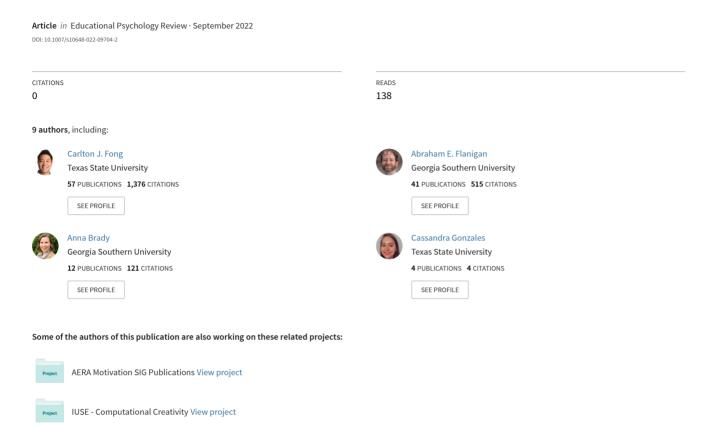
# Individual and Institutional Productivity in Educational Psychology Journals from 2015 to 2021



#### **REFLECTION ON THE FIELD**



# Individual and Institutional Productivity in Educational Psychology Journals from 2015 to 2021

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# **Abstract**

This study updates and extends prior work on institutional and individual productivity in educational psychology journals (Cognition and Instruction, Contemporary Educational Psychology, Educational Psychologist, Educational Psychology Review, Journal of Educational Psychology) from 2015 to 2021. As in previous studies, the University of Maryland, College Park, was the top-producing institution. Several universities (e.g., University of Tübingen) emerged as highly productive compared to previous time periods. Using two approaches to measure individual productivity, we found that Richard Mayer, Ulrich Trautwein, Fred Paas, Patricia Alexander, and Logan Fiorella claimed the top spots. We also identified productive early career scholars and, for some, recognized connections to productive doctoral advisors. Overall, compared to prior years, authors of educational psychology journal articles were increasingly working from non-US institutions and in larger teams (higher mean number of authors per article). A discussion of these trends and future directions for research are included.

 $\textbf{Keywords} \ \ Educational \ psychology \cdot Productivity \cdot Publishing \cdot Collaboration \cdot International \cdot Early \ career$ 

Publishing in high-quality journals remains an undisputed indicator of scholarly productivity in a vast majority of academic disciplines, including educational

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psychology. From faculty tenure and promotion guidelines to award criteria set by scholarly organizations, the quality and quantity of a scholar's peer-reviewed journal articles are defining characteristics of intellectual merit and contribution to the field.

In the present study, we examined articles published in five journals previously identified as being representative of the field of educational psychology (*Cognition and Instruction*, *Contemporary Educational Psychology*, *Educational Psychologys*, *Educational Psychology* from 2015 to 2021, extending prior work by Smith et al., (1998, 2003), Hsieh et al. (2004), Jones et al. (2010), and Greenbaum et al. (2016). The questions we sought to answer were as follows: (a) Which institutions are the most productive? (b) What is the relative scholarship produced by US and non-US institutions? (c) Which scholars are the most productive? (d) Which early career scholars are the most productive? and (e) Is educational psychology scholarship becoming more collaborative?

# **Research on Productivity**

There are several reasons why examining trends in productivity might be useful to a field. First, identifying top-producing authors may help future graduate students or postdoctoral researchers identify mentors with whom they may choose to work (i.e., ones who regularly publish with mentees who also serve as first authors). Second, identifying top-producing institutions can also be helpful for those future students and scholars who desire to learn and work in a productive environment. Third, because fields like educational psychology benefit by becoming more diverse (DeCuir-Gunby & Schutz, 2014; Lopez, 2022), international involvement in journal publications is important to consider as one indicator of diversity. Previous studies have documented an increase in international (non-US) representation among educational psychology journal authors (Greenbaum et al., 2016; Jones et al., 2010). Finally, the average number of authors per article is one indicator of the collaborative nature of a field. Within educational psychology journals, Jones et al., (2010) found that the average number of authors per article had increased from 2004 to 2009, signaling that the field of educational psychology is growing more collaborative over time. We extended the work in these previous studies to examine each of these indicators.

Quantifying individual scholar productivity can be an elusive and contentious issue. In previous studies, two common approaches have been used. The first approach considers authorship position, so that the higher the position, the more points are awarded (Smith et al., 1998, 2003). Each article is worth one point and the authors, based on their position, proportionately divide the single point among themselves according to the following formula by Howard et al. (1987),

credit = 
$$1.5^{n-1} / \sum_{i=1}^{n} 1.5^{n-1}$$
,

where n represents the number of authors and i is a given author's ordinal position. Although this first approach may account for the relative contribution of each author



and avoids attempts to "game the system" by simply adding on more co-authors, it also essentially punishes scholars who choose to collaborate with several other individuals and may be especially punitive to those who choose to put their mentees ahead of themselves in authorship order.

