by the low investment among practitioners in clinical information systems (Haines, Kuruvilla, & Borchert, 2004; Winslow, 2003). Practitioners need availability of more relevant research that can be more directly connected to practice and directly used for patient care (Hutchinson & Johnston, 2004; Walsh & Rundall, 2001), and tend not to access research findings because they are published in refereed journals that devote little space to practically important descriptions of interventions and how they were conducted (Sogolow et al, 2000).
- Education and training – many practitioners receive insufficient training in using research (Orlandi, 1987), and lack the ability to critically appraise research (Hutchinson & Johnston, 2004). Consequently, studies have demonstrated the relationship between education level and the desire for research utilization, for example with nurses where BSN and Master's degree nurses are more favorable to research utilization (Olade, 2003).
- Different perspectives – there is evidence that researchers and practitioners view their work realities differently, influencing attitudes towards research utilization (Holmes, 2002). This contributes to differences of view about when a new intervention is ready for use. For example, with HIV interventions, researchers may focus on designing rigorous studies and gathering data for analysis, their priority being to continue a study until they can explain risk behaviors or obtain a strong statistical result. Practitioners, on the other hand, may be ready to use interventions as soon as there is some evidence of effectiveness (Sogolow et al, 2000). It also contributes to different views on the nature of research. Much healthcare

research addresses issues of efficacy rather than effectiveness, and so takes place in controlled environments without sufficient consideration of moderating variables and external validity that are important to practitioners (Glasgow et al, 2003).

- Time – limited time and resources of practitioners to review and implement research findings (Glasgow et al, 2003), particularly those working within an urgency-driven environment (Hutchinson & Johnston, 2004; Haines et al, 2004).
- Bringing researchers and practitioners together – there is a lack of routine opportunities for information exchange between researchers and practitioners (Sogolow, et al, 2000), which can have particular impact on practitioners working in rural areas who are most isolated from researchers and tend to be much less favorable towards research (Olade, 2003).
- Incentives – a lack of incentives for using evidence-based practices (Glasgow et al, 2003).

In response, actions have been taken to bridge the gap between research and practice using the integration of health care information (Batstone and Edwards, 1997; Benefield et al., 2000); mentoring programs between academics and practitioners (Bechtle, 2000); learning activities focused on linking research and practice (Bechtle, 2000); and evidence-based practice (Haley, 2000). The evidence-based practice movement came about in 1990s (Hutchinson & Johnston, 2004), and has been fueled in part by technological innovations that have given consumers greater access to medical educational resources on the Internet (Simpson, 2004). Different models have been developed for evidence-based practice (Simpson, 2004), which require competence in the areas of interpreting and using research, evaluating practice, and conducting research.

Sogolow et al (2000) offered a research-to-practice framework to further evidence-based public health practices. The main elements of the framework were: the context in which research and practice operate; the steps involved in conducting research and the link between these steps and practice; the sequence of steps in practice; and feedback from the practice experience to the design of future research and to subsequent practice. Specific suggestions for improving research-to-practice included:

- Reducing time from research to practice, for example by funding agencies providing noncompetitive awards to researchers who have successful interventions to translate their activities for the world of practice.
- Announcing research results before replication and effectiveness studies have been completed.
- Researchers providing expert guidelines on implementation.
- Increased communication and collaboration between researchers, practitioners, policymakers and consumers.
- Allocating specific resources to support the translation, transfer, and sustainability of science-based interventions.

Business

Evidence of the research-to-practice gap also exists within business, although the picture is mixed. Accounting and management display evidence of a research-to-practice gap (Amabile, et al., 2001; Edwards & Emmanuel, 1990; Gruber, 1971), however there is evidence of research being applied in practice in the areas of auditing and tax (Bricker, 1993).

Several actions have been taken to address the gap, including an increased interest in collaborations that bring together practitioners and academics, and also those that cross professions. However, these collaborations are rare as evidenced by the publishing record in the *Academy of Management Journal* (Amabile, et al., 2001). Suggestions for further actions to bridge research and practice in management research include: framing research questions in a way that is meaningful to practitioners; increasing access to sites for field research; designing data collection instruments that are appropriate to the workforce; and interpreting research results accurately within a business context.

