Contemporary Educational Psychology 35 (2010) 11–16

Contents lists available at ScienceDirect

Contemporary Educational Psychology

journal homepage: www.elsevier.com/locate/cedpsych

Productivity in educational psychology journals from 2003 to 2008

Sara J. Jones, Carlton J. Fong, Laura G. Torres, Julia H. Yoo, Mark Lowry Decker, Daniel H. Robinson *

Department of Educational Psycology, University of Texas at Austin, Austin, Texas, United States

ARTICLE INFO

Article history:
Available online 9 August 2009

Keywords:
Productivity
Publishing
Journals
Educational psychology

ABSTRACT

Productivity of individuals and institutions in educational psychology journals has been previously examined in three separate studies (Hsieh et al. [Hsieh, P., Acee, T., Chung, W., Hsieh, Y., Kim, H., Thomas, G. D., et al. (2004). An alternate look at educational psychologist's productivity from 1991 to 2002. *Contemporary Educational Psychology, 29*, 333–343]; Smith et al. [Smith, M. C., Locke, S. G., Boisse, S. J., Gallagher, P. A., Krengel, L. E., & Kuczek, J. E., et al. (1998). Productivity of educational psychologists in educational psychology journals, 1991–1996. *Contemporary Educational Psychology, 23*, 173–181]; [Smith, M. C., Plant, M., Carney, R. N., Arnold, C. S., Jackson, A., Johnson, L. S., et al. (2003). Further productivity of educational psychologists in educational psychology journals, 1997–2001. *Contemporary Educational Psychology*, *28*, 422–430.]) spanning the years 1991–2002. The present study updates this literature by examining the same five journals: *Cognition and Instruction*, *Contemporary Educational Psychology*, the *Educational Psychologist*, *Educational Psychology Review*, and the *Journal of Educational Psychology* from 2003 to 2008. Individual productivity was calculated by the number of (a) articles published and (b) points based on a formula that considers author position in relation to the number of authors. The University of Maryland and Richard E. Mayer maintained their positions as the top research institution and author, respectively. There was also growth in collaboration as well as international involvement as measured by number of authors.

1. Introduction

Over 10 years ago, Smith et al. (1998) published the first study of individual and institutional productivity in five educational psychology journals: *Cognition and Instruction* (C&I), *Contemporary Educational Psychology* (CEP), the *Educational Psychologist* (EP), *Educational Psychology Review* (EPR), and the *Journal of Educational Psychology* (JEP). Since then, two more studies have appeared (Hsieh et al., 2004; Smith et al., 2003), spanning the years 1991 to 2002. Why should we be interested in productivity? Even with the increasing emphasis on quality teaching, publications in refereed journals remain a key factor in university promotion and tenure decisions (Wilson, 2001). In 1994, deans and chairs of education departments listed such publications as the top factor in making tenure decisions (Marchant & Newman, 1994). They also found that an institution's increased emphasis on publications was associated with greater student diversity, more masters degrees granted, more library resources, and increased money for development (Marchant & Newman, 1994). With this in mind, productivity is an important consideration when choosing a university for graduate study or future job opportunities.

In terms of individual productivity, traditionally, single and first-authored publications have received more weight than secondary authorships (Smith et al., 1998, 2003). However, the benefits of collaboration during the publication process have been documented across academia (Smart & Bayer, 1986) and multi-authored publications are increasing (Cronin, Shaw, & La Barre, 2003; Endersby, 1996). In response to this trend, recent productivity studies have used two different ways to define productive authors. Smith et al. (1998, 2003) used a formula that gives weighted credit to authors depending on authorship order. This procedure values single and first-authored publications more than secondary authorships based on an assumed difference in authors' contribution to an article (i.e., authors listed first are assumed to contribute more than authors listed later). The formula is an effective technique for calculating institutional productivity (i.e., simple article counts per author would be misleading if there were multiple authors on articles from the same institution). However, for calculating individual productivity, such a formula may discourage authors interested in being recognized for their individual productivity from including co-authors because of the reduced point totals.

In an attempt to reposition the concept of productivity, Hsieh et al.'s (2004) method of determining individual productivity was developed to recognize authors who choose to collaborate rather than fly solo. Hsieh et al. ranked the top authors based simply on total number of articles authored, regardless of author position. This method eliminates any issues with how authorship order is

* Corresponding author. Address: Department of Educational Psychology, SZB 504, University of Texas at Austin, Austin, TX 78712-1296, United States.
E-mail address: dan.robinson@mail.utexas.edu (D.H. Robinson).

0361-476X/$ - see front matter © 2009 Elsevier Inc. All rights reserved.
doi:10.1016/j.cedpsych.2009.08.001

assigned. Even with APA guidelines, order of authorship is a complex issue (Costa & Gatz, 1992; Moore & Griffin, 2006). The problem can be exacerbated by the power inequality when faculty and students collaborate on research (Fine & Kurdek, 1993).

In the present study, we created two individual productivity lists with data from 2003 to 2008 so that readers can judge for themselves which approach may be a more accurate measure of productivity. In addition, we examined institutional productivity, numbers of authors per article, and articles authored by international scholars. Why examine international authors? Over the last decade, contributions to these five journals by authors outside the US have increased. Welcoming the broader perspective international authors add to the field, similar to collaborative vs. individual efforts, our findings include an analysis of international trends and authors per article.