A second approach designed to complement the first approach is based simply on the number of articles authored regardless of authorship position. This count-based approach might better identify productive scholars who publish in larger teams or choose lower authorship positions to allow junior scholars to have higher authorship positions (Hsieh et al., 2004). We included both methods in the present study, acknowledging different ways of quantifying productivity. It is also important to note that some fields define authorship contribution and position differently. Whereas some fields may treat the first-author position as the most important and representing the largest contribution, other fields confer the last-author position to be meaningful as it can represent the supervisor's role (e.g., medicine). Although it is virtually impossible to determine which authorship model might be used for any given article, we explored "first author" and "last author" metrics in our study to examine this issue further.

# Method

We examined all issues of Cognition and Instruction, Contemporary Educational Psychology, Educational Psychologist, Educational Psychology Review, and Journal of Educational Psychology from 2015 to 2021. As previously mentioned, these five journals were selected because they have been used in prior productivity studies, which allows for comparisons across time. The present study focused on 6 years' worth of educational psychology journals, whereas previous productivity studies examined journals from shorter time periods.

We extracted and coded all articles (e.g., empirical studies, reviews, editorials, commentaries) except errata from the five journals. There was a total of 1658 articles and 5640 authors. The following information was extracted from each article: publication year, author names, institutional affiliations, and authorship order. Affiliations were further coded as US or other countries.

We calculated two productivity scores for every author: (1) a count score derived by a simple count of the number of articles authored; and (2) a point score using the formula. Based on these scores, we created two lists each of top scholars and earlycareer scholars who received their doctorate in 2012 or later.

We then contacted scholars who appeared in the four lists and requested their curriculum vita, so that we could verify calculations from our database and also determine the year they received their doctorate, their current institution, and the number of articles published in other journals than the five journals of interest. Two scholars did not respond, so we gathered the information from their academic profile webpages — Google Scholar, ORCID, and/or ResearchGate. We also determined the number of sole-authored articles, first-authored articles, and last-authored articles



from 2015 to 2021 in the five journals of interest. We then emailed the results to the scholars for a final verification of their information.

We calculated institutional productivity scores using only the point method, to reflect the proportion of points achieved by a particular institution rather than the total number of articles authored which would be artificially inflated by having multiple authors from the same institution on a given article. If authors listed multiple institutional affiliations in the article, we used the first affiliation as the primary institution. To compare productivity for US versus international institutions, we also used the point method to determine the proportion of scholarly contributions from each of these two groups. Lastly, we calculated the average number of authors for each article as a collaboration indicator for the field of educational psychology.

# **Results and Discussion**

# **Institutional Productivity**

Table 1 displays the 20 most productive institutions from 2015 to 2021, as well as previous rankings across four earlier studies. Among the 762 institutions whose scholars authored the articles in educational psychology journals from 2015 to 2021, the University of Maryland, College Park, replaced Vanderbilt University (second place) as the most productive institution. The University of Texas at Austin (third place) was the only other school to remain in the top five since the last ranking of institutional productivity (Greenbaum et al., 2016). Another notable entry among the top five institutions was the emergence of the University of Tübingen, which was the fourth-most productive institution, appearing in the top 20 for the first time.

An examination of Table 1 reveals several historical trends in institutional productivity. Four institutions have appeared in all five top 20 rankings since 1991: University of Maryland, Vanderbilt University, University of California, Los Angeles (UCLA), and University of California, Santa Barbara (UC Santa Barbara). Two institutions, The University of Texas at Austin and the University of New South Wales, have appeared in every top 20 ranking since the period between 1997 and 2001. In contrast, six institutions achieved their first top 20 ranking in this most recent time period: University of Tübingen, Australian Catholic University, Utrecht University, University of California, Irvine (UC Irvine), Stanford University, and The Ohio State University.

Comparing the total and yearly productivity scores obtained by the top 20 institutions in the present rankings with those calculated for the period from 2009 to 2014 indicates that the annual productivity has increased dramatically. For example, Vanderbilt University was the top-ranked institution for the period from 2009 to 2014 with a total productivity score of 19.43 across the 6-year period, which equates to an average yearly score of 3.24 points. The top institution in the present rankings, the University of Maryland, had a total productivity score of 38.93 across the current 7-year period, for an average yearly score of 5.56, which is 58% higher than the average yearly score earned by Vanderbilt University from 2009 to 2014 and still higher than the average yearly score from 1991 to 1996 for the University of



2015– 2021 rank	2009– 2014 rank	2003– 2008 rank	1997– 2001 rank	1991– 1996 rank	Institution	Score
1	2	1	1	1	University of Maryland, College Park (USA)	38.93
2	1	2	16	35	Vanderbilt University (USA)	26.69
3	4	7	22	nr	University of Texas at Austin (USA)	25.83
4	nr	nr	nr	nr	University of Tübingen (Germany)	24.45
5	20	17	25	nr	University of New South Wales (Australia)	24.39
6	9	nr	35	7	University of Pittsburgh (USA)	23.14
7	nr	nr	nr	nr	Australian Catholic University (Australia)	22.87
8	19	15	6	12	University of California, Los Angeles (USA)	22.79
9	nr	18	17	8	University of Wisconsin, Madison (USA)	21.17
10	13	6	3	5	University of California, Santa Barbara (USA)	20.85
11	nr	nr	nr	nr	Utrecht University (The Netherlands)	19.13
12	3	14	nr	3	Arizona State University (USA)	18.81
13	16	nr	32	34	University of North Carolina at Chapel Hill (USA)	17.84
14	nr	nr	nr	nr	University of California, Irvine (USA)	17.27
15	nr	nr	nr	nr	Stanford University (USA)	16.94
16	nr	nr	14	nr	University of Hong Kong (China)	16.38
17	12	nr	30	14	Florida State University (USA)	15.67
18	nr	20	5	20	University of Minnesota (USA)	15.28
19	nr	nr	nr	nr	The Ohio State University (USA)	15.05
20	18	3	nr	nr	University of Nevada, Las Vegas (USA)	14.96