The accounting profession is one aspect of business where there has been a particular interest in research-to-practice. Within the profession, there have been claims that research is not disseminated for the practitioner audience and that there is a lack of education about research in the highly technical professional curriculum (Kinney, 1989; Wyatt, 1989). Accounting research-to-practice is also hindered by a resistance to change within the profession, and by perceptions that academics are disconnected from contemporary practice and are not aware of the issues practitioners face (Edwards & Emmanuel, 1990; Wyatt, 1989). For example, Edwards and Emmanuel (1990) identified a communication gap between researchers and practitioners exacerbated by the fact that practitioners do not read academic journals, and academics do not read practitioner journals. As a result, practitioners have difficulty relating research to their practical problems, and do not deem research to be useful (Johnson & Leisenring, 1994). In addition, back in the 1980s, it was claimed that practitioners reduced their involvement in professional bodies such as the American Accounting Association due to the ‘intellectual bias’ of the Association (Dyckman, 1989). In

response, there have been calls for more cooperative research tackled jointly by academics and practitioners (Edwards & Emmanuel, 1990) and also for increasing the influence that research, teaching, and practice have on each other (Kaplan, 1989).

Education

Within the education sector, there is a mixed picture about the extent of research-to-practice. Within the field of adult education, adult literacy education has seen challenges to the traditional university-based view of research through increased practitioner action research and increased links between academic researchers and practitioners via online networks and face-to-face meetings (Quigley, 2000). Similarly, there is evidence of research-practice linkages in bilingual education and in English as a Second Language (Solis, 1999).

However, Abbott et al (1999) claimed that the long-standing gap between research and practice in general and special education has become a matter of national concern, with a tendency for practitioners to operate from intuition and advice from colleagues rather than on information from professional sources (Jongsma, 1992). For example, within Higher Education, the research-to-practice gap is well documented in the literature and growing (Kezar & Eckel, 2000; Kezar, 2000; Peterson, 2000), moving away from the position prior to 1950 when research was tied heavily to practice (Kezar & Eckel, 2000). The assumption held by some practitioners is that context matters, the questions change daily, and traditional research cannot meet those needs (Kezar & Eckel, 2000). Similar problems exist elsewhere in education where research has a limited impact on practice, such as in the area of teaching students with learning disabilities (O'Connor, 2004) and managing the educational function (Hemsley-Brown, 2005).

Amongst the reasons behind the gap are: the field has underestimated the time and effort needed to bring about changes in practice; research studies rarely address questions of interest to practitioners and produce solutions too slowly; the research process fails to engage practitioners; and research has not been disseminated in ways likely to influence practice (Abbott et al., 1999). In addition, researchers and practitioners have different perspectives of what constitutes useful research (Kezar, 2000), and research methodologies are frequently inappropriate for field-initiated studies (Miller, 1986). This situation is exacerbated by the education and professional development of practitioners, where they neither conduct research nor are assigned readings of research articles (Abbott et al, 1999), and where they receive little guidance on how to use research to inform their practice (Solis, 1999).

Efforts have been promoted that seek to close the gap between research and practice, for example by creating awards to recognize those who relate research to practice (Billups, 1997), by seeking to speed-up practitioners' use of research-validated practices and also by promoting new research on practice. In doing this, there has been an emphasis on collaborations (Abbott et al, 1999). For example, in educational administration, the partnership between universities, professional organizations and school systems produced the Potential Administrator Development Program (PADP) as a way to improve administrative training and integrate research to practice and to better prepare future administrators (Peel, Wallace, Buckner, Wrenn, & Evans, 1998). In addition, higher education has worked to bridge the gap by emphasizing research training for students and by establishing an affiliated research center (Peterson, 2000).

