Open Access in Special Education: A Review of Journal and Publisher Policies

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Abstract
Open-access (OA) options, including preprints and postprints, provide free access to research, accelerate the dissemination of academic work, and may aid in dissemination of null results. However, OA publishing is not an established practice for many special education researchers, and journal and publishers’ policies regarding OA are not always clear. In this article, we systematically reviewed OA policies (i.e., regarding preprints, postprints, OA publishing, article processing charges [APCs], and embargo periods) for 51 special education journals and five publishers of special education journals. Most journals provided few policies, only three journals provided information for each OA feature examined, and many journals and publishers reported substantial APCs and embargo periods over 18 months. We recommend journals and publishers clearly post OA policies and reduce APCs to foster broad and open dissemination of special education research.

Keywords
open science, legal/policy issues, change/innovation

In December 2018, The University of California (UC) System canceled its subscription contract with Elsevier, one of the largest academic publishers in the world. This multimillion-dollar subscription package was not renewed, in part, because of UC’s desire to increase the availability of research for all. The UC Academic Senate advocated for all UC professors to utilize preprints and open-access (OA) publishing to make their research freely and immediately available (University of California Academic Senate, 2019). This situation is one example of the scientific community implementing practices that fall under the umbrella of open science to increase the accessibility and impact of research (Adelson et al., 2019). Open science, which aims to make the scientific process as transparent and open as possible, has become prominent in fields such as psychology in response to concerns about the replicability and availability of research (Open Science Collaboration, 2015). Researchers in education and special education have begun to recognize the value of using open-science practices to improve the trustworthiness, openness, and impact of their research (Cook et al., 2018, 2019; Lloyd & Therrien, 2018; van der Zee & Reich, 2018; van Dijk et al., 2020). Open and trustworthy research is especially critical in special education, a field in which policy and practice are directly informed by research (Cook et al., 2018; Cook & Odom, 2013). OA publishing, which serves as the focus of this study, is one specific open practice that can increase accessibility to research, expedite the dissemination of research findings, and foster collaboration.

In this study, we (a) review the OA policies of special education journals and their publishers and (b) provide recommendations to special education researchers for navigating these policies when publishing OA. This study extends current research by conducting the first systematic review of the OA policies of special education journals and their publishers, and it will help inform researchers about when and how to engage in OA publishing. Although reviews of OA policies have been published in other fields (Klebel et al., 2020), there has yet to be such a study completed in special education.

Preprints and Postprints
The content of preprinted research reports is similar to studies published in traditional journals (e.g., introduction, method, results, and discussion sections), but preprints are posted to print repositories (online servers or databases for preprints and postprints) that are open to the public rather than subject to journal peer review, editorial decision, and publishing fees. Preprints may be posted to preprint servers or incorporated into personal or institutional websites. Postprints are the final version of manuscripts that have undergone peer review and publication, and they may be available through OA journals or directly from the author. Preprints and postprints are valuable resources for researchers, policymakers, and practitioners, and they may contribute to the acceleration of research dissemination and the enhancement of research quality.

Keywords
OA, research dissemination, research trustworthiness, research impact

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than disseminated only in journals that are inaccessible to those without a subscription. Frequently, preprints are submitted before or in conjunction with submission of a research report to a peer-reviewed journal. Researchers might post a preprint before journal submission to receive feedback or locate additional collaborators. Researchers might post preprints simultaneously with journal submission to more quickly disseminate findings. Preprints also put a metaphorical stake in the ground that establishes an intellectual claim to methods and results from the study as soon as a study is written up. Manuscripts that will not ever be submitted for publication, perhaps because authors feel that a study with null or negative results is unlikely to be accepted, can also be preprinted to contribute to the field’s knowledge base. Journals and publishers have varying policies on preprints, and many journals do not clearly post preprint policies on their websites. The lack of clarity from journals and publishers may deter some researchers from preprinting their work.

Some publishers and journals also allow self-archiving of postprints. Postprints are author-formatted manuscripts (e.g., a .pdf version of the author’s Word document) that have been submitted to a journal, perhaps even accepted and published, and posted to an open repository. The distinction between a preprint and a postprint is that the latter reflects changes that occurred during the peer-review process. Journal and publisher policies on postprints vary, with some allowing postprints on university repositories, print repositories, personal blogs, or social media. SHERPA/RoMEO, an online resource that aggregates journal policies on open science, categorizes journals as green when they allow archiving of both preprints and postprints (http://sherpa.ac.uk/romeo/index.php).

Benefits of preprints and postprints. Free access and OA to research for all is a primary benefit of preprints and postprints. Print repositories allow for immediate posting of research reports that are available freely to anyone in the world with internet access. This enables practitioners, parents, and others (e.g., some researchers in developing countries) who do not have personal or institutional subscriptions to access research. OA is especially important in applied fields such as special education in which policy and practice are informed directly by research findings (Adelson et al., 2019; Cook et al., 2018, 2019). Immediate and broad dissemination of research is also an important benefit of preprints and postprints. The peer-review process, although important, can be time-consuming; especially when articles undergo multiple rounds of review, sometimes with multiple journals. With the ever-changing landscape of special education policy and research, such delays can contribute to the research-to-practice gap.

Preprints and postprints may also help to address publication bias. Publication bias negatively affects the special education research base, as the lack of null and negative results in the published literature can result in inflated estimates of intervention effects (Cook & Therrien, 2017; Franco et al., 2014; Gage et al., 2017; Sham & Smith, 2014). Print repositories offer a medium for researchers to disseminate null or negative results that might otherwise be relegated to the file drawer. Availability of studies with null and negative findings is critical to understanding fully which practices are truly effective and for which groups of students (Cook et al., 2015; Cook & Therrien, 2017). Furthermore, preprints and postprints do not have page limits like journals, thereby allowing for full description of study methods, materials, and findings. Unrestricted space for methods and design may mitigate outcome-reporting bias and inform future replication studies.