nr, not ranked

Maryland (4.44). Similarly, the performance threshold to make the top 20 institutions list has increased since the period from 2009 to 2014. For the period from 2009 to 2014, the University of New South Wales ranked 20th with a total productivity score of 8.05 and an average yearly score of 1.34, which is considerably lower than the performance of this year's 20th ranked institution, the University of Nevada, Las Vegas (UNLV), with a total score of 14.96 and average yearly score of 2.13. Such figures suggest that the total and yearly volume of research output within the five educational psychology journals has increased considerably for the top 20 institutions since productivity was first measured 30 years ago.

#### International Trends

International involvement in the five educational psychology journals has continued its upward trajectory since the turn of the century. For the period from 1997 to 2001, 22% of the 342 institutions represented by authors publishing within the journals were non-US institutions. This figure increased to 50% from 2009 to 2014 and 60%



from 2015 to 2021. Yet, only five international institutions appeared within the top 20 rankings for the period from 2015 to 2021. Such findings indicate that, although US institutions occupy most of the slots in the top 20 rankings, a majority of the published work within these five journals is produced by authors working at non-US institutions.

# **Individual Productivity**

# **Overall Scholars**

Next, we turn to individual productivity, starting with overall lists, regardless of scholars' time in the field. The individual productivity findings indicate that the field is mostly led by veteran scholars from a blend of US and international institutions. Tables 2 and 3 display the top producing scholars from 2015 to 2021 using the count and point methods. There was considerable overlap between Tables 2 and 3, with 19 scholars appearing in both lists. Topping both lists was Richard E. Mayer (ranked #1 in both) who, along with Herbert W. Marsh (ranked #5 count method and #8 point method), has appeared in all previous productivity lists since 1991. Both scholars have sustained significant contributions to educational psychology journals over the last three decades.

The top 28 scholars identified by the count method (Table 2) authored at least 10 articles from 2015 to 2021. After Mayer were Ulrich Trautwein (#2), Fred Paas (#3), and Oliver Lüdtke (#4) who have also appeared in productivity lists from earlier time periods. Interestingly, the top three scholars identified by the count method had no first-authored publications but had the highest number of last-authored publications — perhaps a sign that these scholars serve more in supervisory roles on research teams and often opt for the last author position. In addition to Mayer and Marsh, John Sweller (ranked #13) was also ranked in every prior productivity study using the count method. Based on the point method (Table 3), Patricia Alexander (#2) continued her trend of being identified as a productive scholar since 1991, along with Mayer and Marsh. Other highly ranked scholars using the point method were Logan Fiorella (#3), Kathyrn Wentzel (#4), and Andrew Martin (#5).

Additionally, the top-producing authors have consisted of a combination of US and international scholars across time. During the period of 1991–2002, only 16% of the top identified researchers were from international universities. During the period from 2003 to 2008, that number had climbed to 50%. In the present rankings, the point method revealed that 14 of the 30 top producing researchers (46%) are from international institutions.

Close to half of the productive scholars from both lists were not previously included in prior productivity studies, signaling a new group of top-producing scholars publishing over the last 7 years. Furthermore, only five (16%) of the scholars included in Table 3 and three (10%) of those included in Table 2 are early career researchers: Logan Fiorella, Martina A. Rau, Malte Jansen, Denis Dumas, and Rebecca Collie. Given their relatively short time in the field, their level of productivity during this timeframe is impressive.



Table 2 Top producing scholars in educational psychology journals from 2015 to 2021 using the count method

Name	Institution in 2022	Doc year Points	Points		Count First author	Sole author	Last author	Mean no. authors	Other articles	2015– 2021 rank	2009– 2014 rank	2003– 2008 rank	1991– 2002 rank
Mayer, Richard E	University of California, Santa Barbara	1973	10.43	27	0	4	16	2.74	50	_	6	1	1
Trautwein, Ulrich	University of Tübingen	2002	2.02	24	0	0	14	5.75	92	2	4	3	ıı
Paas, Fred	Erasmus University Rotterdam l Wollongong University	1993	3.82	21	0	_	17	4.14	71	8	_	20	Ħ
Lüdtke, Oliver	IPN-Leibniz Institute for Science and Mathematics Education	2004	3.43	18	0	0	8	4.61	94	4	2	8	II
Martin, Andrew University of J New South Wales	University of New South Wales	1999	6.28	17	7	0	5	3.24	81	5	∞	nr	nr
Marsh, Herbert Australian W Catholic Universit	Australian Catholic University	1974	4.85	17	∞	-	2	5.41	87	5	3	2	7
van Gog, Tamara	Utrecht University	2006	3.49	17	3	0	9	4.52	92	5	4	ıı	nr
Möller, Jens	University of Kiel	1991	2.76	17	0	0	13	3.94	29	5	nr	nr	nr



