Examining the Educational Leadership Knowledge Base: A 5-Year Citation Analysis

Arthur Borgemenke
Casey Graham Brown
Texas A&M University-Commerce

The professionals who research and publish in the field of educational administration impact the theory and best practice cycle that develops into the discipline’s body of knowledge. This body of knowledge, in turn, is imparted to aspiring educational leaders. The authors examined whose research educational administration researchers are citing, and thus, by assumption, whose research and ideas are being incorporated into graduate-level coursework. The citations in a leading online research journal in the field were examined to seek what discernable patterns and trends existed in citations. In an examination of measures of impact, the authors studied data from an electronic tracking system that indicate the number of times a Portable Document Format is retrieved from the journal’s website and analytical data that indicate the frequency of electronic article/module retrieval.

INTRODUCTION

The study of educational leadership involves an examination of how school administrators impact educational outcomes (Robinson, Hohepa, & Lloyd, 2009). Those professionals who study, instruct, research, and publish in the field of educational administration impact the postulate/theory/best practices cycle that evolves into the disciplines scholarly body of knowledge. The body of knowledge developed through that research and reflection in turn affects those seeking to be educational leaders through their participation in university-based educational administrator preparation programs.

If the work that scholars contribute to in the field of educational administration informs and evolves the disciplines body of knowledge, then we may deduce that those cited in scholarly venues have an impact on education. This research project began with the simple question, “Which articles and authors are highly cited in the field of educational administration?” This brought about the above discussion of assumptions one could make from that citation analysis regarding whose ideas and research comprise the framework of the field. Pilkington (2009) argued, “with adequate screening and a sufficiently large sample,
citation analysis can provide useful insight into which journals, papers, and authors are considered influential” (para. 1).

From “Which articles and authors are highly cited in the field of educational administration?” our question evolved into an examination of who educational administration researchers, are citing, and thus, by assumption, reading, and incorporating into their graduate coursework. The references cited in a leading research journal in the field were examined to determine if discernable patterns or trends in citations existed. Data pertaining to additional measures of impact were also examined, including those data from a tracking system that indicates the number of times a Portable Document Format (PDF) is retrieved and how often the journal’s publication site is accessed.

Background Literature

The American Association of School Administrators (1993) wrote “Traditional university and state certification programs have been the target of criticism because of their perceived lack of focus on the future roles, knowledge, and skill base necessary for superintendents” (para. 16). Such statements emphasize traditional disputes over the educational administration knowledge base. Donmoyer, Imber, and Scheurich (1995) posited that a knowledge base “can ground and legitimate professional work” (p. 2). Specifically, referring to the field of educational administration, Scheurich (1995) described the knowledge base as “the core knowledge, or the canon, that every member of the profession should know” (p. 18). According to Scheurich, a knowledge base,

standardizes the profession in that all of its members are certified to have mastered this canon. It also standardizes the training necessary to become a member of the profession in such a way that it does not matter in which institution a person receives her or his training; she or he will receive basically the same training, at least within some acceptable range of difference. (p. 18)

Scheurich wrote, however, that there was “no acceptable justification for supporting a knowledge base in educational administration” (p. 21) and that “the general public is much less concerned about the stature of educational administration, either as a professional discipline in the university or within the context of all professions, than it is concerned about the success of the public schools” (p. 25). Lunenburg’s (2011) opinion differed. He posited, “one of the best criteria of a profession is that it has matured as a science. . .developed a solid theoretical base—a body of organized and tested knowledge. Such is the case with educational administration as a social science” (p. 8).

Debate on the knowledge base issue may never cease. For example, Styron, Jr., Maulding, and Hull (2006) wrote that some people debate that “those with field experience make better instructors because they can relate theory to practice” (para. 4) while others “argue that those with field experience have no desire to acknowledge theory; they come to the university to be semi-retired, and bore their students with ‘war stories’” (para. 4).
National Council of Professors of Educational Administration

Since the 1940s, the National Council of Professors of Educational Administration (NCPEA) has served as a network for professors of educational leadership (Murphy, Young, Crow, & Ogawa, 2009). The organization has a membership of approximately 600; members represent higher educational institutions from across the United States and draws international members from countries such as Australia, England, and Saudi Arabia (J. Berry, personal communication, 2011). NCPEA, an active professional organization that supports robust publishing activity, sponsors regular professional conferences, conducts sponsored research, and advocates for the profession on behalf of its members. For these reasons, the authors elected to use a NCPEA publication for their research efforts.

