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## *Decolonizing Open Access in Development Research*

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### **How Accessible are Journal Articles on Education Written by Sub-Saharan Africa-based Researchers?**

**Samuel Asare, Rafael Mitchell and Pauline Rose**

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#### **ABSTRACT**

This article investigates the extent to which education publications authored by researchers based in sub-Saharan Africa are published as open access (OA). We draw on bibliometric analysis of 1,858 peer-reviewed articles over the period 2010–18, together with interviews with 31 academics based in the region. Overall, we find a steady increase in OA publishing in the region over this period, although the proportion of OA publications remains low. The study finds that: (1) open access articles by researchers in sub-Saharan Africa are concentrated in journals with a lower impact factor; and (2) authors in sub-Saharan Africa tend to publish in higher quality journals behind a paywall, rather than in lower quality journals that either have no or lower cost for open access.

#### **INTRODUCTION**

Recent years have seen dramatic shifts in publications on education by researchers based in sub-Saharan Africa. The digital era has seen a transition from academic publications existing only in hard copy, often with limited runs (Marfo et al., 2011), to dissemination through the internet, which — for those with access — has revolutionized the availability of research from sub-Saharan Africa. Universities across the region have established online repositories which are listed on the OpenDOAR global directory (Mitchell et al., 2020), and there is a growing enthusiasm for open access (OA) publishing (Fussy, 2018).

Despite these positive trends, there is a tendency for education research from the region to be somewhat overlooked and under-utilized (Rose et al.,

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2019). There are continued questions about the accessibility to African researchers of research that is published in internationally recognized journals, which may be seen to offer a signal of quality. This briefing focuses on the extent to which open access promotes the visibility of peer-reviewed articles by African researchers. We draw on findings from bibliometric analysis of 1,858 publications in the African Education Research Database, an online catalogue of peer-reviewed publications by Africa-based scholars. We focus specifically on peer-reviewed articles written in English and published in 2010–18 in journals with international coverage and an impact factor of at least 0.2 according to SCImago data in 2018.<sup>1</sup> Publications are authored or co-authored by researchers based in 48 African countries (for further discussion of co-authorship, see Asare et al., 2020). The bibliometric analysis is supplemented by semi-structured interviews with 31 Africa-based education researchers, selected to reflect a range of national and institutional settings, gender and experience. Interviews elicited researchers' accounts of their experiences of publishing, partnerships, funding, impact and access.

## BIBLIOMETRIC FINDINGS

Our analysis of the peer-reviewed articles in the database indicates that OA publishing by researchers working on education within sub-Saharan Africa is still quite limited. Overall, around one-quarter (485 of 1,858) of the publications are open access. As Figure 1 shows, there has been a steady increase in OA publications over this period, rising from 18 per cent of the total in 2011 to 39 per cent in 2018.

We examined distinctive patterns of OA publications in 'lower impact' journals (0.2 to 0.39) and 'higher impact' journals (0.4 or more). From discussions with leading African academics, impact factor is a measure which researchers themselves use to inform decisions about where to publish. As Table 1 shows, overall, 37 per cent of articles in 'lower impact' journals are OA, compared with just 17 per cent of those in 'higher impact' journals. This pattern seems to hold over time, with 'lower impact' journals consistently hosting a greater proportion of OA articles, although the share of OA publications in both types of journals rose markedly in 2018.