Table 2   (continued)	(pai												
Name	Institution in 2022	Doc year	Points	Count	First author	Doc year Points Count First author Sole author Last author	ır	Mean no. authors	Other articles	2015– 2021 rank	2009– 2014 rank	2003– 2008 rank	1991– 2002 rank
Pekrun, Rein- hard	University of Essex   Australian Catholic University	1986	4.16	16	0	7	2	5.75	09	6	6	nr	nr
Fiorella, Logan	University of Georgia	2015	6.88	15	6	1	2	3	15	10	Ħ	II.	II.
Parker, Philip D	Australian Catholic University	2010	3.10	14	8	0	0	6.43	84	11	nr	nr	ıı
Nagengast, Benjamin	University of Tübingen	2009	1.35	41	0	0	4	5.85	52	11	12	nr	nr
Alexander, Patricia A	University of Maryland, College Park	1981	7.73	13	0	5	5	2.15	29	13	nr	9	7
Greene, Jeffrey A	University of North Caro- lina, Chapel Hill	2007	4.60	13	6	0	4	3.69	18	13	n	ıı	nr
Jansen, Malte	Institute for Educational Quality Improvement, Berlin	2014	4.01	13	ĸ	0	1	3.77	71	13	ju	Ħ	nr
Sweller, John	University of New South Wales	1969	3.11	13	1	0	11	3.38	29	13	12	10	12



2002 1991 rank nr 12 Ε 18 nr н Ε Ε 2008 rank ы пr П п Ξ nr Ξ Η 2014 rank Ξ Η Ξ п н п ы п 6 2015 -2021 rank 17 17 19 19 19 22 22 22 22 Other articles 42 21 Ξ 13 62 40 7 51 2 Mean no. authors 5.18 4.82 4.42 3.45 3.5 2.5 3.3 3.1 author Doc year Points Count First author Sole author Last 6 a d 0 0 2 d 2 0 2 a 3 9 12 12 Ξ Ξ 10 10 10 10 2.17 3.62 2.62 4.48 3.47 4.01 6.67 4.86 3.88 1982 2009 2002 2002 1987 1978 2010 2004 2004 McGill Univer-Michigan State College Park TU Dortmund College Park Institution in 2022 Arizona State University of University of University of University of University Maryland, University Maryland, University University Kent State Vienna Table 2 (continued) Wigfield, Allan Becker, Michael Muis, Krista R Goetz, Thomas Wentzel, Kath-Graham, Steve Rawson, Kath-Bernacki, Mat-Garcia, Lisa Linnenbrinkerine A ryn R Name

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Table 2 (continued)	(pai												
Name	Institution in 2022	Doc year	Points	Count	First author	Doc year Points Count First author Sole author Last Mean no. author authors	Last	Last Mean no. author authors	Other articles 2015–2021 rank	2015– 2021 rank	2009– 2014 rank	2003– 2008 rank	1991– 2002 rank
Collie, Rebecca University of J New South Wales	University of New South Wales	2014	3.24	3.24 10 3	8	0	4	3.2	47	22	11	ıı	ш
Petscher, Yaacov	Florida State University	2009	2.31 10	10	0	0	4	4.6	32	22	nr	nr	nr



Table 3 Top producing scholars in educational psychology journals from 2015 to 2021 using the point method

Mayer, University 1973 Richard E of Cali- Santa Barbara Alexander, University 1981 Patricia A of Mary- land, College Park Fiorella, University 2015 Logan of Geor- gia Wentzel, University 1987 Kathryn of Geor- Rathryn of Mary- R College Park Martin, University 1999 Andrew J of New South Wales			Count First author		Sole author Last author Mean no. authors	Mean no. authors	Other articles	2015– 2021 rank	2009– 2014 rank	2003– 2008 rank	1997– 2002 rank	1991– 1996 rank
University of Maryland, College Park University of Georgia University of Maryland, College Park University of New South Wales	10.43 27	27	0	4	16	2.74	50	-	14	1	1	2
University of Georgia University of Maryland, College Park University of New South Wales	7.73	13	0	<i>ب</i> ر	<b>v</b> 5	2.15	29	2	17	2	6	∞
University of Maryland, College Park University of New South Wales	6.88	15	6	1	7	8	15	κ	nr	n	nr	nr
University of New South Wales	6.67	10	S	4	0	2.5	2	4	in in	Ħ	19	Ħ
	6.28	17	7	0	ĸ	3.24	81	2	-	19	ш	ii.
Rau, Mar- University 2013 tina A of Wis- consin- Madison	5.15	∞	4	3	-	1.88	17	9	ш	Ħ	ш	ii.



lable 3 (continued)	tinued)													
Name	Institution in 2022	Doc year	Points	Count	Doc year Points Count First author Sole author Last author Mean no.	Sole author	Last author	Mean no. authors	Other articles	2015– 2021 rank	2009– 2014 rank	2003– 2008 rank	1997– 2002 rank	1991– 1996 rank
	Arizona State Univer- sity	1978	4.86	10	0	7	7	3.3	62	7	nr.	9	ю	nr
	Australian Catholic University	1974	4.85	17	∞	1	6	5.41	87	∞	9	4	ν.	-
Greene, Jeffrey A	University of North Carolina, Chapel Hill	2007	4.60 13	13	2	0	4	3.69	18	6	4	'n	n	nr
Rawson, Katherine A	Kent State University	2004	4.49	10	3	1	9	2.4	40	10	nr	ıı	nr	nr
Pekrun, Reinhard	University of Essex   Aus- tralian Catholic Univer- sity	1986	4.16	16	0	2	2	5.75	09	Ξ	17	Ħ	n	ī
Muis, Krista R	McGill Univer- sity	2004	4.01 12	12	5	0		4.42	21	12	nr	Ħ	nr	nr



