Adoption of Open Science Practices in Psychology and Education Research

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Open science practices like data and code availability are (what exactly). To what extent do researcher actually implement OSF-practices in their publications? Do institutions explicitly value these principles in their hiring process and research conduct?

We examine open science practices within the top 10 journals by h_5-index in Special Education, Education and Psychology. Specifically, we analyse the frequency of *open science statements* and *data and code*-availability in [N] published open access articles alongside the prevalence of open science *expectations* and *requirements* in job advertisments for professorships at German universities. We found that bla ...

CCS Concepts: • **Software and its engineering** → **General programming languages**; • **Social and professional topics** → *History of programming languages*.

Additional Key Words and Phrases: keyword1, keyword2, keyword3

1 Introduction

2 Analysis

rieser: Should we provide a sample of keywords here?

2.1 Job postings for professorships

We analysed job postings for professorships from the *Academic Job Posting Service of the German Association of University Professors and Lecturers* [1] pubilshed between January 2024 and [tbd.] 2025. Out of a total of N_A = 295 postings, 18 of them explicitly mentioned keywords related to open science. While all 18 described open science as desirable, only [k=6] required a formal statement. Exactly 1 was a specifically created "W2 Open Science" professorship . We identified these postings by matching keywords, their mangled variants, and partial sentences and extracting their containing sentences; the final classification however was based on manual review of the corresponding paragraphs.

rieser: double check this

rieser: Should we analyse Subject and department? Does it matter if 4 of these were from the same university? Does English <-> German matter?

rieser: I need to add to the code here to make sure that all keywords are hit and all of them provide a paragraph. Else the desirable <-> requirement stat might be wrong.

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*with author1 note

†with author2 note

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2.2 Publications

We analysed [N=5500] open access publications from Frontiers in Education filtered by the OpenAlex index [6]. In this process, we checked for the presence of either/or an open science statement, a data availability statement, an open access dataset or open access code. Based on this, we found that [k_1 out of N] included a dataset, [k_2 out of N] included their code, [k_3 out of N] included an open science statement of data availability statement. [k_4 out of N] contained all 3.

rieser: Should we devise a score here? So dataset + statement + code gives highest score.

We analysed the top 20 Journals in education and special education. For a full list see List of Journals. We filtered these journals using the OpenAlex index [6].

3 Implementation

We extracted all *works* from the OpenAlex [6] corpus that were tagged as belonging to the fields Psychology or Education. From these records, we retained the ones that included at least one linked open access PDF. To manage this dataset, we implemented a database consisting of two tables: an **index** table containing the metadata for each entry, and a **pdfs** table storing information about the retrieved documents.

rieser: explain what this means or phrase differently

rieser: This is not done yet

We have used a multitude of tools including Grobid [2], metacheck [5], rapidfuzz [4], sqlite3, mullvad-vpn [3], R [7],

4 Related Work

We could mention datastet here, even if we adapt it. Otherwise, fexrep [9].

5 Conclusion

Appendix

List of Journals

Table 1. List of journals analysed, with ISSNs and OpenAlex IDs, ranked by cite(googlescholaretc)

#	Name	Issn	IssnO	OpenAlexId
1	International Journal of Inclusive Education	1360-3116	1464-5173	
2	European Journal of Special Needs Education	0885-6257	1469-591X	s136622136

Table 2. List of Psychology Journals analysed, with ISSNs and OpenAlex IDs, ranked by cite(googlescholaretc)

Rank	Name	Issn	IssnO	OpenAlexId	NumOpenAccess	PctOfTotal
1	Frontiers in Psychology	1664-1078		s9692511	48290	99.6
2	Perspectives on Psychological Science	1745-6916	1745-6924	s27228949	509	34.0
3	Trends in Cognitive Sciences	1364-6613	1879-307X	s192051125	1097	25.8
4	Current Psychology	1046-1310	1936-4733	s203585231		
5	Current Opinion in Psychology					
6	Personality and Individual Differences					
7	Clinical Psychology Review					
8	Journal of Applied Psychology					
9	Journal of Personality and Social Psychology					
10	Educational Psychology Review					

Data Availability Statement

Our code, data and evaluations are available on GitHub [8] or on osf or on zenodo??.

Acknowledgments

References

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[2] 2008–2025. GROBID. https://github.com/kermitt2/grobid. swh:1:dir:dab86b296e3c3216e2241968f0d63b68e8209d3c

[3] 2025. *mullvad-vpn: Release 2025.14.* https://mullvad.net/en

[4] Max Bachmann. 2025. *rapidfuzz/RapidFuzz: Release 3.13.0.* doi:10.5281/zenodo.15133267

[5] Lisa DeBruine and Daniel Lakens. 2026. *metacheck: Check Research Outputs for Best Practices.* https://github.com/scienceverse/metacheck R package version 0.0.0.9065.

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