One notable illustration of linking education research and practice was the creation of the Educational Research and Development program by the American Federation of Teachers (Billups, 1997). The program involved: identifying credible research on topics of importance to teachers; presenting research in translations that did not alter the research findings; designing a training-of-trainers model to disseminate the research to teachers; and developing collaborative relationships among teachers, colleges and universities, and the research community.

Psychology

Within the psychology profession, there are examples of close ties between research and practice, as well as other examples where there is clearly a widening gap. For counselors, professional education plays a key role in bridging the gap through a practicum-internship experience at the end of the student's coursework, and classes that prepare students for the transition to a professional identity and for integration of theory (Woodard & Lin, 1999). There are also examples of how research, such as in the area of psychiatry, can be examined to identify the implications for practice and how researched procedures can be adapted to fit the world of practice (Petry, Petrakis, Trevsan, Wiredu, et al, 2001).

In Industrial, Work, and Organizational (IWO) psychology, there are reports of an increasing divide between researchers/academics and practitioners. Initially, the close synergy between research and practice was a defining characteristic of the profession, with examples of robust research informing best practice research, and informed practice stimulating new areas for research and theorizing. However, there is now evidence to suggest that there is an increasing divide, for example, there is a decline in the number of practitioner authors in refereed journals and also in the number of refereed articles that address real-world problems. It has been claimed that this is partly due to pressures within academia to produce pedantic research that is methodologically rigorous but not practically

relevant, and opposite pressures within practice to seek popularist science that is practically relevant but is frequently methodologically weak. In response, there have been calls to find ways for research to achieve both practical relevance and methodological rigor (Anderson, Herriot, & Hodgkinson, 2001).

Discussion

The brief summaries contained in the last section demonstrate that the gap between research and practice is far from confined to HRD. Indeed, the review confirmed views that there is a well-documented gap between research and practice, not just in the organizational sciences, but in nearly all fields in which there are both researchers and practitioners (Rynes, Bartunek, & Daft, 2001). The review also highlighted the complex nature of the relationship between research and practice, confirming Miller's (1986) statement that, "I do not know of an issue that is more complex than the application of research to practice" (p. 70).

The main lessons from the review are:

Many of the same factors are used by different disciplines to describe reasons for the gap between research and practice. These include: researchers are disconnected from the world of practice; research questions do not address issues of importance to practitioners; research methodologies do not provide answers to practitioner questions; research is not being disseminated in ways that are likely to influence practice; there is a lack of education and training for practitioners in the understanding and use of research; there are limited opportunities to bring together practitioners and researchers.

Collaboration between researchers and practitioners is viewed as important to closing the gap. Across the disciplines, the lack of communication between researchers and practitioners is viewed as a leading contributing factor to the gap, and different forms of collaboration are proposed as a means of closing the gap. These include: routine exchanges of information between researchers and practitioners; increasing involvement of practitioners in professional scholarly associations; and increasing collaboration between universities, professional associations and practitioners. Although relatively little attention was given to collaboration during the research process, as in the topic of partnership research within HRD (Jacobs, 1999).

Changing the nature of research. Across the disciplines, concerns were expressed that research was not focused on issues of importance to practitioners, that research methodologies frequently made it difficult to address those questions that are important to practitioners, and that the timeframe for research meant that research results were frequently too late to affect practice. Suggestions were made to consider alternative methodologies, and also to balance the need for methodological rigor with the need for practical relevance.

Research needs to be disseminated to practitioners in a form that encourages its use. Each discipline reported problems with disseminating research to practitioners, including how it is written and where it is published. This led to suggestions for identifying relevant research and translating it for a practitioner audience and making it easier for practitioners to access research.

The role of education. Across the disciplines, it was reported that practitioners tend to lack the knowledge and skills needed to find and understand research, and this highlighted the role of professional education and development in preparing practitioners to work with research and theory.

