Demystifying the publishing process for statistics education journals

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Jennifer Kaplan, Laura Le, Susan Peters,
& Andrew Zieffler

USCOTS 2023 Breakout Session

Journal of Statistics and Data Science Education (JSDSE)

Laura Le

Jennifer Green

Matt Hayat

Statistics Education Research Journal (SERJ)

Jennifer Kaplan

Sue Peters

Technology Innovations in Statistics Education (TISE)

Andrew Zieffler

Rob Gould

Goal & Outline

Goal of Breakout Session

Demystify the publishing process by providing guidance on

- what to include in articles (for authors) and
- how to review articles in statistics and data science education journals (for reviewers).

Group discussion

Publishing pipeline

Reviewer guidelines + Practice

Questions

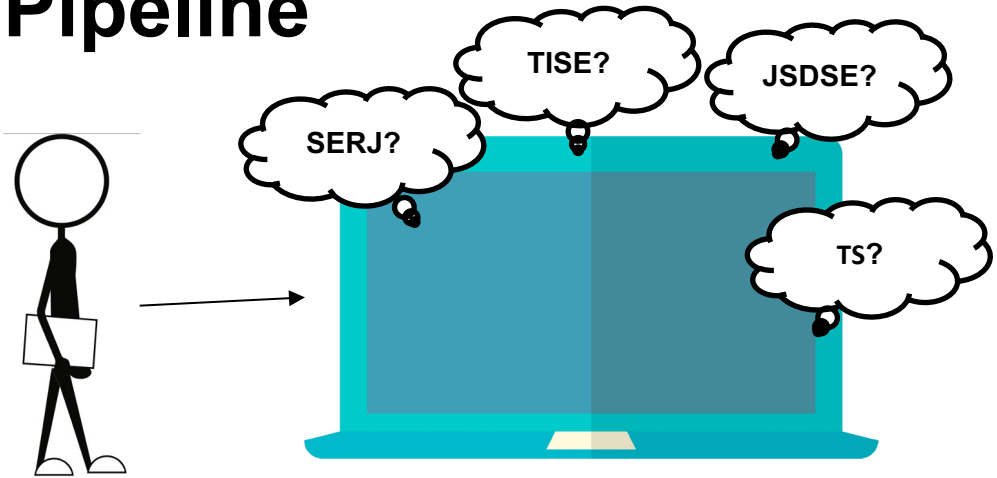
Discussion

What are questions you have as a reviewer or as an author?

Discuss the question in small groups

Large group discussion

Pipeline



Submit

Editor

To AE &/or
Reviewers

Fix

Letter +
Manuscript

Editor

Published!

Implications for **Practice**?

Journal of Statistics and Data Science Education

Implications for **Research**?

STATISTICS EDUCATION RESEARCH JOURNAL

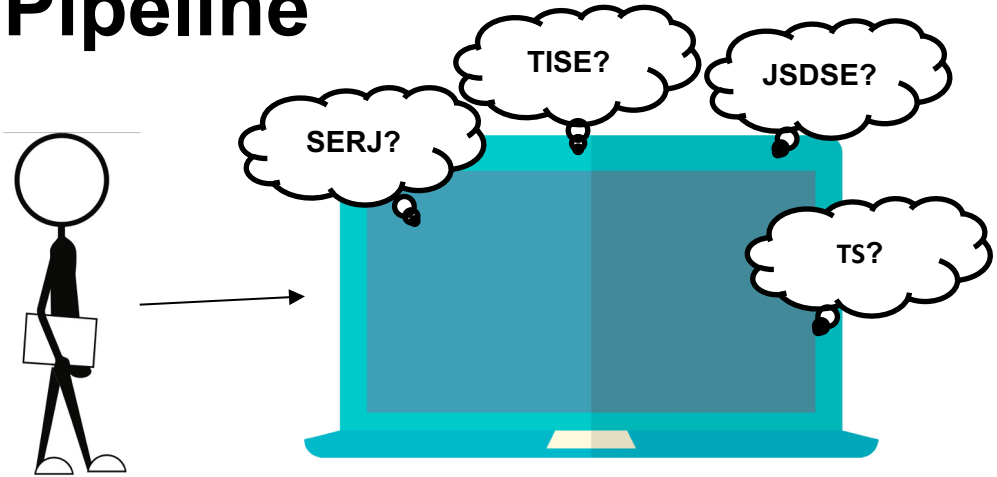
Technology-related Use and Teaching?

TISE
Technology Innovations in Statistics Education
UCLA Department of Statistics | tise.stat.ucla.edu

Direct **Classroom-based Application**? (e.g., activities, lesson plans)

TEACHING STATISTICS
An International Journal for Statistics and Data Science Teaching

Pipeline



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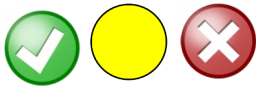
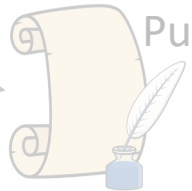




Published!