Preprinting and postprinting can also benefit researchers by increasing accessibility to and impact of one’s research. In biology, for example, preprints are often shared on social media, cited in blogs, and even cited in journal articles (Fu & Hughey, 2019). About two thirds of preprints posted to bioRxiv.org were later published, and published articles with accompanying preprints had higher Altmetric Attention Scores and more citations than published articles without a preprint (Abdill & Blekhman, 2019; Fu & Hughey, 2019). Researchers have shared related stories about preprints positively affecting their careers (Kaiser, 2017).

Preprints and postprints also support feedback, collaboration, and early-career researchers (ECRs). Most print repositories allow for individuals to comment, endorse, or provide feedback on preprints and postprints. Peers can raise questions and offer recommendations for reporting the study and conducting future research. This feedback can inform and improve the research report and even lead to future collaborations. Furthermore, because preprints and postprints are openly accessible, they are often shared on social media like Twitter and blogs, fostering dialogue about research (Fu & Hughey, 2019). Preprints and postprints are more concrete than a vague “submitted for publication” entry on one’s vitae, and members of search committees can access and evaluate the actual preprinted manuscript—which may be especially beneficial for ECRs with a limited number of traditional publications.

Posting preprints and postprints. Posting preprints and postprints involve identifying a print repository, formatting the manuscript, and choosing an appropriate license (see Figure 1 in the online supplemental materials). There are multiple repositories such as Preprints (www.preprints.org), Advance (www.advance.sagepub.com), and Open Science Framework (OSF) Preprints (www.osf.io/preprints/). EdArXiv (www.edarxiv.org) is a repository specifically for the education research community. The process of posting to a print repository tends to be straightforward. In most cases, one simply creates a log-in and uploads the manuscript.
Preprints and postprints are posted quickly and typically reviewed only for content match with the server. The process for posting preprints and postprints is similar, but publishers and journals often place additional restrictions on when and where postprints may be published. Postprints can be posted to repositories as stand-alone manuscripts, or they can be posted as an update to a preprint to reflect changes that occurred from peer review.

To combat publication bias, preprints and postprints typically cannot be deleted once they have been posted to a server. Paper titles, abstracts, and authors can be revised or new drafts can be added to accommodate feedback and collaboration. Because of the permanence of preprints and postprints, researchers should inform themselves about the policies of journals to which they are considering submitting the manuscript.

Preprints and postprints are typically time stamped and given a digital object identifier (DOI). In repositories like the OSF, preprints and postprints are indexed by Google Scholar and Altmetrics, which increases visibility and searchability of scholarly work. In addition, repositories use licenses like Creative Commons Attribution (CC BY) to ensure attribution and appropriate dissemination of work. The CC BY license allows others to adapt and disseminate the work in any format or medium, provided the user cites the original work (Creative Commons, 2018). The time stamp, DOI, and license establish precedence and ensure that scholarly work will not be copied and published inappropriately by someone else (i.e., “scooped”).

**Open Access**

Although there is not an accepted, universal definition of OA (Piwowar et al., 2018), we define OA as peer-reviewed journal articles that are freely and openly accessible. Most peer-reviewed publications are behind a paywall (paid subscription), which limits their dissemination and diminishes their impact. OA provides an option for researchers, publishers, and funders to increase access to their research to anyone with internet access. Certain funding agencies now mandate OA publishing as a requirement to receive funding (National Science Foundation, 2015). OA options are generally categorized as gold, hybrid, green, bronze, and closed.

Gold OA occurs when peer-reviewed journals are completely open and accessible. Gold-OA journals are relatively rare in education, *AERA Open* is one example. Hybrid OA refers to closed journals that allow for authors to pay an article processing charge (APC) to both publish in the print journal and make their specific article open and available to all online. Gold- and hybrid-OA journals typically charge authors APCs to cover the costs of publishing. APCs for both gold OA and hybrid OA can be expensive, with some journals charging as much as US$3,000.

Green OA is when journals allow for the self-archiving of preprints and postprints. Rules for self-archiving vary across journals and publishers. Journals can specify where, when, and how manuscripts can be archived. Many journals allow researchers to post preprints and postprints to institutional repositories, personal blogs or websites, print repositories, or funder repositories. Some journals require embargo periods before preprints or postprints can be shared. Sometimes called delayed OA, researchers must wait until an embargo period of 1 to 3 years, depending on journal policy, has passed before posting the manuscript publicly. Embargo periods are a tool for publishers to incentivize journal subscriptions, which provide access to articles before the embargo period. Embargo periods apply primarily to postprints, as these manuscripts reflect modifications and improvements suggested during peer review and copy editing.

Bronze OA refers to articles that are made available on journal websites but do not carry an OA license. In most cases, articles are made available for a short period of time by the publisher, sometimes in conjunction with a special release or issue. Because there is no OA license attached to these articles, they can become closed at any time. Piwowar et al. (2018) reported that bronze OA is more prevalent than any other OA category.

Researchers can benefit from publishing their studies as OA, as OA publications are associated with greater citations, downloads, and attention on social media (Fu & Hughey, 2019; Piwowar et al., 2018). For example, Gershenson and colleagues (2019) found that when six high-impact educational journals removed their paywall (bronze OA) for a 2-month period, downloads increased 60% to 80%. Furthermore, OA publishing can benefit the field of special education by providing access to research for special education practitioners, administrators, and policy makers. This may help bridge the research-to-practice gap by making research available to those who make policy and instructional decisions for students with disabilities (Cook & Odom, 2013).

**Limitations of Preprints and Open Access**

Preprints and OA have the potential to advance the accessibility and impact of research, but there are important limitations to consider. One important concern about preprints is they typically have not undergone peer review, and therefore may have flawed methods and biased results, and should be interpreted and applied cautiously. Second, publishing OA can be time-consuming. Posting a preprint, for example, includes finding the journal or publisher policy, identifying an appropriate print repository, signing up for the repository, formatting the preprint, copywriting the preprint, and publishing the preprint online (see Figure 1 in the online supplemental materials). Each of these steps requires...
additional time and energy. A final concern related to preprints is the potential to compromise blind peer review. Potential reviewers may be exposed to a preprint and learn authors’ identities. They therefore become ineligible to serve as blind peer reviewers. Although difficulties in masking authors’ identities are not unique to preprints (Hill & Provost, 2003), the reduction of available blind reviewers is potentially problematic.

