Workshop

Writing manuscripts for Official Statistics journals: Guidelines for practitioners and researchers: 8, 10 and 15 February 2022

SESSION 2: FEBRUARY 10, 2022

Working efficiently to structure and draft – Steve MacFeely (WHO)

Some initial steps… clarify what you are going to say – and why? – the ‘so what?’

(1) Pick a working title

(2) Map out story outline – chapter headings
   - introduction
   - literature review
   - methodology
   - results
   - discussion
   - conclusion
   - introduction
   - problem
   - literature review
   - proposed solution
   - relative pros and cons of your solution
   - conclusion

(3) Write short abstract
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Some additional planning

(1) Selecting a journal
   - Free / Pay
   - Open / closed access
   - Journal ranking / impact
   - Content
   - Turn around time

(2) Schedule

(3) One paper or several?
Writing alone or coauthoring?

(1) Selection of co-authors

(2) Allocate work, agree timelines, method (write simultaneously – cloud, word/latex…)

(3) Decide who is corresponding author

(3) Agree on style – will you use ‘we’ or keep it impersonal

(4) Final editor?
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Literature review (what – who – when)

(1) Provide context – history of progress or development

(2) Part narrative, part critique

(3) Balance ‘grey’ and ‘white’ literature

(4) Record as you go along (software tools available e.g. Zotero)
It was described by Hulme (2009, 4) as ‘the world’s biggest promise.’


Figures, Tables and Maps

(1) File and label figures/tables/maps properly – as you write – don’t wait until the end

(2) Adhere to best statistical standards

(3) Make sure you have permission to use them (if reproductions)

(4) Record source, URL (if reproductions)
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Examples

![Data Visualisation Diagram]

<table>
<thead>
<tr>
<th>Table 1: Big data sources and project topics registered by National and International Organisations on the UN big data project inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Source</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>Web scraping</td>
</tr>
<tr>
<td>Scanner</td>
</tr>
<tr>
<td>Mobile phone/CDR</td>
</tr>
<tr>
<td>Social media</td>
</tr>
<tr>
<td>Satellite Imagery</td>
</tr>
<tr>
<td>Smart meter</td>
</tr>
<tr>
<td>Credit card</td>
</tr>
<tr>
<td>Road sensor</td>
</tr>
<tr>
<td>Health records</td>
</tr>
<tr>
<td>Ship identification</td>
</tr>
<tr>
<td>Criminal Records</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Authors own calculations derived from UN Big Data Project Inventory https://unstats.un.org/bigdata/inventory/ [examined on 27 April, 2018]
Informal review

(1) Save time – ask colleagues / friends to review paper
(2) Check for consistency – data are plural / singular or UK / US English (e.g s v z)
(3) Clean up grammar / spelling
(4) Use informal review to try and anticipate formal review process
(5) Especially important if you are writing in a foreign language
Dealing with Reviewers Comments (and edits)

(1) Read carefully – don’t get defensive

(2) You should try and address all of the points raised by the reviewers

(3) Record changes carefully so that you can explain to editor

(4) Detail changes on the paper (and in a separate note to editor) so that changes are clear

(5) You can challenge a reviewer comment, but I wouldn’t make a habit of it
Submitting edits

the decisions and choices they make have an impact. The selection of variables in a composite index; whether to weight or not; or the treatment of outliers, all affect not only the basic result but perhaps also the alignment to a political or economic ideology. This realisation becomes especially important when thinking about what “evidence informed decision making” really means or the concerns expressed as “Governance by numbers” [40]. This is a growing worry for many as algorithms (or what Tufekci has called “semi-savant mini-Frankensteins” [41]) are playing an increasingly greater role in our lives, from deciding whether we get a loan to whether we are shortlisted for an interview [42,43].

Many other interesting debates are underway, not least, the “End of Theory” argument posited by Anderson [44] that with the emergence of big data, correlation has superseded causation. In other words, hypothesis driven science is redundant. Whether one agrees or not, specific requirements for training of official statisticians, both traditional and with an eye on the future. Nevertheless, as Zheng [47] points out, “for the ever-expanding skill set and application of Data Science, we can never be able to teach our students enough ‘living skills’ to handle each situation.” in a world that is always changing, the objectives and function of Official Statistics need constant realignment [48]. Of course, curriculum renewal is also a continuous process, but it is typically slow and trails developments in the field. So instead of trying to anticipate change, it is better to prepare students for future learning, that is to cultivate their capacity to learn new information, to use resources effectively and innovatively, and to invent new strategies for learning and problem solving in practice [49]. This should be an obvious requirement as statisticians, like any other professional, will need to continually update their practice over the lifetime of their career [15]. Nevertheless, this becomes critically important in a fast-changing discipline. In this section
Poacher turned gamekeeper – acting as a reviewer

(1) Am I qualified?
(2) Do I have time to meet deadlines?
(3) Read paper – does it ‘do what it says on the tin’?
(4) Any content missing?
(5) Is sequence logical?
(6) Is methodology appropriate?
(7) If a problem was identified – is a solution proposed?
(8) Is language / charts / tables / maps appropriate?
(9) Is discussion and inference reasonable?
(10) Conclusions sensible?