In addition, the review identified actions taken by other professions that could be considered by the HRD profession. These included:

- Increasing the frequency with which HRD researchers and HRD practitioners come together, emphasizing the role of universities and professional associations in making that happen. Such actions could include mentoring programs between academics and practitioners.
- Increasing the emphasis on evidence-based practice within HRD. Although evidence-based practice has been examined in the medical field for over a decade, there has been relatively little coverage within HRD, the exceptions being Hamlin (2002) and Holton (2004). More work is needed to examine the concept within the HRD context, develop models for evidence-based practice within HRD, and to produce guidelines for HRD practitioners and researchers on how to inform and adopt evidence-based practices.
- Identifying research questions of importance to HRD practitioners, and considering alternative research methodologies to provide answers. As part of this, HRD research needs to examine the extent to which is addresses the need for pragmatic science (methodological rigor and high practical relevance) as opposed to pedantic science (methodological rigor and low practical relevance). HRD researchers also need to consider how to conduct and disseminate research in a timeframe that for more rapid implementation by practitioners.

- Reconsidering how HRD research is disseminated to HRD practitioners, including the need for greater integration and translation of HRD research so that it is presented in easily accessible and understandable forms, and so that it clearly addresses specific issues of importance to HRD practitioners.
- Considering how existing HRD practitioner qualifications and certifications can be amended to provide coverage of research and the application of research in practice.
- Considering how to recognize and reward those who excel in linking research and practice in HRD.

Importance to HRD

The purpose of this paper was to provide a summary of research-to-practice literature from other disciplines so it may inform ongoing dialogue and planned actions within HRD.

The current state of research-practice links in HRD is clearly a concern and, for at least a decade, HRD researchers and practitioners have called for urgent action to address the situation. As this paper has demonstrated, HRD is not alone, and shares many of the research-to-practice problems faced by other fields and disciplines. The actions taken by those fields and disciplines can usefully inform those to be adopted by HRD to avoid the situation that HRD fails to learn from the experiences of others.

References

- Abbott, M., Walton, C., Tapia, Y., & Greenwood, C. R. (1999). Research to practice: A "blueprint" for closing the gap in local schools. *Exceptional Children*, 65 (3), 339-352.
- Amabile, T. M., Nasco, C. P., Mueller, J., Wojcik, T., Odomirok, P. W., Marsh, M., et al. (2001). Academic-practitioner collaboration in management research: A case of cross-profession collaboration. *Academy of Management Journal*, 44 (2), 418-431.
- Anderson, N., Herriot, P., & Hodgkinson, G. P. (2001). The practitioner-researcher divide in industrial, work and organization (IWO) psychology: Where are we now and where do we go from here? *Journal and Occupational and Organizational Psychology*, 74, 391-411.
- Baldwin, T. T. (2000). Fundamental choices in human resource development scholarship and practice. *Advances in Developing Human Resources*, 7, 70-74.
- Bassi, L. J. (1998). Connecting research and practice through the ASTD Research Committee: Staying relevant in an electronic world. *Human Resource Development Quarterly*, 9 (4), 315-317.
- Batstone, G., & Edwards, M. (1997). Evidence-based practice: Just for 'techies'? *Journal of Clinical Effectiveness*, 2 (2), 29.
- Bechtle, H. (2000). Interview with Jephtha Dalson, Ph.D., president and CEO of AUPHA and ACEHSA, Washington, D.C. *Journal of Healthcare Management*, 45, 142-146.
- Benefield, L. E., Clifford, J., Cox, S., & Hagenow, N. R., et al. (2000). Nursing leaders predict top trends for 2000. *Nursing Management*, 31 (1), 21-23.
- Berger, N. O., Kehrhahn, M. T., & Summerville, M. (2004). Research to practice: Throwing a rope across the divide. *Human Resource Development International*, 7(3), 403-409.
- Billups, L. H. (1997). Response to bridging the research-to-practice gap. *Exceptional Children*, 63 (4), 525-527.
- Booth, A. (2001). Turning research priorities into answerable questions. *Health Information and Libraries Journal*, 18, 130-132.
- Bricker, R. (1993). Toward understanding academic research. *The CPA Journal*, 63 (2), 52-54.
- Colbeck, C. L. (2000). Reshaping the forces that perpetuate the research-practice gap: Focus on new faculty. *New Directions for Higher Education*, 110, 35-47.
- Dilworth, R. L., & Redding, J. (1999). Bridging gaps: An update from the ASTD Research Committee. *Human Resource Development Quarterly*, 10(3), 199-202.
- Dyckman, T. R. (1989). Practice to research: 'What have you done for me lately?' *Accounting Horizons*, 3(1), 111-118.
- Edwards, K., & Emmanuel, O. (1990). Exploring the relevance gap. *Management Accounting*, 68, 44-46.
- Fealy, G. M. (1997). The theory-practice relationship in nursing: An exploration of contemporary discourse. *Journal of Advanced Nursing*, 25, 1061-1069.
- Fealy, G. M. (1999). The theory-practice relationship in nursing: The practitioners' perspective. *Journal of Advanced Nursing*, 30, 74-82.
- Fey, M. E., & Johnson, B. W. (1998). Research to practice (and back again) in speech-language intervention. *Topics in language disorders*, 18 (2), 23-34.