Purpose
As in other fields, scholars in special education must confront problems such as publication bias, replicability, and inaccessibility of research (Cook et al., 2018). Each of these problems threatens the formation and dissemination of a trustworthy research base that improves policy and practice. In applied fields such as special education, these issues are especially important. It has been recommended that special education stakeholders support and adopt preprints, postprints, and OA publishing to improve the accessibility and validity of the research base (Adelson et al., 2019). However, many researchers in the field are not well versed in journal and publisher policies related to preprints, postprints, and OA, which may hinder their adoption.

The purpose of this article is to review policies regarding preprints, postprints, and OA for journals and publishers in special education. Explicating these policies may, for example, help researchers avoid unwittingly posting a preprint without realizing their target journal does not allow submissions posted as preprints. Authors may also want to publish OA but are not familiar with APCs for a journal or the Gold-OA options offered by each publisher. In addition, researchers may need to understand which journals comply with funder mandates. Specifically, we pose the following research questions:

Research Question 1: What are preprint, postprint, and OA policies for special education journals?
Research Question 2: What are preprint, postprint, and OA policies for publishers of special education journals?

This study will help answer the call to create a more accessible and open research base (Adelson et al., 2019; Klebel et al., 2020; Piwowar et al., 2018).

Method
Journals
We reviewed the 40 journals categorized as special education journals by Journal Citation Reports in 2019 and 11 additional journals affiliated with the Council for Exceptional Children (CEC) and its divisions. We identified CEC journals by searching CEC and divisional websites. The 51 journal names are provided in Table 1.

Variables
From journal and publisher websites, we coded (a) journal name, (b) publisher, (e) preprint information on webpage, (d) acceptance of preprints, (e) types of preprints accepted, (f) acceptance of postprints, and (g) link to publisher info on preprints. We also coded for (h) OA policy (green, gold, bronze, hybrid, unstated), (i) link to publisher info on OA, (j) APC information on webpage and amount, (k) embargo information on webpage and embargo time, and (l) any additional OA or open-science information provided on webpage.

Procedures
Journal and publisher websites were initially searched in September 2019 (see Coding Manual in the online supplemental materials). First, each journal webpage was examined for preprints and postprint information. We determined that journals had preprint information, including information on green OA, self-archiving, and electronic manuscripts, on their webpage if there was any mention of preprints. Journals were coded as containing postprint information if there was any mention of postprints, accepted manuscripts, peer-reviewed manuscript, submitted manuscript, or preprints after peer review. We determined that a journal accepted preprints or postprints if they allowed (with or without conditions) preprints or postprints to be posted on print repositories, online, or social media. The types of preprints and postprints accepted were coded as any preprint/postprint, postprint after peer review, preprint before peer review, publisher-copy postprint, none, no policy, and unclear policy.

Second, journal webpages were examined for OA information. A journal was coded green if it allowed for preprints or postprints. A gold journal was a fully OA journal. A delayed OA journal is a green-OA journal with an embargo period, allowing delayed OA to articles. A hybrid journal allows researchers the option to publish a traditional article and make their article OA by paying an APC. If APC charges or embargo wait-times were not mentioned on a journal website, policies from the journal’s publisher were used as journal policy.

Third, the websites of publishers with multiple special education journals (i.e., SAGE, Elsevier, Taylor & Francis, Wiley, and Springer) were reviewed for general policies regarding preprints and postprints, OA, APC amounts, and embargo periods. The same processes and definitions used during the journal review were applied during the publisher review.

Inter-Rater Reliability
The first author trained a second researcher, a doctoral student in special education, on coding and search procedures on a subset of journals (n = 5) until 100% agreement was
| Journal | PreP info | Accept PrePs | Reject PrePs | Accept PostPs | OA info | APC info | APC amount (US$) | Embarg info | Embarg time a |
|---------|-----------|--------------|--------------|---------------|---------|----------|----------------|-------------|---------------|
| AAD     | No        | n/a          | n/a          | n/a           | No      | No       | n/a            | No          | 12b           |
| AJIDD   | No        | n/a          | n/a          | Yes           | No      | No       | n/a            | No          | n/a           |
| AD      | No        | n/a          | n/a          | Yes           | Yes     | Yes      | $2,750         | No          | 24b           |
| AEI     | No        | n/a          | n/a          | n/a           | No      | No       | $3,000b        | No          | n/a           |
| BD      | No        | n/a          | n/a          | n/a           | No      | No       | $3,000b        | No          | n/a           |
| BJLD    | Yes       | Yes          | No           | n/a           | Yes     | Yes      | $2,500         | No          | 24b           |
| CDTEI   | No        | n/a          | n/a          | n/a           | No      | No       | $3,000b        | No          | n/a           |
| CLTT    | Yes       | Yes          | No           | n/a           | Yes     | No       | $3,000b        | No          | n/a           |
| CDQ     | No        | n/a          | n/a          | n/a           | No      | No       | $3,000b        | No          | n/a           |
| Dyslex  | Yes       | n/a          | n/a          | Yes           | Yes     | Yes      | $3,000         | No          | 24b           |
| ETADD   | No        | n/a          | n/a          | n/a           | No      | No       | n/a            | No          | n/a           |
| ETC     | No        | n/a          | n/a          | n/a           | No      | No       | n/a            | No          | n/a           |
| EJSNE   | No        | n/a          | n/a          | Yes           | Yes     | Yes      | $2,950         | Yes         | 18            |
| EC      | No        | n/a          | n/a          | n/a           | No      | No       | $3,000b        | No          | n/a           |
| EX      | No        | n/a          | n/a          | Yes           | Yes     | Yes      | $2,950         | Yes         | 18            |
| FADD    | No        | n/a          | n/a          | Yes           | Yes     | No       | $3,000b        | No          | n/a           |
| GCQ     | Yes       | n/a          | n/a          | Yes           | No      | Yes      | $1,000b        | No          | n/a           |
| HAS     | No        | n/a          | n/a          | Yes           | Yes     | Yes      | $2,950         | Yes         | 18            |
| IYC     | No        | n/a          | n/a          | Yes           | Yes     | Yes      | $2,000         | No          | 12b           |
| IDD     | Yes       | No           | Yes          | No            | No      | No       | n/a            | No          | n/a           |
| IJDD    | No        | n/a          | n/a          | Yes           | Yes     | Yes      | $2,950         | Yes         | 12            |
| IJDE    | No        | n/a          | n/a          | Yes           | Yes     | Yes      | $2,950         | Yes         | 18            |
| ISC     | No        | n/a          | n/a          | No            | No      | No       | $3,000b        | No          | n/a           |
| JEG     | Yes       | n/a          | n/a          | Yes           | No      | No       | $3,000b        | No          | n/a           |
| JBE     | No        | n/a          | n/a          | Yes           | Yes     | No       | $2,750b        | No          | 24b           |
| JDSDE   | Yes       | n/a          | n/a          | Yes           | Yes     | Yes      | $3,639         | No          | 12            |
| JEJ     | Yes       | n/a          | n/a          | Yes           | Yes     | Yes      | $3,000         | No          | n/a           |
| JEBD    | No        | n/a          | n/a          | Yes           | Yes     | No       | $3,000b        | No          | n/a           |
| JFD     | Yes       | n/a          | n/a          | Yes           | Yes     | Yes      | $2,300         | Yes         | 24            |
| JDD     | No        | n/a          | n/a          | Yes           | Yes     | Yes      | $2,950         | Yes         | 12            |
| JDR     | Yes       | n/a          | n/a          | Yes           | Yes     | Yes      | $3,300         | No          | 12            |
| JSNE    | No        | n/a          | n/a          | n/a           | No      | No       | n/a            | No          | n/a           |
| JLD     | No        | n/a          | n/a          | No            | No      | No       | $3,000b        | No          | n/a           |
| JMHD    | No        | n/a          | n/a          | Yes           | Yes     | Yes      | $2,950         | Yes         | 12            |
| JPBI    | No        | n/a          | n/a          | No            | No      | No       | $3,000b        | No          | n/a           |
Table 1. (continued)

