

## HOW THE EDUCATION DOCTORATE TEACHES LEADERS TO USE RESEARCH EVIDENCE

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**Background/Context:** Educational leaders have a crucial role in finding, assimilating and applying research evidence for improvement (Daly, Finnigan, Moolenaar, & Che, 2014; Farrell & Coburn, 2017). They are more effective when helping colleagues and staff use evidence directly rather than using external support agencies (Honig, Venkateswaran, & McNeil, 2017). As the primary source of advanced preparation for educational leaders, the educational doctorate (EdD) should prepare leaders to apply relevant research findings. Yet, these programs have been criticized for providing both too much (Honig, Donaldson Walsh, Young, & Eddy-Spicer, 2019; Murphy, 2007) and too little (Levine, 2005; Prestine & Malen, 2005) didactic research training while paying limited attention to other program features that may affect evidence use. For instance, while the prevalence of the cohort design and group dissertations in EdD programs has been studied (e.g., Browne-Ferrigno & Jensen, 2012), their implications for preparing leaders to use research evidence have not.

**Purpose/Objective/Research Question:** This paper asks what features of EdD programs contributes to graduates' use of research evidence. More specifically we ask:

- What does graduates' use of evidence look like?
- What factors best explain that use?

**Research Design:** Because of the dearth of previous research, we employed an iterative, exploratory, mixed methods, multi-case design (Creswell & Plano Clark, 2018; Yin, 2018).

- *Institutions:* We studied four EdD programs that were members of the Carnegie Project on the Education Doctorate (CPED), the major professional association of EdD programs. Programs were broadly distributed across the country. Because the dissertation experience provides the primary apprenticeship in evidence use, we chose two programs with individual dissertations and two with group dissertations. In three programs, graduates had recently won the CPED dissertation of the year award.
- *To examine evidence use,* we surveyed alumni from all four programs and interviewed a sample of those surveyed.
- *To obtain data on factors influencing evidence use,* we used the alumni survey and site visit data. Because this was an exploratory study, we conducted institutional site visits that included interviews with students, faculty, and administrators, observations of class sessions, and document collection. Site visits and published studies of research use were used to develop the survey instruments.
- *Analysis:*
  - We coded site visit data using broad descriptive codes drawn from hypothesis-generating memos written after site visits (Coffey & Atkinson, 1996). Code definitions were iteratively clarified and standardized through consultation among research team members. The coded data generated commonly structured case studies of each program that were member-checked with interviewees from each site. The case study data were used for qualitative analysis of program features.
  - Alumni interviews were coded using a process similar to that used with the site

visit data. The major analytic activity was to compare themes identified among the highest and lowest evidence users as determined by survey responses both to validate the survey and clarify the nature of RU in these instances.

- Survey analysis began with factor analyses to validate the existence of constructs anticipated when the surveys were designed. We then conducted regression and path analyses to explore how program features influenced RU.

### **Findings/Results:**

- *Evidence Use:* We expected to find three types of evidence use: instrumental, use of evidence to guide decisions; conceptual, use for learning, to clarify thinking, or to generate awareness; and persuasive, to influence peers and superiors (Nutley, Walter, & Davies, 2007). Interviews did identify all three types although much persuasive use was directed downward to support implementation. However, the survey identified one “multiple uses of evidence” factor. The interviews also suggested that specific “histories of use” typically combined more than one type.
- *Factors Influencing Use:*
  - The site visits suggested that two factors contributed to evidence use.
    - Formal instruction: Students not only learned how to understand and conduct research but had opportunities to use these skills in applied settings.
    - Social interaction: All programs taught students in cohorts that allowed students to interact often and learn from each other as anticipated by communities of practice and social practice theory (Lave, 2012; Wenger, 1998). Moreover, faculty were also accessible to students and participated in similar interactions.
    - The dissertation approach where individual dissertations stressed helping students learn to apply research skills and findings to a “problem of practice.” Group dissertations enhanced the social capacities necessary for using research.
  - The survey analysis identified aspects of the formal program (guided experiential opportunities to conduct research) and social interaction (peer academic bonding, advisor bonding) that supported these observations. The group dissertations indirectly contributed to developing social practices that support evidence use.

### **Conclusions:**

This is perhaps the first study to examine how EdD programs “teach” RU. It suggests that certain identifiable practices promote increases in RU. These include instruction that is rigorous, concrete, and tightly linked to the kinds of problems where graduates will use evidence in their work. It is also collaborative, requiring joint problem solving among students and with faculty guidance. These findings must be interpreted in light of the study’s limitations including the challenges of being a first study of a question studying only a few, higher status institutions with limited opportunities for field work and a modest population of graduates to survey. Nevertheless, this work offers useful insights for future program planning and additional research.

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