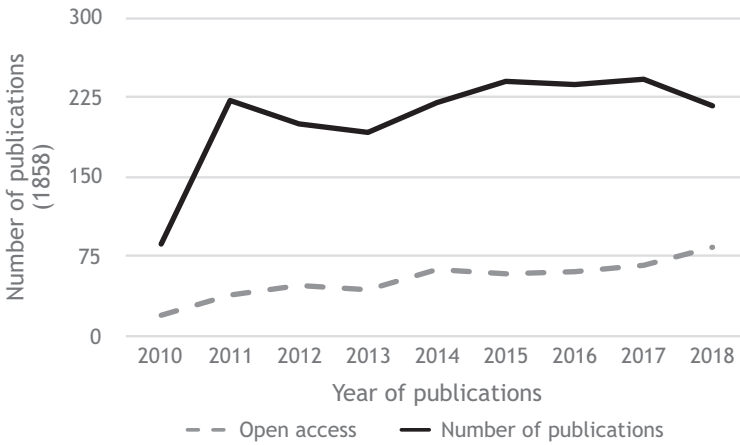
International collaboration and external funding were not found to be strongly associated with OA status. About 30 per cent of articles in the sample were co-authored with scholars from outside the region, but only 18 per cent of these are open access, compared with 29 per cent that did not involve such collaboration. Similarly, of the 14 per cent of publications that received external funding,<sup>2</sup> only 19 per cent are OA, while 27 per cent of those that

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1. See [www.scimagojr.com](http://www.scimagojr.com)

2. Earlier analysis of publications in the database identified that key funders include the UK's Department for International Development and the Hewlett Foundation (Rose et al., 2019).

Figure 1. Annual Publication and Proportion that is Open Access, 2010–18



Source: Analysis of journal articles in the African Education Research Database, <https://essa-africa.org/AERD>

Table 1. Proportion of Open Access Publications in Lower and Higher Impact Journals between 2010 and 2018

| Year    | Lower impact journal         |               | Higher impact journal        |               |
|---------|------------------------------|---------------|------------------------------|---------------|
|         | Total number of publications | % Open Access | Total number of publications | % Open Access |
| 2010    | 16                           | 63            | 71                           | 14            |
| 2011    | 135                          | 27            | 87                           | 4             |
| 2012    | 106                          | 37            | 94                           | 10            |
| 2013    | 99                           | 36            | 93                           | 7             |
| 2014    | 139                          | 36            | 81                           | 16            |
| 2015    | 127                          | 37            | 113                          | 11            |
| 2016    | 86                           | 40            | 151                          | 18            |
| 2017    | 92                           | 38            | 150                          | 21            |
| 2018    | 56                           | 54            | 161                          | 35            |
| Overall | 856                          | 37            | 1001                         | 17            |

Source: Analysis of journal articles in the African Education Research Database, <https://essa-africa.org/AERD>

did not receive any funding are open access. Counter to our expectations, this suggests that research that did not receive external funding was more likely to be open access, despite the increasingly common requirement by international funders that research is made open access as reflected in Plan S.<sup>3</sup>

We explored whether choices to publish OA depended on the fees charged by different journals. Table 2 presents two approaches: first, identifying

3. See [www.coalition-s.org/](http://www.coalition-s.org/)

Table 2. Open Access Policies of Selected Journals

| Journals   | Publisher                                | Journal impact factor (2018) | No. of articles in database | % of articles in database published as Open Access | Journal open access policy   |
|--|--|------------------------------|-----------------------------|--|--|
| <b>Key journals in which SSA-based researcher publish as Open Access</b> |  |                              |                             |  |  |
| Library Philosophy and Practice  | University of Nebraska, USA              | 0.2                          | 65                          | 100%   | No fees.<br>No cost to view articles.  |
| Sage Open  | Sage Publications                        | 0.2                          | 45                          | 100%   | US\$ 800 (plus tax where applicable).<br>No cost to view articles.   |
| Asian Social Science   | Canadian Centre of Science and Education | 0.1                          | 39                          | 100%   | Publication fee of US\$ 400.<br>No cost to view articles.  |
| Cogent Education   | Taylor & Francis                         | 0.2                          | 29                          | 62%  | Publication fee of US\$ 1,000 for sub-Saharan African authors. Fee waivers for low- and lower-middle-income countries. |
| Turkish Online Journal of Distance Education                             | Anadolu University, Turkey               | 0.3                          | 26                          | 100%   | No cost to view articles.<br>No publication fees, only one paper per author in a year.                                 |
| International Review of Research in Open and Distance Learning           | Athabasca University, Canada             | 1.2                          | 20                          | 100%   | No cost to view articles.<br>No publication fees.<br>No cost to view articles.   |
| International Education Studies  | Canadian Centre of Science and Education | 0.2                          | 17                          | 100%   | Publication fee of US\$ 400.<br>No cost to view articles.  |