| Journal | PreP info | Accept PrePs | Reject PrePs | Accept PostPs | OA info | APC info | APC amount (US$) | Embarg info | Embarg timea |
|---------|-----------|--------------|--------------|---------------|---------|----------|----------------|-------------|--------------|
| JSE     | No        | n/a          | n/a          | n/a           | No      | No       | $3,000b        | No          | n/a          |
| JSEL    | No        | n/a          | n/a          | n/a           | No      | No       | n/a            | No          | n/a          |
| JSET    | Yes       | No           | Yes          | n/a           | No      | No       | $3,000b        | No          | n/a          |
| LDRP    | Yes       | n/a          | n/a          | n/a           | Yes     | Yes      | $2,500         | No          | 24b          |
| LDQ     | No        | n/a          | n/a          | n/a           | No      | No       | $3,000b        | No          | n/a          |
| MVED    | No        | n/a          | n/a          | n/a           | Yes     | No       | n/a            | No          | n/a          |
| PDERS   | No        | n/a          | n/a          | n/a           | Yes     | No       | n/a            | No          | n/a          |
| RWQ     | No        | n/a          | n/a          | n/a           | Yes     | Yes      | $2,950         | Yes         | 18           |
| RSE     | No        | n/a          | n/a          | n/a           | No      | No       | $3,000b        | No          | n/a          |
| RPPSD   | Yes       | No           | Yes          | Yes           | No      | No       | $3,000b        | No          | n/a          |
| RASD    | Yes       | n/a          | Yes          | Yes           | Yes     | Yes      | $2,840         | Yes         | 24           |
| RDD     | Yes       | n/a          | Yes          | Yes           | Yes     | Yes      | $2,450         | Yes         | 24           |
| TESE    | Yes       | n/a          | n/a          | n/a           | Yes     | Yes      | $3,000         | No          | n/a          |
| TEC     | No        | n/a          | n/a          | n/a           | No      | No       | $3,000b        | No          | n/a          |
| TECSE   | No        | n/a          | n/a          | n/a           | No      | No       | $3,000         | No          | n/a          |
| VIDEQ   | No        | n/a          | n/a          | n/a           | No      | No       | n/a            | No          | n/a          |
| Total   | 16 (31%)  | 2 (4%)       | 3 (6%)       | 6 (12%)       | 26 (49%)| 20 (39%)| M = US$2,869   | 11 (22%)    | M = 18       |

Note. PreP = preprint; PostP = postprint; OA = open access; APC = article processing charge; embarg = embargo; AAD = American Annals of the Deaf; AJIDD = American Journal on Intellectual and Developmental Disabilities; AD = Annals of Dyslexia; AEI = Assessment for Effective Intervention; BD = Behavior Disorders; BJLD = British Journal of Learning Disabilities; CDTEI = Career Development and Transition for Exceptional Individuals; CLTT = Child Language Teaching and Therapy; CDQ = Communication Disorders Quarterly; Dyslex = Dyslexia; ETADD = Education and Training in Autism and Developmental Disabilities; ETC = Education and Treatment of Children; EJSNE = European Journal of Special Needs Education; EC = Exceptional Children; EX = Exceptionality; FADD = Focus on Autism and Other Developmental Disabilities; GCQ = Gifted Child Quarterly; HAS = High Ability Studies; IYC = Infants and Young Children; IDD = Intellectual and Developmental Disabilities; IJDDE = International Journal of Developmental Disabilities; JDEDE = Journal of Disability, Development, and Education; JSC = Intervention in School and Clinic; JEG = Journal for the Education of the Gifted; JBE = Journal of Behavioral Education; JSDE = Journal of Deaf Studies and Deaf Education; JEI = Journal of Early Intervention; JEBD = Journal of Emotional and Behavioral Disorders; JFD = Journal of Fluency Disorders; JIDD = Journal of Intellectual and Developmental Disability; JIDR = Journal of Intellectual Disability Research; JSNE = Journal of International Special Needs Education; JLD = Journal of Learning Disabilities; JMHID = Journal of Mental Health in Intellectual Disabilities; JPB1 = Journal of Positive Behavior Interventions; JSE = The Journal of Special Education; JSEL = Journal of Special Education Leadership; JSET = Journal of Special Education Technology; LDRP = Learning Disabilities Research and Practice; LDQ = Learning Disability Quarterly; MVED = Multiple Voices for Ethnically Diverse Exceptional Learners; PDERS = Physical Disabilities Education and Related Services; RWQ = Reading and Writing Quarterly; RSE = Remedial and Special Education; RPPSD = Research and Practice for Persons with Severe Disabilities; RASD = Research in Autism Spectrum Disorder; RDD = Research in Developmental Disabilities; TESE = Teacher Education and Special Education; TEC = Teaching Exceptional Children; TECSE = Topics in Early Childhood Special Education; VIDEQ = Visual Impairment and Deafblind Education Quarterly.