- Glasgow, R. E., Lichtenstein, E., & Marcus, A. C. (2003). Why don't we see more translation of health promotion research to practice: Rethinking the efficacy-to-effectiveness transition. *American Journal of Public Health, 93*(8), 1261-1267.
- Gruber, W. H. & Niles, J. S. (1971). Problems in the utilization of management science/operations research: A state of the art survey. *Interfaces, 2*(1), 12-19.
- Haines, A., Kuruvilla, S., & Borchert, M. (2004). Bridging the implementation gap between knowledge and action for health. *Bulletin of the World Health Organization, 82*(10), 724-731.
- Haley, L. (2000). Are today's physicians ready for evidence-based medicine? *Medical Post, 36*, (8), 4.
- Hamlin, B. (2002). In support of evidence-based management and research-informed HRD through HRD professional partnerships: An empirical and comparative study. *Human Resource Development International, 5*(4), 467-491.
- Hamlin, R. G., Reidy, M., & Stewart, J. (1998). Bridging the HRD research-practice gap through professional partnerships. *Human Resource Development International, 1*(3), 273-290.
- Hatcher, T. (2000). A study of the influence of the theoretical foundations of human resource development on research and practice. In K. P. Kuchinke (ed.), *AHRD conference proceedings* (pp. 2-2). Bowling Green, OH: AHRD.
- Hemsley-Brown, J. (2005). Using research to support management decision making within the field of education. *Management Decision, 43*(5), 691-705.
- Holmes, C. A. (2002). Academic and practitioners: Nurses as intellectuals. *Nursing Inquiry, 9*(2), 73-83.
- Holton, E. F., III (2004). Implementing evidence-based practices: Time for a national movement? *Human Resource Development Review, 3*(3), 187-188.
- Hutchinson, A. M. & Johnston, L. (2004). Bridging the divide: A survey of nurses' opinions regarding barriers to, and facilitators of, research utilization in the practice setting. *Clinical Nursing Issues, 13*, 304-315.
- Jacobs, R. L. (1999). Partnership research: Ensuring more useful HRD collaborations. In K.P. Kuchinke (ed.), *AHRD conference proceedings* (pp. 874-879). Bowling Green, OH: AHRD.
- Jongsma, K.S. (1992). Research to practice: Here we go again. *The Reading Teacher, 45* (9), 718-720.
- Kaplan, R. S. (1989). Commentary on connecting the research-teaching-practice triangle. *Accounting Horizons, 3*, 129 – 132.
- Kezar, A. (2000). Understanding the research-to-practice gap: A national study of researchers' and practitioners' perspectives. *New Directions for Higher Education, 110*, 9 -19.
- Kezar, A., & Eckel, P. (2000). Moving beyond the gap between research and practice. *New directions for Higher Education, 110*, 1-7.
- Kinney, W. R. (1989). The relation of accounting research to teaching and practice: A "positive" view. *Accounting Horizons, 3*(1), 119 – 124.
- Leisenring, J. J., & Johnson, L. T. (1994). Accounting research: On the relevance of research to practice. *Accounting Horizons, 8*, 74.
- McLean, G. N. (1997). The illusion of knowledge. *Human Resource Development Quarterly, 8*(4), 277-280.
- Miller, L. P. (1986). The application of research to practice: A critique. *The American Behavioral Scientist, 30*(1), 70-80.
- O'Connor, R. E. (2004). Revealing the hidden world of research. *Journal of Learning Disabilities, 37*(3), 224-230.
- Olade, R. A. (2003). Attitudes and factors affecting research utilization. *Nursing Forum, 38*(4), 5-15.
- Orlandi, M. A. (1987). Promoting health and preventing disease in health care settings: An analysis of barriers. *Preventative Medicine, 16*, 119-130.
- Peel, H. A., Wallace, C., Buckner, K. G., Wrenn, S. L., & Evans, R. (1998). Improving leadership preparation programs through a school, university, and professional organization partnership. *NAASSP Bulletin, 82*(602), 26-34.
- Peterson, M. W. (2000). The tyranny of success: The research-practice tension. *New Directions for Higher Education, 110*, 21-34.
- Petry, N. M., Petrakis, I., Trevsan, L., Wiredu, G., Boutros, N. N., Martin, B., & Kosten, T. R. (2001). Contingency management interventions: From research to practice. *The American Journal of Psychiatry, 158*(5), 694-702.
- Roth, G. L. (2003). Fame as an honorable HRD scholar. *Human Resource Development Quarterly, 14*(4), 365-368.
- Ruona, W. E. A. (1999). Theory in 'theory to practice': Voices of practitioners. In K.P. Kuchinke (ed.), *AHRD conference proceedings* (pp. 888-896). Bowling Green, OH: AHRD.
- 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* (2), 340-355.
- Quigley, B. A. (2000). The practitioner-researcher: A research revolution in literacy. *Adult Learning 11*(3), 6-8.

