

Adoption of Open Science Practices in Psychology and Education Research

JEREMIAS RIESER*, Ludwig-Maximilians-University of Munich, Germany

MARKUS GEBHARDT†, Ludwig-Maximilians-University of Munich, Germany

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 *h₅-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 advertisements 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

ACM Reference Format:

Jeremias Rieser and Markus Gebhardt. 2017. Adoption of Open Science Practices in Psychology and Education Research. *Proc. ACM Program. Lang.* 1, 1, Article 1 (January 2017), 3 pages. <https://doi.org/10.1145/nnnnnnn>. nnnnnnn

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] published 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.

*with author1 note

†with author2 note

Authors' Contact Information: Jeremias Rieser, Department of Special Education, Ludwig-Maximilians-University of Munich, City1, State1, Germany, jeremias.rieser@tum.de; Markus Gebhardt, Department2a, Ludwig-Maximilians-University of Munich, City2a, State2a, Germany, first2.last2@inst2a.com.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than the author(s) must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org.

© 2017 Copyright held by the owner/author(s). Publication rights licensed to ACM.

ACM 2475-1421/2017/1-ART1

<https://doi.org/10.1145/nnnnnnn.nnnnnnn>

50 2.2 Publications

51 We analysed [N=5500] open access publications from Frontiers in Education filtered by the OpenAlex
 52 index [6]. In this process, we checked for the presence of either/or an open science statement, a
 53 data availability statement, an open access dataset or open access code. Based on this, we found
 54 that [k_1 out of N] included a dataset, [k_2 out of N] included their code, [k_3 out of N] included an
 55 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.

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

58 3 Implementation

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

rieser: explain what this means or phrase differently

rieser: This is not done yet

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

66 4 Related Work

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

68 5 Conclusion

69 Appendix

70 List of Journals

71 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

83 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					

99 Data Availability Statement

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

102 Acknowledgments

103 This material is based upon work supported by the National Science Foundation under Grant
104 No. nnnnnnnn and Grant No. mmmmmmm. Any opinions, findings, and conclusions or recomme-
105 dations expressed in this material are those of the author and do not necessarily reflect the views
106 of the National Science Foundation.
107

108 References

- 109 [1] [n. d.]. Academic Job Posting Service. <https://www.hochschulverband.de/en/services/academic-job-posting-service>
110 [2] 2008–2025. GROBID. <https://github.com/kermitt2/grobid>. swh:1:dir:dab86b296e3c3216e2241968f0d63b68e8209d3c
111 [3] 2025. *mullvad-vpn*: Release ? <https://mullvad.net/en>
112 [4] Max Bachmann. 2025. *rapidfuzz/RapidFuzz*: Release 3.13.0. doi:10.5281/zenodo.15133267
113 [5] Lisa DeBruine and Daniel Lakens. 2026. *metacheck*: Check Research Outputs for Best Practices. <https://github.com/scienceverse/metacheck> R package version 0.0.9065.
114 [6] Jason Priem, Heather Piwowar, and Richard Orr. 2022. OpenAlex: A fully-open index of scholarly works, authors,
115 venues, institutions, and concepts. doi:10.48550/arXiv.2205.01833 arXiv:2205.01833 [cs].
116 [7] R Core Team. 2025. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing,
117 Vienna, Austria. <https://www.R-project.org/>
118 [8] Jeremias Rieser. 2025. Open Science Mentions. <https://github.com/jkr11/open-science-mentions>.
119 [9] Jian Wu, Rajal Nivargi, Sree Sai Teja Lanka, Arjun Manoj Menon, Sai Ajay Modukuri, Nishanth Nakshatri, Xin Wei,
120 Zhuoer Wang, James Caverlee, Sarah M. Rajtmajer, and C. Lee Giles. 2021. Predicting the Reproducibility of Social and
Behavioral Science Papers Using Supervised Learning Models. doi:10.48550/arXiv.2104.04580 arXiv:2104.04580 [cs].
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147