The National Council of Professors of Educational Administration has a history of sponsoring four peer-reviewed publications: International Journal of Educational Leadership Preparation (IJELP); Education Leadership Review (ELR), Mentoring and Tutoring: Partnership in Learning (M&T), and the annual NCPEA Yearbook. According to the organization’s website, a fifth publication, NCPEA Policy Briefs, debuted in February of 2012 (http://www.ncpeapublications.org). Recently, NCPEA has begun publishing eBooks, printing the publications on demand (T. Creighton, personal communication, 2012). The authors selected the International Journal of Educational Leadership Preparation as the NCPEA publication targeted for this research.

International Journal of Educational Leadership Preparation

International Journal of Educational Leadership Preparation is a scholarly, electronic journal published by NCPEA four times a year. The journal solicits for publication articles about research and practice in the field of educational administration. The articles are grouped into domains; all submissions are blind, peer-reviewed, and edited prior to publication.

IJELP is an open educational resource. Open Educational Resources (OER) are “teaching and learning materials that you may freely use and reuse, without charge” (“What are open educational resources,” n. d., para. 1). For OERs, a reader may simply download, share, and use the resources. Others can be downloaded, edited, and reposted as a “remixed work” (“What are open educational resources,” para. 1). IJELP, a research journal, sustains the expansive foundation of the educational administration field.

Connexions

Elmore (2008) posited that those individuals who want to modify educational leadership practice are confronted with how to make the subject matter and teaching of educational leadership “match the aspirations of reformers, and how to make powerful new ideas about the practice of leadership in the sector accessible to a broader audience of individuals and institutions than the current collection of innovative, but marginal, providers” (para. 6). The Connexions Project was created in 1999 by Burrus and Baraniuk from Rice University (Farmer & Sackett, 2009). Connexions, according to its creators, “is one such innovative forum for collecting, organizing, and sharing educational data” (para. 1).

Connexions is a “dynamic digital educational ecosystem consisting of an educational content repository and a content management system optimized for the delivery of educational
content” (“About us,” n.d., para. 1). The site has more than “17,000 learning objects or modules in its repository and over 1000 collections (textbooks, journal articles, etc.) . . .used by over 2 million people per month” (About us, para. 1). A free to use site, Connexions contains content from a variety of disciplines.

Murphy, Young, Crow, and Ogawa wrote in 2009 that NCPEA is likely to impact educational leadership via two main means: strengthening “university faculty networks by creating state affiliates in many regions” (pp. 10-11) and through the facilitation of the “online open-access publishing site they have developed in collaboration with researchers at Rice University” used to “share research in progress as well as course materials” (p. 11). IJELP, published and accessed via the Connexions web site, is an open-access publication. IJELP was created in July 2008 as the “formal, online journal of the NCPEA Connexions Project” (Farmer & Sackett, para. 12). Contributors and other users alike can access IJELP articles and other materials for free from the Connexions web site. The aim of the NCPEA/Knowledge Base Connexions Project is to “add to the knowledge base of the educational administration profession” and “aid in the improvement of administrative theory and practice, as well as administrative preparation programs” (NCPEA Project Executive Editorial Board, p. 8; NCPEA website, 2005, as cited in Mullen, 2006). Authors can publish in Connexions without NCPEA, but must go through NCPEA to receive the organization’s endorsement (Personal communication, T. Creighton, 2012).

Impact Factor

NCPEA uses FastTrack as a reviewing tool. FastTrack streamlines the review process. The tool is “a fully automated web-based manuscript management and tracking service” (“The NCPEA Connexions Project,” n.d., p. 1). When a module is accepted for publication it is also published in IJELP (“The NCPEA Connexions Project,” n.d.).