aReported in months.
bInformation gathered from publisher, rather than journal, website.
achieved. The second rater then double coded the remaining 46 journals. Inter-rater reliability for coding was calculated by adding the number of agreements from both reviewers divided by the total number of codes, resulting in 96% agreement across variables and journals. There was a total of 12 disagreements: two relating to APC amounts and information, two relating to OA information, and eight relating to available preprint information on journal webpages. The eight preprint disagreements were related to one publisher (Taylor & Francis) that mentioned a print repository on their journal websites but made no reference to preprints or green OA. These were ultimately coded as having no preprint information on their page. We resolved the remaining four disagreements, which were coding errors.

Results

We reviewed the websites of 51 special education journals as well as the websites of five publishers who publish the majority of special education journals (i.e., SAGE, Taylor & Francis, Wiley, Elsevier, Springer) for preprint, postprint, and OA policies. See Tables 1 and 2 for a summary of findings by journal and publisher, respectively.

Journal Preprint Policies

Every webpage on each journal’s website was searched for any mention of preprints, green OA, self-archiving, and electronic manuscripts. Sixteen journals (31%) provided information on preprints. Only two journals explicitly indicated that they accepted preprints (i.e., The British Journal of Learning Disabilities and Child Language Teaching and Therapy). Both journals allowed preprints to be posted before peer review. The British Journal of Learning Disabilities explicitly stated that the preprint must be posted on a non-commercial repository, whereas Child Language Teaching and Therapy provided no specification as to where preprints could be posted. Both journals asked that authors provide a link on the preprint to the published paper after publication, but neither provided a policy for sharing preprints on social media, personal websites, or institutional repositories. Finally, Child Language Teaching and Therapy restricted authors from updating preprints during the review process.

Three journals (i.e., Intellectual and Developmental Disabilities, Journal of Special Education Technology, and Research and Practice for Persons with Severe Disabilities) disallowed submission of preprinted manuscripts. These journals did not accept submissions that had been made available as a preprint or otherwise posted on the internet.

Eleven other journals (a) mentioned preprints or (b) provided a specific link to a publisher policy but provided no indication on the journal page that they accepted or rejected preprints. Even when links were provided to publisher policies, preprint policies were not always readily apparent, as the linked webpages were often general overviews of publishing policies. For example, the Journal of Early Intervention provided a link to additional information on Green OA. The linked website is SAGE’s Journal Author Gateway with information on publishing courses, guides, blogs, a print repository, and other SAGE services (SAGE, 2020). Green OA information can be found by following two additional links.

On the websites of 26 journals, although no information on preprints was provided, the journals’ publishers provided policies regarding preprints (all of which allowed for some type of preprint). One might assume that these journals follow their publisher guidelines and accept preprints. The remaining nine journals provided no policy on preprints on either journal or publisher websites. These journals either worked with smaller publishers that provided no policies on preprints or were CEC-division journals.

Journal Postprint Policies

Six journals provided information on postprints. Two journals (i.e., Infants and Young Children and Intellectual and Developmental Disabilities) allowed postprints (the accepted version of a manuscript, but prior to journal formatting), but only for research funded by particular agencies. These journals allowed authors to deposit their postprint in certain funder repositories: National Institutes of Health (NIH), Institute of Education Services (IES), Wellcome Trust, and the Howard Hughes Medical Institute. Infants and Young Children required authors to sign a revised copyright agreement to post the postprint in the funder repository.

An additional three journals (i.e., The Journal of Fluency Disorders, Research in Autism Spectrum Disorder, and Research in Developmental Disabilities) allowed authors to post postprints (the accepted version of a manuscript, but prior to journal formatting) on their institutional repositories. These journals required the postprint to be submitted for internal use only for an embargo period of 24 months. However, a link was provided on each of the journal websites to the Elsevier (publisher) policy that allowed authors more freedom in where and how they post their postprint, representing a potential discrepancy between journal and publisher policies.

One journal (i.e., The American Journal on Intellectual and Developmental Disabilities) allowed authors to post postprints (the accepted version of a manuscript, but prior to journal formatting) in both funder repositories (only if funded by the NIH or the Wellcome Trust) and institutional repositories. Although the journal allowed for postprints on institutional repositories regardless of funding source, no additional information was provided on whether the submission could be open or private, and whether there was an
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Embargo period. The journal stipulated that a citation to the final, published article should be present on the postprint.

Journal OA Policies

Twenty-five journals provided no information on OA on the journal page, whereas 26 explicitly mentioned OA information. Of the 26 journals that provided information about OA on their websites, 21 indicated hybrid publishing options, 11 provided delayed OA publishing options, nine provided green-OA publishing options, and two (i.e., Visual Impairment and Deafblind Education Quarterly and Physical Disabilities: Education and Related Services) are gold-OA journals—their entire journal is free and publicly available online. Most journals that provided OA options stipulated more than one OA option. For example, The Journal of Early Intervention provided the option to submit to SAGE Choice, a hybrid option, and also indicated compliance with SAGE’s green-OA policy (see Table 1).