Table 3   (continued)	ntinued)													
Name	Institution in 2022	Doc year	Points	Count	Institution Doc year Points Count First author Sole author Last author Mean no. in 2022	Sole author	Last author	Mean no. authors	Other articles	2015– 2021 rank	2009– 2014 rank	2003– 2008 rank	1997– 2002 rank	1991– 1996 rank
Jansen, Malte	Institute for 2014 Educa- tional Quality Improve- ment, Berlin	2014	4.01	13	٠,	0	1	3.77	17	13	nr	nr	nr	ш
Kim, Young- Suk G	University of Cali- fornia, Irvine	2007	3.98		9	1	0	2.71	43	41	ш	Ħ	II.	nr
Bernacki, Matthew L		2010	3.88	10	9	0	6	3.1	41	15	Ħ	ш	ii	Ħ
Paas, Fred	Erasmus University Rot- terdam   Wol- longong University	1993	3.82	21	0	-	17	4.14	71	16	2	뇝	뇝	Ħ



lable 3 (continued)	tinued)													
Name	Institution in 2022	Doc year	Points	Count	Doc year Points Count First author Sole author Last author Mean no. authors	Sole author	Last author	Mean no. authors	Other articles	2015– 2021 rank	2009– 2014 rank	2003– 2008 rank	1997– 2002 rank	1991– 1996 rank
Arens, Katrin A		2011	3.74	∞	7	0	_	3.38	72	17	ii	ш	뇝	늽
Schunn, Christian D	University of Pitts- burgh	1995	3.69	10	0	1	∞	2.6	110	18	nr	Ħ	nr	ш
Wigfield, Allan		1982	3.62	12	2	0	<b>L</b>	3.5	=	19	nr	ıı	_	n
Hodis, Flaviu A	Victoria Univer- sity of Welling- ton	2008	3.53	9	-	7	7	1.83	41	20	nr	TI.	ıı	nr
van Gog, Tamara	Utrecht Univer- sity	2006	3.49 17	17	3	0	9	4.52	76	21	7	ш	II.	nr



lable 3 (continued)	iitiiiaca)													
Name	Institution in 2022	Doc year	Points	Count	First author	Doc year Points Count First author Sole author Last author Mean no. authors	Last author	Mean no. authors	Other articles	2015– 2021 rank	2009– 2014 rank	2003– 2008 rank	1997– 2002 rank	1991– 1996 rank
Becker, Michael	TU Dort- mund Univer- sity	2009	3.47	11	2	0	2	3.45	42	22	nr	nr	nr	nr
Bang, Megan	Northwest- ern Uni- versity	2006	3.46	7	2	1	2	æ	16	23	nr	Ħ	nr	nt
Lüdtke, Oliver	IPN- Leibniz Institute for Sci- ence and Math- ematics Educa- tion	2004	3.43	81	0	0	m	4.61	46	42	16	ä	ii	Ħ
Dumas, Denis	University of Denver   Univer- sity of Georgia	2016	3.38	9	61	61	0	$\kappa$	43	25	Ħ	Ħ	ä	nr
Kendeou, Panayiota		2005	3.37	∞	1	1	5	2.75	25	26	nr	Ħ	nr	nr
Nolen, Susan Bobbitt	University of Wash-ington	1986	3.35	ν.	2	2	1	2	9	27	nr	ш	nr	nr

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Table 3   (continued)	ntinued)													
Name	Institution in 2022	Doc year	Points	Count	Institution Doc year Points Count First author Sole author Last author Mean no. in 2022	Sole author	Last author	Mean no. authors	Other articles	2015– 2021 rank	2009– 2014 rank	2003– 2008 rank	1997– 2002 rank	1991– 1996 rank
Patall, Erika A	University of Southern California	2009	3.27	7	4	1	0	4	17	28	nr	nr	nr	nr
Collie, Rebecca J	University 2 of New South Wales	2014	3.24	10	3	0	4	3.2	47	29	nr	H	nr	ıı
Roelle, Julian	Ruhr University Bochum	2011	3.16	7	ν.	0	0	3.43	17	30	nr	.u.	nr	nr



We also found that scholars in both lists have published in various other journal outlets beyond the five we focused on in our study. Such articles were found in journals related to educational psychology or from other disciplines like educational research, educational technology, cognitive psychology, social psychology, and developmental psychology. Most educational psychology researchers continue to publish widely and seem to cross disciplinary boundaries. Looking at the entire corpus of top authors' published journal articles from 2015 to 2021, a few scholars had over 90 articles total: Fred Paas (92), Oliver Lüdtke (112), Andrew J. Martin (98), Tamara van Gog (93), Philip D. Parker (98), and Christian Schunn (120).