Software is utilized by NCPEA to track the number of times a PDF is accessed, allowing articles published to be tracked individually and examined for impact. Some journals collect data on how often the journal or article has been referenced. IJELP, however, is “focused on the author. . .our numbers reflect individuals’ manuscripts” (T. Creighton, personal communication, 2012). Authors can monitor the frequency with which their article is accessed.

NCPEA utilizes Google Analytics to measure the traffic that the organization’s endorsed publications receive. The application disaggregates website visitor data to show user’s geographical locations and how they arrive at the site. IJELP publishers can monitor the cities, states, and countries of the individuals accessing the site.

IJELP assists professors seeking to document their scholarly research. Upon publication, authors are sent a letter, indicating data about the contribution’s impact to show tenure and promotion committee members the impact the article is having, as indicated by the tracking system (T. Creighton, personal communication, 2012).

Methods

The data source for this study included a compilation of research articles published in International Journal of Educational Leadership Preparation as well as individual article and web site statistics. The references of articles published were examined to better comprehend
the discipline's citing of its own works; article and site data provided information pertaining to impact factor.

The act of counting citations is often called citation analysis. Authors of the article “Citation Analysis” (2010) discussed the importance of citation analysis to “gauge the importance of a publication by counting the number of times it has been cited by other scholars” (para. 1). Citation analysis involves calculating the “number of times an article has been cited in published research,” thus allowing the researcher to “gain information about that article's impact on its discipline. If an article has a high number of citations, you may conclude that it has been the subject of discussion or criticism in its discipline” (“Citation Analysis,” para. 1).

Richardson and McLeod (2009) found in their study “Where Should Educational Leadership Authors Publish to Get Noticed by the Top Journals in the Discipline?” that discovering “citation patterns noted in the current article will help authors consider issues of spread and replicability when seeking suitable outlets to publish their scholarly work” (para. 1). This process is also referred to as bibliometric analysis. Bibliometric analysis involves a documentation of “the publication patterns of authors in terms of the citations they receive as well as whom they cite in their own published work” (Heberger, Christie, & Alkin, 2010, p. 25).

Authors who cite other educational administration researchers are participating in a type of boost factor. Citing another researcher acts to boost his or her research, expanding its readership. A similar phenomenon occurs in the scientific and invention community:

> groundbreaking discoveries of Nobel Prize Laureates and other famous scientists are not only acknowledged by many citations of their landmark paper. . .they also boost the citation rates of their previous publications. Given that innovations must outcompete the rich-gets-richer effect for scientific citations, it turns out that they can make their way only through citation cascades. (Mazloumian, Eom, Helbing, Lozano, & Fortunat, 2011, para. 1)

The top ten authors cited in the International Journal of Educational Leadership Preparation were boosted by others in the profession.

Heberger, Christie, and Alkin (2010) wrote than “bibliographic citations can be thought of simply as reference lists” (p. 25). Bibliometric studies “have been conducted in many fields and in many countries to better understand the influence of their scholars’ work” (Heberger et al., p. 25). Miller, Stewart, and West (2006) acknowledged the need to review literature and analyze citations to uphold the significance of the discipline’s research agenda. Those who write and publish in the field of education are those authors who influence the knowledge base as they are read and cited in scholarly venues. Since IJELP is a leading NCPEA journal we thought it important to examine who was being cited.

References were compiled and analyzed from 5 years of IJELP articles (2006-2010) to identify the most frequently cited authors in IJELP. The citations were sorted, categorized, and ranked to reveal the top ten IJELP referenced authors.

Once the leading cited authors were identified, it was deemed essential to determine the number of times the publication was accessed and how frequently individual articles were retrieved. Their published articles were reviewed to ascertain whether those being cited in IJELP the most contributed back to the journal also authored other journal submissions. Data
pertaining to additional measures of impact were also inspected, including article/module retrieval and publication site access frequency data.

Findings and Discussion

Use of *IJELP* as a source of data for the research proved to be a rich source of metrics for the study. The numbers of citations were sufficient to establish a creditable level of significance and to identify several trends in the data.

