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The value of connecting research and practice

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The Value of Connecting Research and Practice

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Abstract

This study examined the attitudes of undergraduate teacher education majors and education faculty about the value of connecting educational research and practice in the university and in K-12 schools. Seventeen students and ten faculty participated in the study. The findings indicate that many participants think educational practice and research are typically conducted in isolation of each other.

Introduction

In recent years, both research findings (Barton, 2005; Berends, Lucas, Sullivan, & Briggs, 2005; Business-Higher Education Forum, 2005; Eisenhower National Clearinghouse for Mathematics and Science Education, 1999; Swail, Cabrera, & Lee, 2004) and policy discussions (Committee on Science, Engineering, and Public Policy, 2005; Darling-Hammond & Sykes, 2003; Tornatzky, Pachon, & Torres, 2003) have focused on the achievement gaps of American children and the importance of teacher education. In 2001, the Carnegie Corporation of New York began a new national teacher reform initiative intended to address some of these issues. The "Teachers for a New Era" or TNE initiative sought "to stimulate construction of excellent teacher education programs at selected colleges and universities" (Carnegie Corporation of New York, 2001, paragraph 2). Eleven colleges and universities were selected to participate in the initiative and were charged with making sweeping changes in their respective teacher education programs. "We expect outcomes implementing radical change. Among these [changes] will be different allocation of resources; academic organizations; criteria for evaluating participating faculty; internal accountability measures; and relationships with practicing schools" (p. 1). A major goal of the TNE initiative is to treat "teachers as modern clinical professionals while transforming "schools of education into schools of modern clinical practice" (Hinds, 2002, p. 3)

This study [1] examined the attitudes undergraduate teacher education majors and education faculty at a public university had about the value of connecting educational research with educational practice. The participants were students and professors at a Hispanic-serving research university located in a large bi-national metropolitan area along the United States-Mexico border.

Literature Review

Scholarly Teaching: The Struggle with Research and Practice

Shulman (2000) defined the scholarship of teaching as similar to "clinical work of faculty members in a medical school's teaching hospital" where clinical work is "subjected to systematic reflective analysis" (p. 49). Scholarly teaching is different from the scholarship of teaching, according to Shulman. The latter, said Shulman, is "peer reviewed and critiqued, and exchanged with other members of our professional communities" (p. 49). Many, like Shulman, have called for a reexamination of education so that research may inform practice and practice may engender further research. Schön (1995), for example, discussed the "dilemma of rigor or relevance" in modern research universities. For Schön, the norms and "prevailing epistemology" of research universities was such that institutions strongly preferred to be institutions of "technical rationality" where the measure of institutional wealth and prestige was counted by the production of theory, research, and rigor. According to Schön,

there is a high, hard ground overlooking a swamp. On the high ground, manageable problems lend themselves to solution through the use of research-based theory and technique. In the swampy lowlands, problems are messy and confusing and incapable of technical solution (Paragraph 11)

Schön argued for a new form of scholarship requiring a new institutional epistemology that would incorporate and legitimize the research of reflective and relevant practice possibly at the expense of some rigor. Boyer expressed similar thoughts in his seminal work, *Scholarship Reconsidered: Priorities of the Professoriate*. According to Boyer (1990), “theory surely leads to practice. But practice also leads to theory. And teaching, at its best, shapes both research and practice” (Boyer, 1990, p. 16).

University Faculty and Reward Systems: The Pressure to Publish

Most research faculty, of course, understand that research, publishing, and external grant funding are the primary triad of activities used to measure their worth. Indeed, these “coins of the realm” weigh heavily in faculty tenure and promotion decisions (Kennedy, 1997, Astin, 2002; Kezar, Chambers & Burkhardt, 2005). How education faculties respond to the incentives (or demands) of university reward systems may have major implications for the success or failure of teacher education reform. Any reform of teacher education must take into consideration the nature of university faculty roles and rewards in general and how education faculty, in particular, are rewarded. To do otherwise removes a key variable that could influence any reform initiative of teacher education and colleges of education.