# **Early Career Scholars**

Tables 4 and 5 display the top producing early career scholars from 2015 to 2021 using the point and the count methods. As expected, the early career scholars who were ranked in the overall scholar lists (Tables 2 and 3) topped the lists in Tables 4 and 5. Logan Fiorella ranked first using both the count and point methods and has fittingly won early career awards from the American Psychological Association and the American Educational Research Association (see Kiewra et al., 2021 for interviews with Fiorella and other early career scholars). Other early career scholars (Rebecca Collie, Denis Dumas, Malte Jansen, and Martina Rau) also appeared on the overall list of productive scholars. Similar to more seasoned productive scholars, early career scholars published extensively in other journals apart from the five outlets. For example, Ronnel King (100 additional articles), Daniel McNeish (72), and Ulrike Nett (57) were quite prolific across a diverse set of peer-reviewed journals.

Although we had included in these lists only those scholars who received their doctorate from 2012 to 2021, we had expected the majority of productive early career scholars to have graduated in the first five or so years of this period, assuming that those with more years post-doctorate would be more productive. However, several very recent doctoral recipients made the list, such as Nikki Lobczowski, Kristy Robinson, and Maik Beege who graduated in 2019. It is worth noting that productive early career scholars did not always hold university-related or traditional academic faculty positions, unlike the list of overall productive scholars.

When considering the productivity of early career scholars, it seems natural to investigate the role of their graduate training and the mentoring they received in publishing in educational psychology journals. In our data collection procedures, we requested information about early career scholars' doctoral advisors, but this information was not consistently provided. Despite these missing data, when the information was given, it was not surprising to observe that early career scholars were often mentored by other high-producing scholars. A few of these advisee-advisor connections were as follows: (1) Patricia Alexander (advisor) — Denis Dumas (advisee), Alexandra List (advisee), and Emily Grossnickle Peterson (advisee); (2) Richard Mayer (advisor) — Logan Fiorella (advisee); (3) Allan Wigfield (advisor) — Katherine M. Muenks (advisee) and Emily Q. Rosenzweig (advisee); (4) Lisa Linnenbrink-Garcia (advisor)



Table 4 Top producing early career scholars in educational psychology journals from 2015 to 2021 using the count method

	University of Georgia Institute for Educational Quality Improve-							
	Institute for Educational Onality Improve-	2015	88.9	15	6	1	3	15
	ment, Berlin	2014	4.01	13	S	0	3.77	17
	University of New South Wales	2014	3.24	10	3	0	3.2	47
	TU Dortmund University	2015	2.79	6	5	0	5.22	20
	nt Utrecht University	2015	2.21	6	2	0	4.4	13
	Australian Catholic University	2014	1.62	6	3	0	6.11	24
	University of Wisconsin-Madison	2013	5.15	8	4	3	1.88	17
	Australian Catholic University	2016	0.97	8	1	0	5.4	36
	University of Koblenz and Landau	2018	2.80	7	7	0	4.71	111
	Sookmyung Women's University	2017	2.19	7	2	0	3.86	16
	Arizona State University	2015	1.89	7	1	0	3.71	72
	McGill University	2019	1.84	7	4	0	5.86	∞
	University of Denver   University of Georgia	2016	3.38	9	2	2	3	43
	2 University of Georgia	2017	2.57	9	4	0	4.16	∞
	University of Nevada, Las Vegas	2015	2.24	9	2	0	3	46
	Georgia Southern University	2018	2.15	9	3	0	3.5	6
	nie V Center for Creative Leadership	2016	1.4	9	1	0	5.5	12
	University of Haifa	2012	2.99	2	3	1	2.2	11
18 List, Alexandra	Pennsylvania State University	2014	2.69	2	5	0	2.6	32
18 Koenka, Alison C	Virginia Commonwealth University   University of Oklahoma	2015	2.29	S	0		2.8	6
18 Lobczowski, Nikki G	J University of Pittsburgh	2019	2.08	5	2	1	4	10
18 Lombardi, Doug	University of Maryland, College Park	2012	1.90	5	2	0	2.8	28
18 Fong, Carlton J	Texas State University	2014	1.86	5	4	0	4.4	32
18 Burns, Emma C	Macquarie University	2017	1.82	5	3	0	3.8	16



Table 4 (continued)

2	della (communa)								
Rank	Rank Name	Institution in 2022	Doc year	Points	Count	First author	Sole author	Doc year Points Count First author Sole author Mean no. authors Other articles	Other articles
18	Castro-Alonso, Juan	University of Chile	2013	1.81	5	3	0	4	8
18	Litalien, David	Laval University	2014	1.80	5	3	0	4	19
18	Mavilidi, Myrto Foteini	University of Wollongong	2018	1.79	5	4	0	5.5	30
18	Pan, Steven C	National University of Singapore	2018	1.77	5	3	0	4.4	22
18	Schneider, Sascha	University of Zurich	2017	1.65	5	4	0	4.6	36
18	Muenks, Katherine M	University of Texas at Austin	2016	1.52	5	2	0	4	14
18	Flunger, Barbara	Utrecht University	2012	1.50	5	2	0	5.4	19
18	Lin, Tzu-Jung	The Ohio State University	2012	1.30	5	2	0	7	34
18	Vasquez, Ariana C	Arroyo Research Services	2016	1.24	5	1	0	5	9
18	Nett, Ulrike E	University of Augsburg	2015	1.02	5	0	0	3.8	57
18	Wille, Eike	N/A	2017	1.06	5	2	0	5.6	2
18	Perez, Tony	Old Dominion University	2012	0.93	5	1	0	5.8	12
18	Beege, Maik	Freiburg University of Education	2019	0.84	5	1	0	4.4	23