Almost 300 articles were published in *IJELP* from 2006-2010. The articles’ references were examined to determine the individuals or organizations that are most present in the articles’ references in an attempt to ascertain whose voices are contributing to the knowledge base. Along with the knowledge base contributors it was also important to look at how widely read *IJELP* articles are. If no one is reading or retrieving the articles, they will not be read and thus a list of references would prove pointless.

Author Citations

The researchers retrieved the 291 articles that were published in the *International Journal of Educational Leadership Preparation* from 2006 through 2010. Disaggregable citation references from those articles were assembled into a database for analysis. These scholarly peer-reviewed articles contained 7,292 cited references. The 7,292 references do not represent discrete citations of scholarly work. The analysis showed that the authors’ works published in the journal had patterns of repetition. Multiple citations and references to scholarly works by certain researchers were apparent. In other words, certain authors were cited as experts multiple times in many articles over the 5-year period.

Lunenburg and Ornstein (2008) posited, “A person’s professional background and knowledge base determines his or her view of what is essential or secondary in education” (p. 415). One of the most prolifically cited authors was an organization (Texas Education Agency). Of the nine individuals cited, three had earned doctoral degrees in educational administration/leadership, two in curriculum and instruction or supervision, one in sociology, one in urban education, one unlisted (Leithwood), and an additional one in management.

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Hines (2007) wrote,

> The dissertation is a significant knowledge based component of doctoral programs of educational administration. But some members and students of the profession view the dissertation as a segue into higher pay and recognition in society. While the dissertation does symbolize power, privilege, and prestige, this unilateral value counters original value of the scholarly work. (para. 54)

One organization and one female were present in the top ten group of those most frequently cited. All others (8) were male. No references to past PK-12 experience could be found for three of the cited authors. Four had teaching experience without school administration experience; one had vast school administration experience and one served as a teaching principal. Regardless of employment history or educational background, these authors affect the educational administration/knowledge base as we know it. Further, regardless of the beliefs, of those cited, whether authors agree or disagree with the researchers...
or their prolificacy, those cited are the people who are contributing to the knowledge base. Those most oft quoted are the ones whose beliefs and findings are being relayed via references in the works of others. Whether their work is being used to support or negate current research in the field, theirs are the findings and ideas that are being discussed, and, in the realm of educational leadership, that to which other work is compared. The following ten authors/organizations were the most cited over the 5-year period examined.

**Joseph Murphy**

Joseph Murphy is the Chair of Education and the Associate Dean of Peabody College at Vanderbilt University. He was the most prolifically cited author during the years studied. Murphy has published over 200 articles in the field of leadership and policy and school improvement and has written or co-written 21 books and edited 12 others (“Joseph F. Murphy,” n. d.). Murphy earned a Ph.D. in Educational Administration and Public Finance from the Ohio State University. In the public schools, Murphy has past experience as a school administrator (“Vita, Joseph Murphy,” n. d.).

**Texas Education Agency**

The Texas Education Agency (TEA) was the second most frequently cited during the years examined. TEA’s mission is to “provide leadership, guidance, and resources to help schools meet the educational needs of all students” (TEA, 2011, para. 1). TEA may have earned a second place listing due to the large number of Texas authors that appear in the *International Journal of Educational Leadership* Preparation. According to its own website, TEA “comprises the commissioner of education and agency staff. The TEA and the State Board of Education (SBOE) guide and monitor activities and programs related to public education in Texas” (para. 3).

**Michael Fullan**

Michael Fullan, the third most cited author in *IJELP*, has served as professor emeritus of the Ontario Institute for Studies in Education at the University of Toronto. He has experience as a special advisor to the Premier and Minister of Education in Ontario and holds honorary doctorates from the University of Edinburgh, Scotland, and Nipissing University in Canada (“Biography,” n. d.b). He has a doctorate in sociology from the University of Toronto (Sparks, 2003). No school teaching or administrative experience was located for Fullan.