Twenty journals noted APCs for making articles OA on their webpages, APCs for another 20 journals were provided on publisher webpages, and no information could be found for 11 journals. The APCs for journals varied from US$1,000 to US$3,000, with a mean cost of US$2,869 (see Table 1). The APCs posted on journal and publisher webpages for specific journals were not always consistent. Some journals and publishers provided different APCs for the type of publication and location of the author. For example, Annals of Dyslexia charges authors within the United States US$2,750 to publish hybrid OA, whereas authors in Great Britain and Europe pay US$2,310 and US$2,340, respectively (Wiley, 2020). APCs tended to be similar for journals with the same publisher, although Gifted Child Quarterly’s APC (US$1,000) was notably lower than other SAGE journals.

Eleven journals provided information on embargos on their webpages. Eight journals provided a link to the publisher policy, and three journals provided the embargo times for postprints. Embargo times ranged from 12 to 24 months, and the average embargo time for publicly posting postprints was 18 months (see Table 1). The information provided on journal websites seldom clarified how an article could be used after an embargo period, which version of the manuscript is embargoed, or the type of copyright license that applied to work after the embargo period.

Publisher Preprint Policies

All five publishers accepted preprints and each defined preprints as a manuscript that has not been peer reviewed (i.e., the version of a manuscript that was submitted for peer review; see Table 2). SAGE and Elsevier did not place limitations on where and how preprints are posted. Taylor & Francis, Wiley, and Springer stated that preprints should not be posted on commercial or for-profit servers or repositories. Taylor & Francis allowed for preprints to be posted on social media, institutional repositories, print repositories, and personal websites. Wiley and Springer allowed for preprints to be posted to institutional repositories, print repositories, and personal websites, but made no mention of social media. Each publisher also asked or required authors to cite the published article on the preprint following publication. This can be accomplished on print repositories by updating the preprint to include the citation and DOI of the published article.

Publisher Postprint Policies

Each of the five publishers permitted postprints, and the definitions of postprints were similar: author-formatted versions of accepted manuscripts that have been revised and edited through the review process. SAGE is the only publisher that allowed postprints without restrictions or embargo periods. Taylor & Francis allowed postprints to be posted on social media or personal websites after publication. Embargo periods of 12 to 18 months applied for

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Table 2. Journal Open-Access Information, by Publisher.

| Open Access Features | Elsevier n = 3 | SAGE n = 22 | Springer n = 2 | Taylor & Francis n = 8 | Wiley n = 4 |
|----------------------|----------------|-------------|----------------|------------------------|-------------|
| Journals with preprint info | 100% | 32% | 0 | 0 | 100% |
| Journals with postprint info | 100% | 0 | 0 | 0 | 0 |
| Journals with OA info | 100% | 23% | 100% | 100% | 100% |
| Journals with APC info | 100% | 9% | 50% | 100% | 100% |
| Average APC amount (US$) | $2,530 | $2,909 | $2,750 | $2,950 | $2,825 |
| Journals with embargo info | 100% | n/a* | 0 | 100% | 0 |
| Average embargo (months) | 24 | n/a* | 24 | 16 | 18 |

Note. Information found on the journal webpage may not reflect publisher policy. n = number of journals; OA = open access; APC = article processing charge; Info = information.

*SAGE allows for immediate use of postprints, thus embargo periods do not apply.
postprints posted to institutional repositories, subject-based print repositories, or scholarly collaboration networks like Mendeley. However, Taylor & Francis allowed authors to immediately deposit postprints into institutional repositories so long as it is a closed deposit (i.e., only available to researchers at the same university and not the public).

Wiley allowed postprints on the author's personal website, institutional repository, or subject-based print repositories following an embargo period. Embargo periods varied from 12 to 24 months depending on individual journal policies. Authors may immediately post manuscripts to institutional repositories as an open deposit. Elsevier permitted immediate posting of postprints to personal websites, print repositories as an update to a previously posted preprint, or institutional repositories as a closed deposit. Following an embargo period of 24 months, authors may post a postprint to an institutional repository as an open deposit. Springer’s policy stated that authors may immediately post postprints to personal websites. Following an embargo period of 12 months, authors may make a postprint publicly available on institutional or funder repositories.

**Publisher Open Access Policies**

All five publishers described green-, hybrid-, and gold-OA publishing options. The options included preprints, postprints, journals that allow hybrid articles for an APC, gold journals, and articles selected by the editor or publisher to be made OA without APCs (i.e., bronze OA).

All of the publishers provided the option for authors to make their articles freely available online pending payment of an APC (hybrid OA). APCs differed between publishers and between journals with the same publisher. The highest average APC for special education journals is Taylor & Francis at US$2,950, and the lowest is Elsevier at US$2,530. In some cases, Elsevier, Wiley, and SAGE lowered journal subscription prices for all individuals and institutions due to being paid APCs.

**Discussion**

The purpose of this study was to review and examine the preprint, postprint, and OA policies for special education journals and publishers of special education journals. Based on the current review, there is considerable room for improvement related to journals posting complete and clear policies. Only three journals (Journal of Fluency Disorders, Research in Autism Spectrum Disorder, and Research in Developmental Disabilities) provided information on their websites for each OA feature we examined (preprints, postprints, OA options, APC, embargo period), and most journals (n = 27) provided information on one or none of the features. Only 10% and 12% of journal websites provided explicit preprint and postprint policies, respectively; whereas 50% of journals provided OA policies.

Journal and publisher policies were often marked by inconsistency and variability. Although some journal websites provided a link to publisher policies, some publisher policies were potentially confusing or difficult to find on publisher websites. For example, links from many journal pages led to general publisher policies or generic homepages, and information on preprints, postprints, or OA policies was not readily apparent. We also found occasional disagreements between journal and publisher policies, which can lead to confusion. For example, one journal and its publisher reported different APC amounts, and another journal linked a publisher policy on postprints that differed from the journal’s policy. It is important to remember that stated policies of specific journals do not always align with the stated policies of their publishers (see Table 2). For example, SAGE allows preprints to be posted through any medium, but multiple SAGE journals restrict where preprints may be posted. Furthermore, journals often reported incomplete policies. For example, some journals reported preprint policies, but failed to report a postprint policy.

