

CORRELATIONS BETWEEN RAE SCORES AND BIBLIOMETRIC MEASURES

Michael Norris
Charles Oppenheim
Loughborough University
C.Oppenheim@lboro.ac.uk

Research Assessment in the UK

- Research Assessment Exercise (RAE)
- Assesses research performance of UK university departments
- Uses mainly peer review
- Getting a 'good' result influences government funding of universities

MANY STUDIES SHOW THE CORRELATION

- RAE scores versus citation counts
- In a wide range of subjects
- Not really surprising, since both citation counts and RAE scores are measuring very similar things
- In this talk, I want to focus on on-going research by myself and Michael Norris on correlations between h index and RAE scores

h-index - a new indicator

- Jorge Hirsch
- A broad, robust measure of a scholar's impact
- An h-index of 20 means an author has 20 items that have at least 20 citations each
- Many applications and variants; g-index

RESEARCH ON THE h INDEX

- Individual scholars' h-index score
- Use of h-index to rank research groups, journals, postdoctoral selection, etc.
- It has aroused a lot of interest; not surprising since it is easy to calculate and offers a simple evaluation of a scholar's impact

Research Questions

- 1. Is there a correlation between the peer ranking of individual scholars and their h-index?
- 2. Is there a correlation between the h-index and the recent RAE results at departmental level?

Method 1

- 101 LIS scholars from 16 countries identified by publication records and earlier research
- Expert review panel of LIS scholars and journal editors
- Questionnaire asking expert panel of peers to rank the LIS scholars
- h-index found for each LIS scholar and correlation between median peer ranking and h-index calculated

Interim Results (1)

- 42 expert panel members ranked 100 scholars – one not ranked
- Most scholars from USA and UK (71%)
- Male/female gender split 76/24

Interim Results (1)

- Individual h-indexes ranged between 2-30
- Individual positions in the overall h-index rankings affected by citation data
- Spearman rank order correlation 0.518, significant at 0.005 level between median rankings and h-index

Method 2

- Library and Information Management and Pharmacy
- Calculate the collective departmental h-indexes based on individuals who were returned for the 2008 RAE
- Find the correlation between the RAE grade point average and h-index

Interim Results (2) Library and Information Management

- 297 individual scholars from 21 UK departments
- Submission range 3-50 scholars
- Spearman rank order correlation 0.397, significant at 0.05 level between GPA and h-index

Interim Results (2) Pharmacy

- 250 individual scholars from 8 UK departments
- Submission range 18-44 scholars
- Spearman rank order correlation 0.738, significant at 0.025 level between GPA and h-index

Analysis (1)

- Strong correlation between peer ranking and h-index
- Overall individual rankings were little affected by self-citation rates – but including citations to non-journal items improved some individual rankings
- Some very heavy self-citers saw their rankings vary significantly

Analysis (2)

- Mixed results, poor correlation between Library and Information Management and h-index
- Good result for Pharmacy with a strong correlation with h-index.

Conclusion

- Some promising results from the peer ranking and h-index
- Mixed result from LIM and Pharmacy
- Scope for further research when all the RAE data is released