Table 5 Top producing early career scholars in educational psychology journals from 2015 to 2021 using the point method

Rank	Rank Name	Institution in 2022	Doc year	Points	Count	Count First author	Sole author	Sole author Mean no. authors	Other articles
-	Fiorella, Logan	University of Georgia	2015	88.9	15	6	1	3	15
2	Rau, Martina A	University of Wisconsin-Madison	2013	5.15	∞	4	3	1.88	17
3	Jansen, Malte	Institute for Educational Quality Improvement, Berlin	2014	4.01	13	5	0	3.77	17
4	Dumas, Denis	University of Denver   University of Georgia	2016	3.38	9	2	2	3	43
5	Collie, Rebecca J	University of New South Wales	2014	3.24	10	3	0	3.2	47
9	Barzilai, Sarit	University of Haifa	2012	2.99	5	3	1	2.2	11
7	Wolff, Fabian	University of Koblenz and Landau	2018	2.80	7	7	0	4.71	11
∞	Gaspard, Hanna	TU Dortmund University	2015	2.79	6	5	0	5.22	20
6	List, Alexandra	Pennsylvania State University	2014	5.69	5	5	0	2.6	32
10	King, Ronnel B	University of Hong Kong	2012	2.67	4	3	1	2	100
11	Rosenzweig, Emily Q	University of Georgia	2017	2.57	9	4	0	4.16	~
12	Grossnickle Peterson, Emily	American University	2015	2.48	4	1	1	2.5	111
13	Marin, Ananda M	University of California, Los Angeles	2017	2.42	4	2	1	2.25	26
14	Rutherford, Teomara	University of Delaware	2014	2.35	4	2	1	2.25	14
15	Koenka, Alison C	Virginia Commonwealth University   University of Oklahoma	2015	2.29	S	0		2.8	6
16	Taylor, Katie H	University of Washington	2013	2.28	4	0	2	5.75	9
17	Perera, Harsha N	University of Nevada, Las Vegas	2015	2.24	9	2	0	3	46
18	Hoogerheide, Vincent	Utrecht University	2015	2.21	6	2	0	4.4	13
19	Fryer, Luke K	University of Hong Kong	2013	2.20	3	2	1	1.67	38
20	Lee, You-kyung	Sookmyung Women's University	2017	2.19	7	2	0	3.86	16
21	Flanigan, Abraham E	Georgia Southern University	2018	2.15	9	3	0	3.5	6
22	Lobczowski, Nikki G	University of Pittsburgh	2019	2.08	5	2	1	4	10
23	Butterfuss, Reese	Arizona State University	2020	2.08	4	3	0	2.5	8



Table 5 (continued)

Rank	Rank Name	Institution in 2022	Doc year	Points	Count	First author	Sole author	Doc year Points Count First author Sole author Mean no. authors Other articles	Other articles
24	24 Ching, Boby Ho-Hong	University of Macau	2016	2.02	3	2	1	2.33	14
25	Lombardi, Doug	University of Maryland, College Park	2012	1.90	5	2	0	2.8	28
26	Zee, Marjolein	University of Amsterdam	2016	1.90	4	4	0	3	26
27	McNeish, Daniel M	Arizona State University	2015	1.89	7	1	0	3.71	72
28	Kim, Lisa E	University of York	2016	1.86	4	3	0	2.75	32
29	Fong, Carlton J	Texas State University	2014	1.86	5	4	0	4.4	32
30	Robinson, Kristy A	McGill University	2019	1.84	7	4	0	5.86	8
31	Chen, Ouhao	Loughborough University	2016	1.84	4	4	0	3.33	16
32	Burns, Emma C	Macquarie University	2017	1.82	5	3	0	3.8	16
33	Castro-Alonso, Juan	University of Chile	2013	1.81	5	3	0	4	8
34	Litalien, David	Laval University	2014	1.80	5	3	0	4	19
35	Fyfe, Emily R	Indiana University	2015	1.77	4	2	0	3.25	22
36	Pan, Steven C	National University of Singapore	2018	1.77	5	3	0	4.4	22



— Kristy A. Robinson (advisee) and Stephanie V. Wormington (advisee); (5) Fred Paas (advisor) — Juan Castro-Alonso (advisee) and Myrto-Foteini Mavilidi (advisee). (6) Erika A. Patall (advisor) — Carlton J. Fong (advisee) and Ariana C. Vasquez (advisee); (7) Jeffrey A. Greene (advisor) — Nikki Lobczowski (advisee); (8) Tamara van Gog (advisor) — Vincent Hoogerheide (advisee); (9) Herbert Marsh (advisor) — Jiesi Guo (advisee). Some early career scholars were mentored by two top-producing scholars: (1) Benjamin Nagengast (advisor) and Ulrich Trautwein (advisor) — Hanna Gaspard (advisee) and Eike Wille (advisee); (2) Andrew Martin (advisor) and Rebecca Collie (advisor) — Emma Burns (advisee). Note that this list is not exhaustive and may omit other mentor-mentee connections that were not provided in the data we requested. Also, it is important to recognize how many early career scholars became productive perhaps without much formal mentoring as several researchers commented that their advisors passed away or were not supportive mentors during graduate school. Clearly, having a supportive and productive advisor can be an important advantage for early career scholars' productivity levels; however, some scholars navigate the publishing process rather independently without much guidance and formal mentorship. These differences should be taken into account when evaluating scholarly productivity from an equity-focused lens.