Much has been written about the nature of faculty roles and responsibilities since Boyer’s (1990) seminal work on reconceptualizing and redefining the professoriate. Recent examples include discussions about selectivity and rigor (Lawler, 2001), the privatization of higher education (Bok, 2003), grade inflation and the relationships between students and faculty (Ellis, Burke, Lomire, & McCormack, 2003), institutional change (Zambroski & Freeman, 2004) and faculty rewards (Glassick, Huber, & Maeroff, 1996). Additionally, other research demonstrates that determining how much attention a university faculty member pays to the integration of teaching and research is significantly influenced by the university where one received a terminal degree, the university where one works, the length of time one has been a faculty member (Boice, 1991), and one’s academic discipline and respective department (Fairweather & Rhoads, 1995; Colbeck, 1998).

Methods

Research Question: What are the attitudes of undergraduate teacher education majors and education faculty toward connecting research and practice in the classroom?

Procedures

University institutional review board approval was received in September 2004. Target and accessible populations were defined and a convenience sample was generated. Possible participants were contacted in person between October 2004 and December 2004 and asked to participate in the pilot study. Participants were given informed consent forms and the actual survey. Data was collected between October 2004 and January 2005. Data was collected electronically and analyzed using descriptive statistics.

Demographics

There were 27 participants in the study (see Table 1, website <http://www.rapidintellect.com/AEQweb/sum2007.htm>) Seventeen (62.9%) participants were degree-seeking undergraduates enrolled in a teacher education program. Fourteen (82.4%) of the student participants are Hispanic, 2 (11.8%) are White and 1 (5.9%) is multi-racial. The remaining 10 participants (37.1%) were education faculty members; four were untenured and 6 were tenured. Three of the faculty participants (30%) are Hispanic, 6 (60%) are White, and 1 (10%) is multi-racial. Because the sample size was small, the gender of the participants is not reported in an effort to ensure participant anonymity.

The average teaching experience for the 17 student participants was .41 years. Only one (5.9%) student participant considered himself or herself an educational researcher. None of the student participants had published a scholarly publication. The average faculty teaching experience was 19.7 years (SD = 10.73 years). Twenty percent (n = 2) of the faculty participants said they were not educational researchers. Faculty participants averaged 12 peer-reviewed publications in their academic lifetime (SD = 9.58 publications).

Similarities and Differences: Opinions about Current and Future Connections

Nearly two-thirds (64.7%, n = 11) of the student participants, 75% (n = 3) of the untenured faculty participants, and 50% (n = 3) of the tenured faculty participants disagreed with the statement that their teaching was peer reviewed, critiqued, and exchanged with others in their professional communities (Pearson Chi-square significant at .006). When asked about whether their teaching should be peer reviewed, critiqued, and exchanged with others in their professional communities, all the participants subgroups (student participants, 88.2%, n = 15; untenured faculty, 75%, n = 3; tenured faculty 100%, n = 6) agreed that it should (see Table 2 for a summary of findings, website <http://www.rapidintellect.com/AEQweb/sum2007.htm>).

Ninety percent (n = 9) of untenured and tenured faculty participants said research was not more important than practice. Eighty percent (n = 8) of the faculty said students were not comfortable connecting research with practice. Eighty percent (n = 8) of the faculty disagreed with the statement that a majority of administrators supported connecting research with practice.

Nearly three-quarters (70.6%, n = 12) of the student participants, 50% (n = 2) of the untenured faculty, and 83.3% (n = 5) of the tenured faculty said most educators were currently well grounded in the sources and resources appropriate to their field. One hundred percent (n = 17) of student participants and 100% (n = 10) of the faculty participants said both professors and teachers should be well grounded in their field (Pearson Chi-square significant at .002).

When asked about a culture of research and inquiry, 88.2% (n = 15) of the student participants, one untenured faculty (25%) participant, and 33.3% (n = 2) of the tenured faculty participants said a culture of research, inquiry, and data analysis currently permeated the university culture (Pearson Chi-square significant at .013). All (n = 10) of the faculty participants said such a culture should permeate the university. A large percentage of student participants (82.4%, n = 14) also said a culture of research, inquiry, and data analysis should permeate the university.

When asked about whether educational practice should be considered much more important than education research, 52.9% (n = 9) of the student participants said practice should be more important than research. Conversely, 100% of the faculty participants disagreed that practice should be more important than research (Pearson Chi-square significant at .047).