2. Method

We examined all articles (except erratums/corrigendums) published in the five journals from 2003 to 2008. We coded author names and institutions, placement in authorship order, and number of authors for each article. We calculated individual productivity using both the Hsieh et al. (2004) method of counting total articles and Smith et al.'s (1998, 2003) productivity point formula for each individual author. The formula, used previously by Smith et al. (1998, 2003), is:

$$Credit = (1.5n - 1) \Big/ \left(\sum_{i=1}^{n} 1.5i - 1 \right) \quad (1)$$

where n is the total number of authors for a particular article and i is the individual author's ordinal position.

We included the top 25 most productive authors (more if there were ties). To gather more information about the top authors' productivity and to verify our findings, we emailed the authors requesting their current vita. For each of the studies that were published in the five journals from 2003 to 2008, the top 25 authors were also asked to identify graduate student co-authors at the time the study was conducted. For example, Richard Anderson had a total of 23 graduate student co-authors on the eight articles he published in our five selected journals. He also published 14 articles in other journals during the 6-year period, and likely had more graduate student co-authors, but these were not counted for the purposes of this study.

For each of the top authors, the average number of authors per article was calculated, as well as a total number of graduate student co-authors. "Total Articles" in Tables 1 and 2 includes all of the authors' articles from the five journals regardless of author position. From the five journals, we also included a count of authors' publications that were classified as "Non-Research" (e.g., editorials, introductions, interviews, book reviews, and memorandums). From their vita, we counted the number of "Other Articles" the top authors published from 2003 to 2008 in any journal other than the selected five, to determine whether authors targeted mainly the educational psychology journals or published more in outside journals. This number is displayed in the "other articles" column of Tables 1 and 2.

Institutional productivity was calculated using the Smith et al. (1998, 2003) point system. The data were sorted by institutional affiliation, point totals for each were calculated, and the top 20 institutions were listed. For example, there were 11 authors from the University of California, Berkeley with six single-authored publications (6 points; 1 point each), two first authors of two-author publications (1.2 points; 0.6 points each), two second authors of two-author publications (0.8 points; 0.4 points each), and one second author of a three-author publication (0.32 points). Therefore, the total points for UC Berkeley is 8.32. We also computed the average number of authors per article per year and journal from 2003 to 2008. Finally, we calculated the percent of authors who reported an institutional affiliation outside the US by year and journal to assess the involvement of international authors.

3. Results and discussion

3.1. Individual productivity

A total of 892 articles were published in the five journals (CEP, JEP, EP, EPR, and C&I) from 2003 to 2008 and listed 2290 authors. Tables 1 and 2 display the most productive authors with their rankings from previous time periods. Table 1 ranks authors according to Hsieh et al.'s (2004) counting method, whereas Table 2 ranks authors based on Smith et al.'s point system. Slight differences in the ranking criteria may account for some inconsistencies. Whereas Smith et al. (1998, 2003) did not include articles such as editorials and book reviews, we chose to include any published work that appeared in the journal. Overall, the number of non-research articles was low compared to authors' total articles. One notable exception is Michael Shaughnessy whose articles were all interviews with educational psychologists, many of whom appear in these lists.

Based on total articles, Richard E. Mayer was once again the most productive author. Mayer has continued his high productivity level in these five journals over the past 18 years. From 1991 to 1996, he authored 15 articles; from 1997 to 2002, 22; and from 2003 to 2008, 16. Herbert Marsh has also been consistently productive with 13, 12, and 15 articles in the three 6-year periods, as have Patricia Alexander, Joel Levin, and Gregg Schraw who have appeared in the lists for three consecutive periods.

Not surprisingly, there is much overlap between the two lists whether defining productivity by articles or points. Alexander, Levin, Marsh, Mayer, and Schraw have appeared in the points lists in all three periods. However, similar to the findings of Hsieh et al. (2004), there were some individuals who made the most recent points list, but not the articles list, and vice versa. Individuals who publish in the five journals mainly as sole or first authors, with few co-authors, are more likely to make the points list. Nine such authors made the points list but did not author enough articles to also make the articles list. These authors averaged less than two authors per article, had at least two single-authored articles, and had either one or zero graduate student co-authors. In contrast, for those 19 authors who made the articles list, but not the points list, all but one averaged over two authors per article, all but one had one or zero single-authored articles, and averaged six graduate student co-authors.

Although journal publications were previously mentioned as a major consideration for promotion and tenure decisions, some authors who appear on our list of the most productive authors in educational psychology journals, may not publish enough to secure tenure and promotion at a major research university where the expectation is at least two to three articles per year. For the 6-year period, eight authors from the points list and five authors from the articles list published 12 or fewer articles in the five educational psychology journals and other journals combined. Of course, universities consider other factors besides simple article counts, such as the type and quality of the article and journal, and, perhaps not surprisingly, an author's contribution. We did not assess the quality of either the articles or the "other journals" where they appeared. However, we did assess authorship order. Perhaps for those authors who do not author at least two to three articles per year, authorship order (a measure of contribution) is important not only for appearing in such productivity lists but also for merit and promotion considerations.