#### **Collaboration Trends**

In our sample of 1660 articles, 200 of them were sole-authored. Thus, almost 88% of articles had two or more authors. The mean number of authors per article was 3.4 (SD = 1.88), with 18 being the highest number of authors for any given article. To assess trends over time, we also calculated the average number of authors in 2015 and in 2021. In 2015, the mean number of authors per article was 3.26 (SD = 1.73); in 2021, the mean number of authors per article was 3.64 (SD = 2.04). In a similar study on productivity from 2003 to 2008, Jones et al., (2010) found that the mean number of authors was 2.6 in 2008. Therefore, we saw a gradual increase in the amount of collaboration over time. Despite this upward trend in larger research teams, we noticed much heterogeneity in terms of average number of authors per article among some of the most top-producing authors. For instance, Flaviu Hodis had the lowest average (1.83), whereas Philip Parker had the highest (6.43). However, in general, the top-producing authors were collaborative researchers. Of the 349 total publications produced in these five journals by the scholars listed in Table 2, 85% of these publications had co-authors. Furthermore, only 22% of the publications produced by the top scholars listed in Table 2 were first-author publications, showing a reliance on graduate students, other postdoctoral scholars, or outside collaborators.



# **Going Beyond Five Educational Psychology Journals**

Although extracting article information from the same five journals for the last 30 years allows the field to draw meaningful comparisons across time periods, one limitation of the present study is that our dataset may not adequately cover what the field might consider to be educational psychology journals. Truly, the field of educational psychology is evolving along with what constitutes a toptier journal in educational psychology. For instance, the journal Learning and *Instruction*, published by the European Association for Research on Learning and Instruction (EARLI) has been a high-impact outlet over the last decade. As a supplementary analysis, we re-analyzed the data for the top-producing scholars overall identified by the count method (Table 2) by including additional publications from Learning and Instruction from 2015 to 2021. New rankings of the top 17 scholars based on the count method are presented in Table 6. Interestingly, there was quite a bit of shifting that occurred, so that Ulrich Trautwein edged out Richard Mayer for the top ranking. Also, Reinhard Pekrun jumped from 9th to tie for third with Oliver Lüdtke. Katherine Rawson moved up from 22nd to the tying for 14th with three others. Changes in these rankings suggest that expanding the list of educational psychology journals would likely change productivity lists. We encourage future researchers to consider carefully what outlets should be used when assessing productivity. For instance, some may argue that journals not viewed as educational psychology journals (e.g., general education and educational research journals) align with some scholars'

**Table 6** Top 17 producing scholars with the addition of learning and instruction (L&I) from 2015 to 2021 using the count method

Name	Count	2015– 2021 rank	Count with L&I	2015–2021 rank with L&I
Trautwein, Ulrich	24	2	32	1
Mayer, Richard E	27	1	31	2
Lüdtke, Oliver	18	4	26	3
Pekrun, Reinhard	16	9	26	3
Möller, Jens	17	5	24	5
Paas, Fred	21	3	23	6
Marsh, Herbert W	17	5	23	6
van Gog, Tamara	17	5	21	8
Parker, Philip D	14	11	20	9
Martin, Andrew J	17	5	19	10
Nagengast, Benjamin	14	11	19	10
Sweller, John	13	13	17	12
Muis, Krista R	12	17	16	13
Fiorella, Logan	15	10	15	14
Alexander, Patricia A	13	13	15	14
Jansen, Malte	13	13	15	14
Rawson, Katherine A	10	22	15	14



research agendas to publish work that applies educational psychological work to other domains and contexts. Broadening and diversifying journal types is a promising line of work to bring additional nuance to how our field could operationalize productivity.

# Conclusion

In sum, this latest study continues to update and extend trends in productivity research dating back to 1991, identifying top-producing institutions and scholars who have contributed to educational psychology research over the last three decades. At the same time, we also expanded upon prior productivity studies to include early career scholars in the field. Such recognition might be considered in tenure and promotion decisions for newer faculty members or early career awards. Additionally, journals and scholarly organizations often use these lists as one method to identify future editors, editorial board members, and organizational officers who can serve the field of educational psychology. In all the lists we compiled, we observed a common trend of increased internationalization of our field (non-US institutions and scholars) and collaboration (in terms of the average number of authors). Although non-US representation is increasing, it is not clear if representation from other regions such as the Global South is improving, or whether published authors reflect other forms of diversity including racially or ethnically minoritized people groups. Moreover, while author teams seem to be growing in size over time, more work is needed to unpack whether all listed authors are meaningfully contributing for a given article and how a plurality of ideas from multiple authors enhances research in educational psychology. We also question if a driving cause of such growth in the number of authors per article is the increasing pressure to "publish or perish" and a simple tendency to overfill the author byline.

#### **Declarations**

**Conflict of Interest** The authors declare no competing interests.

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