**David T. Gamage**

David Gamage is an associate professor at the University of Newcastle, Australia. Gamage is the fourth most frequently cited author; his background includes work in public administration, economics, political science, international affairs, and educational administration. He earned a Ph.D. in Educational Administration from La Trobe and has published five books, 17 book chapters, and more than 100 articles. His educational work experience includes serving as a teaching principal (“Assoc. Professor David T. Gamage,” 2008).
Robert J. Marzano

Robert Marzano, the fifth most frequently cited author in the years studied, is the cofounder and CEO of Marzano Research Laboratory. He has served as a speaker and is the author of more than 30 books and 150 education-related articles. Marzano’s doctorate in Curriculum and Instruction is from the University of Washington. His past public school experience includes service as an English teacher and department chairperson (“About Dr. Marzano,” 2009; “Education and Experience,” 2009).

Kenneth Leithwood

Kenneth Leithwood has served as a professor of Educational Leadership and Policy at OISE/University of Toronto and was identified as the sixth most frequently cited author. He has written on the topics of educational policy, organizational change, and school leadership. Leithwood has published more than 70 journal articles, and authored or edited more than 30 books (“Ken A. Leithwood,” n. d.). He received his Ph.D. from the University of Toronto. No public school teaching or campus administrative experience was located for Leithwood.

Thomas J. Sergiovanni

Thomas Sergiovanni served as the Lillian Radford Professor of Education at Trinity University, San Antonio, Texas, and is number seven on the most frequently cited list. Sergiovanni received his Doctor of Education degree in Educational Administration from the University of Rochester. He was a prolific author whose work includes multiple books. Sergiovanni served as a teacher and science consultant (“Biography,” n. d.a).

Francis (Frank) M. Duffy

Frank Duffy has served as a professor of Change-Leadership in Education at Gallaudet University in Washington, DC and is number eight on the most frequently cited list. He is the founder and president of The F. M. Duffy Group. Duffy has written several books on whole-system change in school districts. He served as a high school special education teacher and earned a Ph.D. in Curriculum and Supervision from the University of Pittsburgh (“Frances [Frank] M. Duffy, Ph.D.,” n. d.).

Linda Darling-Hammond

Linda Darling-Hammond has served as the Charles E. Ducommun Professor of Education at the Stanford University School of Education, where she commenced the School Redesign Network and the Stanford Educational Leadership Institute. Darling-Hammond is author or editor of more than 300 publications and tied Peter Senge for the ninth most cited author position. Her Ed.D. in Urban Education was earned at Temple University; she has served as a teacher (“Darling-Hammond, Linda,” 2012).
Peter M. Senge

Peter M. Senge has served as a senior lecturer at the Massachusetts Institute of Technology and as founding chair of the Society for Organizational Learning. Senge is the author of multiple books including *The Fifth Discipline: The Art and Practice of the Learning Organization* and *Presence: Human Purpose and the Field of the Future*. His Ph.D. in Management is from MIT (“Peter Senge,” 2012). No public school teaching or campus administrative experience was located for Senge.

**Knowledge Dissemination**

Discovering who is being cited and to what extent is important, but so is knowing how widely distributed are the journal itself as well as its individual articles. *IJELP* is distributed in a way that allows the impact factor of individual articles to be measured. *IJELP’s* publishers can determine how widely the publication’s articles are distributed by collecting data pertaining to readers’ locations and how many and how often the articles are read, all factors that address impact. *IJELP* is viewed by approximately 3,000 readers each month. Readers come from all 50 states and 60 countries (T. Creighton, personal communication, 2012). *IJELP* abstracts are translated into Spanish to, thus increasing its impact.

OER Commons was designed by the Institute for the Study of Knowledge Management in Education (ISKME) to assist learners in their search to find resources that have been posted elsewhere online. “Traditional journals often diminish in readership as the journal ages; *IJELP* is more dynamic and because of OER actually increases in readership as time goes on” (T. Creighton, personal communication, 2012). OER Commons:

> is not a search engine (like Google) and it is not a list of links. This site is a structured database of links to high-quality resources found on other websites. OER Commons provides a single point of access through which educators, students, and all learners can search, browse, evaluate, and discuss over 30,000 high-quality OER. (“What are open educational resources,” n. d., para. 2)

The impact of OER Commons is vast, as they have joined with more than 120 content partners. Learners can retrieve more than 30,000 items. “By being ‘open,’ these resources are publicly available for all to use, and principally through Creative Commons licensing, many thousands are legally available for repurposing, modifying and improving” (“What are open educational resources,” n. d., para. 7). The underlying premise of OER is “equitable access to high-quality education is a global imperative” (“What are open educational resources,” n. d., para. 8). With Connexions an OER content partner, OER is filtered for scholarly contributions to the preparation and practice of education administration (T. Creighton, personal communication, 2012).