(Continued)

Table 2. Continued

| Journals  | Publisher                 | Journal impact factor (2018) | No. of articles in database | % of articles in database published as Open Access | Journal open access policy   |
|---|---------------------------|------------------------------|-----------------------------|--|--|
| Procedia-social and Behavioural Sciences                    | Elsevier                  | 0.2                          | 10                          | 100%   | Journal no longer active. No information.  |
| <b>Key education and international development journals</b> |                           |                              |                             |  |  |
| Comparative Education Review                                | The University of Chicago | 1.2                          | 7                           | 14%  | Publication fee of US\$ 2,500. US\$ 20 to view an article.   |
| International Journal of Educational Development            | Elsevier                  | 0.7                          | 75                          | 4%   | Publication fee of US\$ 1,300. Discounts or fee waivers available on a case-by-case basis to researchers in developing and emerging regions.       |
| Compare   | Taylor & Francis          | 0.9                          | 20                          | 0%   | US\$ 40 to view an article. Publication fee of US\$ 2,950 for sub-Saharan African authors. Fee waivers for low- and lower-middle-income countries. |
| Comparative Education                                       | Taylor & Francis          | 0.9                          | 12                          | 0%   | Publication fee of US\$ 2,950 for sub-Saharan African authors. Fee waivers for low- and lower-middle-income countries. £34 to view an article.     |

Source: Impact factor based on Scimago data from 2018, www.scimagojr.com. Information on fee rates from journal and publisher webpages

journals in which the majority of publications are OA; and, second, selecting leading journals in the field of education and international development more widely.

In journals with a low impact factor, which would not be considered leading journals in education and international development, most either do not charge for open access or have lower charges compared with journals from leading publishers such as Taylor & Francis and Elsevier. The costs of an OA publication in higher impact journals are more daunting. For example, the processing fee for an OA article for the Taylor & Francis journals *Compare* and *Comparative Education* is US\$ 2,950. We found no open access articles in these journals by authors from African countries. Taylor & Francis offers a full fee waiver for authors based in low-income countries, and 50 per cent for those in lower-middle-income countries<sup>4</sup> (the latter would apply to Ghana and Nigeria, for example, where a sizeable proportion of researchers of publications in the database are based). Questions arise as to whether these fee waivers respond to the economic realities of African researchers, how recently they were introduced, and whether authors were able to access them.

Similarly, only four out of 82 articles in the high impact factor journals *Comparative Education Review* and *International Journal of Educational Development* are open access. These journals charge fees of US\$ 2,500 and US\$ 1,300, respectively. Three of the four articles involved international collaboration, which may have facilitated the payment of the OA fee. The second of these journals is published by Elsevier, which in principle does have a fee-waiver system that prioritizes authors from low- and lower-middle-income countries, but the process for this seems less clear than Taylor & Francis — it is considered on a ‘case by case basis’, according to the publisher’s website.<sup>5</sup> This analysis suggests that opting for open access is currently influenced by the fees charged for doing so, and tends to push African authors toward low-impact journals where fees are low or non-existent. Despite official fee waivers, the fees charged by higher-impact journals appear to be a constraining factor for authors from sub-Saharan Africa.

## EXPERIENCES OF ACCESS TO OPEN ACCESS

Given the search processes and inclusion criteria for mainstream academic databases, most publications in the bibliometric analysis are international journals. National journals tend to be published by universities rather than by commercial publishers and do not charge publication fees. However, some interviewees suggested that articles in national journals were often *less* accessible than international ones. For example: ‘Most of the research

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4. <https://authorservices.taylorandfrancis.com/publishing-open-access/#funding>

5. [www.elsevier.com/about/policies/pricing](http://www.elsevier.com/about/policies/pricing)

which is published in local journals — we don't have it. We don't have access. Most of the time it's print, it's not on the internet'.<sup>6</sup>

Not all national journals are print-only, and many are routinely made freely available online. For example, an Ethiopian researcher explained that national journals in his country have been publishing articles on education since the 1960s which are now free to access online, without charge to author or readers.

