An analysis of retracted articles with African authors or co-authors: Possible implications for training and awareness raising.

Liapeng Matsau  
Human Sciences Research Council, South Africa

Theresa Rossouw  
University of Pretoria, South Africa

Christa Van Zyl  
Human Sciences Research Council, South Africa
Introduction

Expressions of concern
Retractions
Research integrity investigation findings
Methods (1)

Filters:

1) Name of African country
2) Retraction date (1 January 2014 to 31 December 2018)
3) Nature of notice: “retraction”

Total of 245 retractions
Methods (2)

For each individual author – up to maximum of 10 authors:

1) Number of retractions recorded in the Retraction Watch database

2) Biographical information on each author from other sources (notably LinkedIn, Research Gate and institutional websites)
   a. “Seniority” (professor = 1, below professor = 0, unknown = .)
   b. Gender (female = 1, male = 0, unknown = .)
Results: Top 5 “Offenders”

Top 5 Countries with retracted articles

- Egypt: 90
- South Africa: 37
- Nigeria: 29
- Tunisia: 27
- Algeria: 28
- Other: 34
Results: Research output & Retractions

Based on Schimago data of research outputs between 1996-2018
Reasons for Retractions

Reasons of retraction

- Plagiarism: 90
- Author misconduct: 80
- Error in data/conclusion: 70
- Fabrication/falsification: 60
- Duplication: 50
- Conflict of interest: 90
- Author unresponsive: 40
- Authorship issue: 30
- Copyright issue: 20
- Journal error: 10
- Objection by 3rd party: 20
- Under investigation: 10
Eight disciplines involved.

- Discipline:
  - Biomedical and Life Sciences (BLS): 99 cases
  - Business Science (BTS): 48% of retracted articles in the discipline
  - Environmental Sciences (ENV): 50% of retracted articles
  - Only 5 cases
Plagiarism

• Factors significantly associated with plagiarism:
  • Single author articles
  • Absence of a senior researcher
  • Absence of inter-country collaboration
Factors significantly associated with duplication:

• Seniority of the team

Possible reasons:

• Increased pressure to publish
• Lack of knowledge or adherence to responsible authorship policies and practices
Conclusion

- Plagiarism
- Duplication of articles
- Training of Junior & Senior researchers
- Mentorship
- Training of researchers
- Support from Journals
Recommendations

TO DO

IN RESEARCH CAREER

NOT TO DO
Recommendations

Plagiarism awareness
• All students
• Early career researchers
• Established researchers

Duplication
Interventions at multiple levels:
• Author level
• Journal level
• Broader scientific community
Thank you. Ke ea leboha.

謝謝
Co-authors

- Prof Theresa Rossouw - University of Pretoria
- Dr. Christa Van Zyl - Human Sciences Research Council

Acknowledgements

- Ms Jolize Liebenberg
- Ms Feziwe Mseleni - Human Sciences Research Council (NRF/DST)
Limitations

- Not possible to capture dual country affiliation-some information may have been lost when removing duplicate
- Limited author information
- Missing values
- Names spelled differently for the same author
- One individual can skew an entire picture for a country or a discipline (e.g. junior individual from Nigeria)
- Capturing multiple retractions-sometimes the retracted articles of an individual fell outside our period under review, but we did not consistently check for that.