General Recommendations and Decisions

Reject

Unsuitable: Does not align with aims and scope of the journal

Unsound: Study flaws that cannot be fixed with revisions

"Revise and Resubmit"

The paper has potential but **needs substantial revisions** to continue being considered for publication.

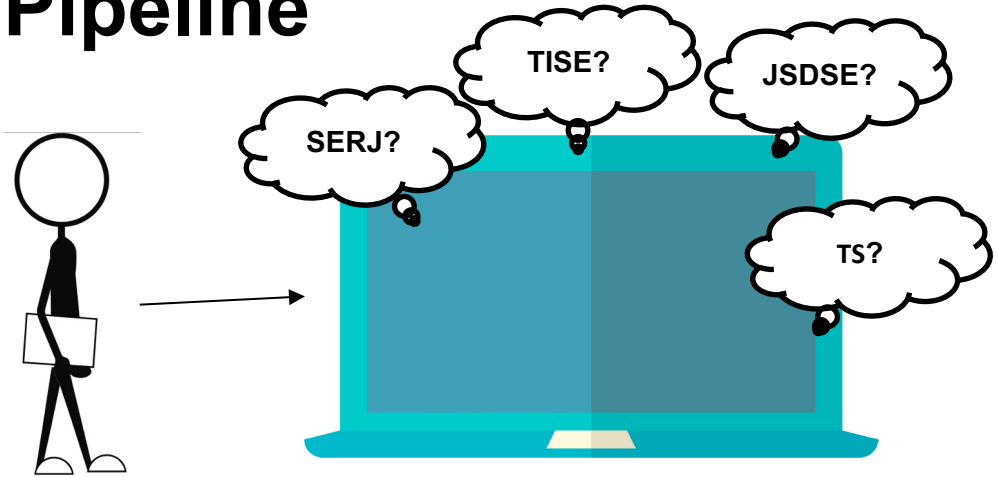
"Accept with Minor Revisions"

The paper **needs minor revisions** and will be considered for publication after revisions are satisfactorily made.

Accept

The paper is **ready** to move on to publication!

Pipeline



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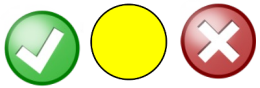

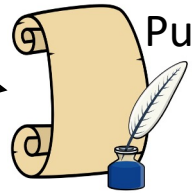

Published!

Reviewer Guidelines: General

1. Is the manuscript a **meaningful contribution** to statistics education? (the “so what?”)

2. Is the **aim / purpose** of the manuscript **clear**?

3. Does the **literature review** address relevant previous studies? Are there glaring omissions?

4. Are the **design, methods, and analysis sound and appropriate** for achieving the aim / purpose of the manuscript?

5. Are **relevant results or arguments clearly presented** with sufficient evidence and/or rationale? Could the presentation be improved with the addition or removal of figures / tables? Are figures / tables clearly labeled?

6. Are **conclusions sound and appro**priate for addressing the manuscript’s aim / purpose?

7. Are there **clear implications** for research and/ or practice?

8. Are the **limitations** satisfactorily acknowledged?

9. **Writing Style**: Is the paper clear and concise? Are there sections that are not needed? Are there sections/paragraphs/ sentences that need revising?

Reviewer Guidelines: Article Type

Research-oriented

Is the (theoretical) framework adequate?

Is there an alignment between the (theoretical) framework posed and the research questions?

How is the work compatible or not compatible with other work?

Practice-oriented (rigorous empirical justification not required)

Does the paper propose a convincing argument for why the proposed approach is capable of solving or alleviating the stated problem?

Can you suggest ways of strengthening this argument?

If empirical evidence is provided, is it compelling and appropriate (e.g., is there enough information to decide whether this is an approach that readers would like to adopt)?

Other (e.g., commentary, position papers, notes, lesson plans, datasets and stories)

While these papers probably don't need a formal literature review, they should still be situated in the data science/statistics education landscape.

If appropriate, are opposing points of view considered and treated with the respect they deserve?

Reviewer Tips and Guiding Principles

Try to be a guide, not a gatekeeper.

- Focus on **big picture** in early reviews.
- Focus on a few big things and **provide constructive and informative/educative feedback** on how it can be improved.
- Give indications about whether a **revision is major or minor** and offer some direction for dealing with major revisions.
- Be **respectful**.