Yet leading researchers in the region expressed a preference for publishing in international journals, which are valued for their perceived status and legitimacy in the eyes of a global academic audience. A Kenyan researcher explained:

You want a journal for Africa? No, we don't do that, because I think good science is good science, regardless of where it is [from]. So [we] look at ... the leading journals ... Both the ones that you have to subscribe [to], and the ones that are open. But they have to be *leading*, and not questionable in any way ... You try to look at the top journals ... and 'top' means they're accessible. For example, we don't always look at the impact factor, but that could ... be something that we consider. [But] also journals that are ... published [by] very well-known universities ... One runs through the editorial board to see the background of the editors, to see: 'Who are driving this journal?' Okay, Oxford, Cambridge, Harvard, Berkeley ... Those are some of the considerations that we make.<sup>7</sup>

An Ethiopian researcher expressed a similar inclination to publish in international journals: 'I have published in the *Ethiopian Journal of Education* but ... I want to publish internationally as well ... Because if you publish locally, citation might be limited. If you publish it internationally, citation might be more'.<sup>8</sup>

Regardless of where researchers choose to publish (and whether or not this is OA), interviews revealed that many researchers have extremely limited access to subscription content through their institutions, including those based in national universities, research centres and high-level international organizations. Some commercial publishers have sought to make subscription content available to universities in sub-Saharan Africa through no- or low-cost access schemes (Gwynn, 2019). The extent to which this has increased access to peer-reviewed research in the region is unclear.

For many African institutions, key constraints include the unreliability of the internet, and ongoing challenges with IT infrastructure with sufficient capacity to download publications efficiently. Not only can universities' internet connections be slow and unreliable in parts of the region (Chitanana, 2012), but some institutions do not provide researchers with free access to the internet. As a Burkinabé researcher explained: 'In Ouagadougou we don't have internet provided by the university. Each teacher has to [pay

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6. Interview with female researcher, Burkina Faso, December 2017.

7. Interview with male researcher, Kenya, March 2018.

8. Interview with male researcher, Ethiopia, May 2018.



for internet usage]; you just manage by yourself'.<sup>9</sup> Paying for internet access from one's own pocket can be challenging due to the high cost of living and low monthly salary for academics, as this researcher explained (see also Piron et al., 2017).

Overall, the findings from interviews illustrate that open access status, and other forms of technically 'free' access, provide no guarantee that research is accessible to potential users in the region. The promise of OA publishing to improve visibility of African research needs to be accompanied by better research funding and wider investments in research infrastructure if it is to be effective.

## CONCLUSION

This short article shows that, although open access publishing is increasing, African researchers struggle to reap its benefits. OA articles from the region are concentrated in journals with a lower impact factor, which may be considered of lower quality. Faced with high processing fees for open access in higher quality journals, many authors based in sub-Saharan Africa choose to publish in higher-quality journals behind a paywall, rather than in lower quality OA journals, consistent with findings elsewhere in the global South (Nobes and Harris, 2019) and the North (Niles et al., 2019). Overall, OA publication of African research is constrained by the cost of processing fees, while the ability to read OA articles is constrained by weak internet and academic infrastructure, questioning the openness of open access for African researchers.

Such constraints are likely to continue to undermine the visibility and impact of work by Africa-based researchers amongst fellow researchers, policy actors and other stakeholder groups. As a matter of priority, we propose that publishers should explicitly and uniformly waive open access fees, or subsidize publication, such that Africa-based researchers are given opportunities to publish their work without charge in high-impact journals. This is all the more vital given the limited research funding available to Africa-based scholars, which leaves limited scope to cover these costs. At the same time, improvements in IT infrastructure and free access to the internet in African institutions is vital for researchers in the region to be able to access publications by fellow scholars in the region as well as internationally.

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9. Interview with female researcher, Burkina Faso, December 2017.

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