These results are consistent with Klebel and colleagues’ (2020) findings that more than 50% of social science journals reported no or unclear preprints and postprint policies. Such vague policies have implications for special educational research and practice. Adelson et al. (2019) recommended that special education researchers familiarize themselves with journal preprint policies and routinely post scholarly work on print repositories. However, unstated or confusing policies can make it challenging for special education researchers to share their research via OA. As such, the benefits of OA publishing, including democratizing access to the research that should inform special education policy and practice, are unlikely to be fully realized without greater clarity.

Post OA policies were more common than preprints and postprint policies among journals, as almost 50% of journal websites reported OA policies. Specifically, hybrid-OA options and APCs were mentioned on the websites of 20 journals. It is encouraging that many special education journals provided this information; however, APCs involve a substantial cost to authors, in contrast to preprints and postprints—which do not involve a cost to authors, but for which journals infrequently provide clear policies.

Publisher policies tended to be clearer and more frequently available than journal policies. Because each of the publishers we examined published journals in multiple fields, likely including fields in which preprints, postprints, and OA are relatively well established, it is perhaps not surprising that they have developed and posted such policies. However, policies were often difficult to find on publisher websites, small or independent publishers rarely provided policies, and policies were highly variable across publishers. For example, the five publishers generally agreed on the definition of a postprint, but differed drastically on restrictions such as where postprints can be shared, how
authors should copyright postprints, and how long before postprints can be made freely available to the public.

**Recommendations**

First, we recommend that special education researchers familiarize themselves with preprint, postprint, and OA policies and post their manuscripts as preprints and postprints when possible. Researchers can even post the author-formatted version of already-published manuscripts. Online tools, such as https://shareyourpaper.org/, can help ensure that researchers are compliant with journal and publisher policies. Second, we recommend that journals develop and post clear preprint, postprint, and OA policies. Policies should include definitions of preprints and postprints, where preprints and postprints may be shared, OA options, APCs, and embargo periods. The lack of posted and clear policies for many special education journals is potentially confusing, consumes unnecessary time for authors to locate, and may lead to problems for both authors and journals. For example, researchers may choose not to submit an article that they preprinted to a journal because they cannot find the journal’s preprint policy.

Third, journals and researchers should take steps, as feasible, to facilitate making publications OA. For example, authors may write APCs into grant proposals or seek institutional funding to publish OA. In addition, editors may have some power in reducing APCs. The editors of *Gifted Child Quarterly*, the special education journal with the lowest APC—US$2,000 lower than most SAGE journals—explained that they asked SAGE and the *Gifted Child Quarterly* board for approval to lower the APC to accommodate a researcher with limited funds. The board approved the change and now all researchers can publish OA in *Gifted Child Quarterly* for less (M. Matthews, personal communication, September 18, 2019).

Fourth, we recommend that institutions of higher education, professional organizations, and journals recognize, encourage, and accept preprints and postprints. Colleges of education and professional organizations might consider awarding a preprint/postprint of the year and recognizing preprints and postprints in tenure and promotion decisions to help encourage researchers to post preprints and postprints. Some universities and funders have already begun to recognize faculty for open and transparent research (Berkeley Initiative for Transparency in the Social Sciences, n.d.; Texas Tech University Libraries, n.d.), and recognition of preprints and postprints could be an extension of these awards.

Many publishers currently award open-science badges to recognize researchers who have shared data, shared materials, and preregistered their research to support open practices (Kidwell et al., 2016). Publishers could expand these badges to include a preprints and postprint badge to help recognize and reinforce the use of preprints and postprints. Although preprints and postprints may be perceived as competition to journals, they can drive traffic to journals through increased citations and social media attention (Fu & Hughey, 2019). Indeed, the citation advantage for published articles posted as preprints is well documented in the literature (e.g., Piwowar et al., 2018).

Finally, we recommend special education researchers conduct meta-science research on OA publishing in the field, especially on preprints and postprints. For example, updating this review periodically will provide up-to-date support for special education researchers to implement OA practices and to monitor changes to OA policies in the field over time. Researchers should also consider tracking special education content and downloads on print repositories, exploring whether a citation advantage for OA publishing exists in the field, and examining stakeholder perceptions of preprints and postprints.

**Limitations**

Limitations to this study should be considered when interpreting study findings. First, the sample of journals is not exhaustive of journals publishing special education research. Many journals in related fields publish research related to special education, and we may have excluded some relevant journals. Second, although journal and publisher websites were thoroughly reviewed, we did not review information from other sources such as printed materials or publisher blogs. There may be additional policies or clarification of policies that we did not discover. Finally, we reviewed journal and publisher policies, but were not able to determine whether or the extent to which journal editors’ actions corresponded with these policies. For example, we did not verify that journals with policies prohibiting the submission of preprinted manuscripts actually rejected submissions that had been preprinted.

**Conclusion**

Preprints, postprints, and OA publishing allows access to research for consumers without journal subscriptions (e.g., practitioners, parents, researchers in developing countries); and preprints can eliminate delayed accessibility to research due to peer review and may foster increased feedback and collaboration. Although major publishers provide guidance on preprint, postprint, and OA policies, most special education journals provide little information on these policies. The lack of complete and clear journal policies is confusing and potentially time-consuming for researchers. Furthermore, expensive APCs and long embargo periods make it difficult for researchers to increase accessibility to their work by publishing OA. Special education journals and publishers posting clear policies enhance the likelihood...
of researchers being fully informed of and engaging in preprints, postprints, and OA publishing, which can benefit both research and research consumers. Making research accessible and open can help bridge the research-to-practice gap, will speed dissemination of findings, and may combat publication bias, which collectively contribute to improving instruction and outcomes for students with disabilities.