Example Reviewer Feedback

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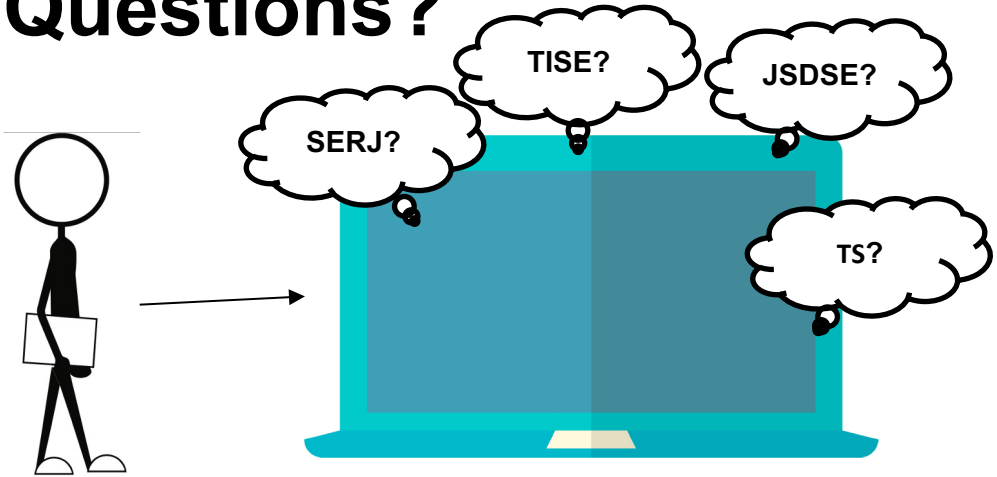
Review My Review! Activity

Purpose: To discuss and revise reviews using an educative mindset.

Instructions:

- You will be given a number 1–5.
- *Task #1*: Discuss the review you were assigned to.
- *Task #2:*
  - Choose another review to discuss, or
  - Talk about own experience.

Questions?



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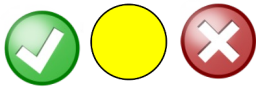
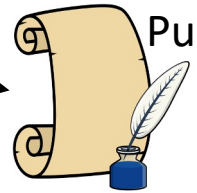




Published!

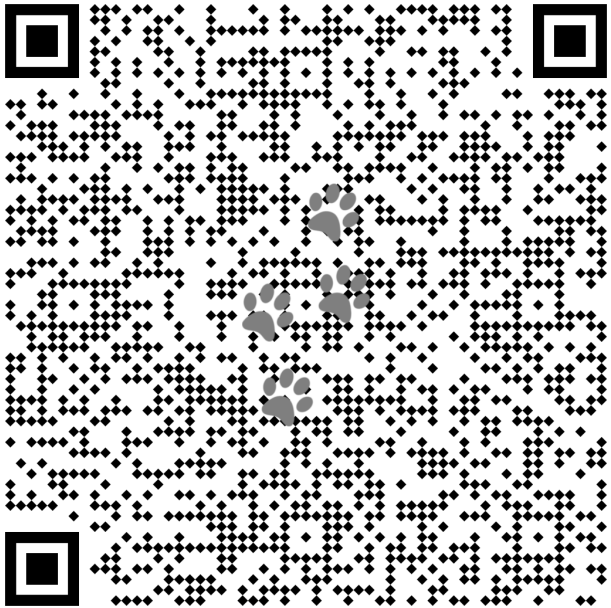
Discussion: Envisioning the Future (if time)

Finding reviewers since COVID has been more difficult. What are things that would make it more likely for you to say “yes” when being asked to review a manuscript?

What is your expectation for timeline for feedback when you submit a manuscript? How does that match your timeline expectations for actually reviewing an article? Are there ways that we could shorten this feedback loop?

Is this model of good-heartedness of academics sustainable (from we rely on volunteers forever)? What are alternatives?

Sign-up to be a Reviewer!



https://tinyurl.com/SDSE-Reviewer-SignUp

References

1. Watling, C., Ginsburg, S., & Lingard, L. (2021). Don’t be reviewer 2! Reflections on writing effective peer review comments. *Perspectives on Medical Education*, *10*(5), 299-303.

2. Guajardo, A.M.L. (2015, November 10). How not to be reviewer #2. Ashley ML Guajardo Blog. https://amlbrown.com/2015/11/10/how-not-to-be-reviewer-2/.

3. https://shitmyreviewerssay.tumblr.com/

Journal Websites

[Journal of Statistics and Data Science Education](https://www.tandfonline.com/journals/ujse21)
(https://www.tandfonline.com/journals/ujse21)

[Statistics Education Research Journal](https://iase-web.org/ojs/SERJ)
(https://iase-web.org/ojs/SERJ)

[Technology Innovations in Statistics Education](https://escholarship.org/uc/uclastat_cts_tise) (https://escholarship.org/uc/uclastat_cts_tise)