- Shindell, T. J. (2005). Seeing it from both sides: Beyond bridges in research-to-practice. *Human Resource Development Quarterly*, 16(2), 153-156.
- Short, D. C. (2004). 2004: A significant year for research-practice links in HRD. *Human Resource Development International*, 7(4), 541-543.
- Short, D. C., Bing, J. W., & Kehrhahn, M. T. (2003). Will human resource development survive? *Human Resource Development Quarterly*, 14(3), 239-243.
- Short, D. C., Sherlock, J. J., & Sugrue, B. (2004). Time to recognize and reward those who link research and practice. *Human Resource Development Quarterly*, 15(3), 259-262.
- Simpson, R. L. (2004). Evidence-based nursing offers certainty in the uncertain world of healthcare. *Nursing Management*, 35(10), 10-11.
- Sogolow, E. D., Kay, L. S., Poll, L. S., Neumann, L. S., Mezoff, J. S., Eke, A. N., Semaan, S., & Anderson, J. R. (2000). Strengthening HIV prevention: Application of a research-to-practice framework. *AIDS Education and Prevention*, 12(Supplement A), 21-32.
- Solis, A. (1999). Research-informed teaching in bilingual education: Does it happen? How does it help? *Bilingual Research Journal*, 23(1), 89-96.
- Swanson, R. A. (2001). Human resource development and its underlying theory. *Human Resource Development International*, 4(3), 299-312.
- Walshe, K. & Rundall, T. G. (2001). Evidence-based management: From theory to practice in health care. *The Milbank Quarterly*, 79(3), 429-457.
- Winslow, R. (2003, February 4). For U.S. doctors, standard practice varies too much. *Wall Street Journal*, pg. D-5.
- Woodard, V. S., & Lin, Y. (1999). Designing a pre-practicum for counselor education programs. *Counselor Education and Supervision*, 39(2), 134-144.
- Wyatt, A. (1989). Commentary on interface between teaching/research and teaching/practice. *Accounting Horizons*, 3(1), 125-128.
- Yorks, L. (2005). Nothing so practical as a good theory. *Human Resource Development Review*, 4(2), 111-113.