**Impact Factor**

It is important for those considering where to submit a manuscript to be aware of the readership of journals. NCPEA also uses Google Analytics to measure traffic that the publications site experiences. As of September 2012, the site had 1,482 user visits per month,
up from 1,239 from the previous September. From October 1, 2011, to September 30, 2012, the web site had 14,767 visitors, of which 10,190 were unique visitors. There were 11,869 visits (80.38%) to the site by individuals from the United States, 462 (3.13%) from the Philippines, and 231 (1.56%) from India. The site experienced 52,172 page views and visitors averaged 3.53 page views per visit. The average visit was 2 minutes and 32 seconds in duration; this short time may be attributed to visitors locating and downloading an article or module, then logging out of the site. According to Vockell, Asher, Dinuzzo, and Bartok (1994),

> An understanding of how research is disseminated can help users of research identify sources in which they are likely to find current information on educational topics. In addition, a knowledge of dissemination patterns will help researchers identify channels for publishing the results of their research. (para. 1)

From the top 10 referenced authors cited, 7 of the 10 had, as of August 2012, authored no articles or modules for Connexions/IJELP (TEA, Fullan, Marzano, Leithwood, Sergiovanni, Darling-Hammond, and Senge). Murphy authored “PERSPECTIVE: Of Dubious Efficacy—Questioning the Core of University-based Preparation Programs for School Leaders” in 2006. As of August 2012, his contribution had received 2,424 views (1.16 per day) and was ranked 13,857. Gamage authored four published submissions, ranging from 2,115 to 47,521 total views (1.57 to 22.59 views per day). His articles ranked 10,523, 7,837, 865, and 464. Duffy authored 13 modules and 2 collections, ranging from 1,034 to 24,079 total views (0.90 to 10.63 views per day), ranking from 16,569 to 1,326.

**RECOMMENDATIONS FOR FURTHER RESEARCH**

Future research should analyze authors’ agreement or disagreement with the researchers or agencies they cite to determine whether research being referenced is being used to support or refute current findings. A qualitative research approach might best be employed in this case. Such a study would allow the researchers to examine the publications of the most cited authors for any common themes that may be present across their scholarly output represented in IJELP submissions.

**SUMMARY**

In a 2006 article that was posted in Connexions, Dembowski wrote, “a comprehensive plan for the dissemination of best practices requires the following policy and procedural decisions to be made” (para. 11). In his list Dembowski asked, “What is the purpose of CONNEXIONS?” After examining the readership of IJELP, the authors of this article believe that Connexions serves as a forum of distribution and as a framework in which to share content knowledge and widen and further explore the educational administration/leadership knowledge base. Dembowski’s question, however, may not ever be answered definitively because as technological platforms and interfaces evolve, Connexions and the publications it hosts will likely change in an attempt to meet the needs of its readership.
According to the National Policy Board for Educational Administration (Thomson, 1993),

The arena in which today's principals work is constantly being reshaped by societal forces and conditions. Static patterns are out; so, too, is the notion that solving today's problems automatically prepares candidates for future challenges. Accordingly, the preparation of school leaders should focus on the development of a broadly applicable knowledge and skills base that is timeless and that emphasizes knowledge and skill development rather than particular problems of practice. (p. xi)

Kennedy (1997) wrote, “In the world of scholarship, we are what we write” (p. 186). Whether or not one argues that a knowledge base in Educational Administration exists, researchers in the field continue to publish and, by doing so, expand the content of the discipline and thus influence other educators in the field. This analysis has revealed that patterns of thought about educational administration exist and form a basis for concluding that there is a de facto knowledge base in the discipline and that thousands of users are accessing one such leading publication of the knowledge base.

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