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References
Abdill, R. J., & Blekhman, R. (2019). Meta-research: Tracking the popularity and outcomes of all bioRxiv preprints. eLife, 8, Article e45133. https://doi.org/10.7554/elife.45133

Adelson, J. L., Barton, E., Bradshaw, C., Bryant, B., Bryant, D., Cook, B. G., Coyne, M. D., deBettencourt, L., DeHaven, A. C., Dymond, S. K., Esposito, J., Farmer, T. W., Flake, J. K., Gage, N. A., Kennedy, M. J., Kern, L., Lane, K. L., Lee, D. L., Lembke, E., . . . Troia, G. A. (2019, February 18). A roadmap for transparent research in special education and related disciplines. Advance online publication. https://doi.org/10.31219/osf.io/sqfy3

Berkeley Initiative for Transparency in the Social Sciences. (n.d.). Learner-Rosenthal prizes for open social science. https://www.bitss.org/ir-prizes/

Cook, B. G., Buysse, V., Klingner, J., Landrum, T. J., McWilliam, R. A., Tankersley, M., & Test, D. W. (2015). CEC’s standards for classifying the evidence base of practices in special education. Remedial and Special Education, 36(4), 220–234. https://doi.org/10.1177/0741932514557271

Cook, B. G., Lloyd, J. W., Mellor, D., Nosek, B. A., & Therrien, W. J. (2018). Promoting open science to increase the trustworthiness of evidence in special education. Exceptional Children, 85(1), 104–118. https://doi.org/10.1177/0014402918793138

Cook, B. G., Lloyd, J. W., & Therrien, W. J. (2019). Open science in the field of emotional and behavioral disorders. Education and Treatment of Children, 42(4), 579–600. https://doi.org/10.1353/etc.2019.0027

Cook, B. G., & Odom, S. L. (2013). Evidence based practices and implementation science in special education. Exceptional Children, 79(3), 135–144. https://doi.org/10.1177/001440291307900201

Cook, B. G., & Therrien, W. J. (2017). Null effects and publication bias in special education research. Behavioral Disorders, 42(4), 149–158. https://doi.org/10.1177/0198742917709473

Creative Commons. (2018). Attribution 4.0 international. https://creativecommons.org/licenses/by/4.0/

Franco, A., Malhotra, N., & Simonovits, G. (2014). Publication bias in the social sciences: Unlocking the file drawer. Science, 345(6203), 1502–1505. https://doi.org/10.1126/science.1255484

Fu, D. Y., & Hughey, J. J. (2019). Releasing a preprint is associated with more attention and citations for the peer-reviewed article. eLife, 8, Article e52646. https://doi.org/10.7554/elife.52646

Gage, N. A., Cook, B. G., & Reichow, B. (2017). Publication bias in special education meta-analyses. Exceptional Children, 83(4), 428–445. https://doi.org/10.1177/0014402917691016

Gershenson, S., Polikoff, M. S., & Wang, R. (2019). When paywall goes AWOL: The demand for open access education research. Institute for Labor Economics Discussion Paper No. 12158. https://www.iza.org/publications/dp/12158

Hill, S., & Provost, F. (2003). The myth of the double-blind review? Author identification using only citations. ACM SIGKDD Explorations Newsletter, 5(2), 179–184. https://doi.org/10.1145/80972.981001

Kaiser, J. (2017). Are preprints the future of biology? A survival guide for scientists. Science. Advance online publication. https://doi.org/10.1126/science.aau0747

Kidwell, M. C., Lazarević, L. B., Baranski, E., Hardwicke, T. E., Piechowiak, S., Falkenberg, L. S., Kennett, C., Slowik, A., Sonnleitner, C., Hess-Holden, C., Errington, T. M., Fiedler, S., & Errington, T. M. (2016). Badges to acknowledge open science contributions. Science Translational Medicine, 8(365), 149–158. https://doi.org/10.1126/scitranslmed.aaf1862

Klebel, T., Reichmann, S., Polka, J., McDowell, G., Penfold, N., Hindle, S., & Ross-Hellauer, T. (2020). Peer review and preprint policies are unclear at most major journals. PLoS ONE, 15(10), e0239518. https://doi.org/10.1371/journal.pone.0239518

Lloyd, J. W., & Therrien, W. J. (2018). Preview and introduction of open-science guidelines. Exceptional Children, 85(1), 6–9. https://doi.org/10.1177/0014402918795348

National Science Foundation. (2015, March 18). NSF’s public access plan. https://www.nsf.gov/pubs/2015/nsf15052/nsf15052.pdf

Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. Science, 349(6251), 943–951. https://doi.org/10.1126/science.aac4716

Piwowar, H., Priem, J., Larivière, V., Alperin, J. P., Matthijs, L., Norlander, B., Farley, A., West, J., & Haustein, S. (2018). The state of OA: A large-scale analysis of the prevalence and impact of open access articles. PeerJ, 6, Article e4375. https://doi.org/10.7717/peerj.4375
SAGE. (2020, April 6). Journal author gateway. https://us.sagepub.com/journal-author-gateway
Sham, E., & Smith, T. (2014). Publication bias in studies of an applied behavior-analytic intervention: An initial analysis. Journal of Applied Behavior Analysis, 47(3), 663–678. https://doi.org/10.1002/jaba.146
Texas Tech University Libraries. (n.d.). Open access award. https://www.depts.ttu.edu/library/grants/open-access-award/index.php
University of California Academic Senate. (2019, February 28). University of California Academic Council statement on the university’s negotiations with Elsevier Publishing. https://senate.universityofcalifornia.edu/_files/reports/academic-council-statement-elsevier-feb28.pdf
van der Zee, T., & Reich, J. (2018). Open education science. AERA Open, 4(3), 1–15. https://doi.org/10.1177/2332858418787466
van Dijk, W., Schatschneider, C., & Hart, S. (2020). Open science in education sciences. Journal of Learning Disabilities, 54(2), 139–152. https://doi.org/10.1177/0022219420945267
Wiley. (2020). Article publication charges. https://authorservices.wiley.com/author-resources/Journal-Authors/open-access/article-publication-charges.html