A majority of student participants (82.4%, n = 14) and a majority of untenured (75%, n = 3) and tenured (50%, n = 3) faculty participants agreed that the knowledge and skills of teaching are mostly acquired through experience in the school. When asked whether the knowledge and skills of teaching should mostly be acquired through experience in the school, the majority of student participants (52.9%, n = 9) agreed that knowledge and skill acquisition should continue primarily through practice in the schools. However, untenured (75%, n = 3) and tenured faculty (66.7%, n = 4) disagreed. They cited the importance of applying theory to practice. A slight majority of student participants (52.9%, n = 9), 100% (n = 3) of the untenured faculty, and 50% (n = 3) of the tenured faculty agreed with the statement that the current prevailing belief in the university is that educational research is conducted and disseminated for the benefit of researchers in universities and not for teachers in the classroom.

An overwhelming number of student participants (94.1%, n = 16) agreed that most professors at the university supported connecting research with practice. Interestingly, only half of the untenured (50%, n = 2) and tenured (50%, n = 3) faculty said the majority of professors at the university did not currently support connecting research with practice (Pearson Chi-square

significant at .008). All of the untenured (n = 4) and tenured faculty (n = 6) and 94.1% (n = 16) of student participants said teachers should connect research with practice.

Discussion

Limitations of the Study

The study has been limited in a number of ways. First, the study was restricted to exploring and describing the beliefs of students and faculty about connecting educational research and educational practice in their educational organizations. Obviously, no attempts should be made to generalize these findings to other individuals or organizations. The results are merely descriptive of one very small convenience sample of future schoolteachers and their university education professors. Second, the voluntary nature of the participants has limited the study. It is possible, for example, that those who chose not to participate in the study may have significantly different opinions about the connecting educational research with practice. Third, the study utilized a survey in which answer choices were dichotomized, consequently limiting answer choices to either "true" or "false." In contrast, using a survey with multiple responses or conducting in-depth interviews of the participants, for example, may have yielded very different results.

Study Summary

A majority of the students but only a minority of faculty said a culture of research, inquiry, and data analysis permeated the university culture. Faculty and students agreed that there was little or no peer review, critique, or academic exchange at the university as called for by Shulman (2000). Students said most professors at the university supported connecting research with practice and while most faculty disagreed with this assessment (most faculty believed there was little or no support), both students and faculty said the prevailing belief in the university meant that educational research was conducted and disseminated for the benefit of researchers in universities and not for teachers in the classroom.

Research and Practice in the Field

A majority of students said that educational practice was more important and should continue to be more important than educational research. The faculty disagreed with the students, again, calling for more of a balance between research and practice. Most students and even most faculty believed the knowledge and skills of teaching are mostly acquired through experience in the school. While students said that knowledge and skill acquisition should continue primarily through practice in the schools, faculty, not surprisingly, disagreed, believing knowledge and skills were best acquired at the university and in the schools.

The Lack of Connection and Reflection

According to (Cross, 2000), "although an occasional ardent defense of research as an activity that exists to provide knowledge still appears, it is generally conceded that in applied professional fields such as education, research is an activity that exists to produce improvement" (p. 63, author's original italics maintained). The faculty may understand in the importance of linking research with practice and improving K-12 education. However, they also understand, as do the students, that research is conducted for the benefit of the university and the faculty and is usually not a part of the clinical, practical experiences students receive in teacher education programs.

Conclusion

This small study illustrates that real differences between education professors and their students exist over the value (and by extension, the priorities) of connecting research with educational practice. It is not surprising that the faculty and student participants understand that research is the primary criteria by which faculty are evaluated for tenure and promotion. There may be less understanding about the possible advantages of balancing research and practice both in the university and in K-12 schools. This study suggests, at least for this university, that the institution and its education faculty and students are a long way from a culture envisioned by Schön and Boyer where

research informs practice and practice stimulates further research. With just a touch of irony, it is important to mention that further research in this area is needed.

Endnotes

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[2] Only significant Pearson Chi-squares cross-tabulations and their respective significance levels are noted in the text.

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