Publishing Educational Research in the Area of STEM

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Goals

Know a few basics about the publishing process in education
Know the structure of an educational research article
Ready to share your work!

Select a journal that aligns with the work you want to share

Discipline-Based Journals

Research Journals

General Journals

Practitioner Journals
Let’s look at a few different journals

Who are these journals trying to reach?
What do you notice about the writing? Components?
What are one or two differences between the journals?

<table>
<thead>
<tr>
<th>Research</th>
<th>Research -DBER</th>
<th>Practitioner</th>
<th>Practitioner DBER</th>
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</table>
Look at the guidelines in the journal

- Focus of the journal
- Suggestions for the structure of articles
- Length of the articles
- Submission guidelines
  - Style manual – APA, Chicago
  - Blind submission
- Review process
- Publication costs
Getting the article ready: How should I structure a research article?

<table>
<thead>
<tr>
<th>Introduction</th>
<th>With a partner, sort the following cells into the different parts of a research article</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory/Conceptual Framework</td>
<td></td>
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<tr>
<td>Literature Review</td>
<td></td>
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<tr>
<td>Methodology</td>
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<tr>
<td>Findings</td>
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<tr>
<td>Discussion/Conclusion</td>
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<tr>
<td>Implications</td>
<td></td>
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</tbody>
</table>
Introduction

Short

Provides a general overview to the problem (STEM-focused)
Provides the research question(s)
May suggest the importance of the findings
Theoretical Framework

Orients the reader to the assumptions about the data
Offers a way to look at phenomena, with the researcher adding understanding
Describes the lens for understanding your data

- **Positivist**
  - Motivation
  - Theory of reasoned action

- **Interpretivism**
  - Constructivist learning
  - Transformative learning theory
  - Teacher development

- **Critical Theory**
Conceptual framework

Contains factors, variables, and suggests relationships between the variables

It may be a well-reasoned model

This may come from a review of research (but it is not a review of research)

May be constructed by the author
Literature review

Comprehensive

Critical of the studies cited

Points to the need for your research

May have multiple sections
Methodology

Quantitative, Qualitative, Mixed Methods
Overview of study (e.g., intervention)
Results of the pilot study
Participants & Setting
Methods of data collection (e.g., instruments)
Methods of data analysis
Reliability, validity, triangulation
Limitations
Findings

Analyses
- Quotes
- Statistics
- Graphs

Point out certain trends

DO not discuss the data, just present the findings
Discussion

Answer your questions and connect to the literature review, theory/conceptual framework

Indicate how your findings enhance our knowledge in STEM fields

Suggest what might be studied next
Implications

Specific suggestions you have based upon your data

Do not overstep your data
How do these connect to one another?
Submit & Wait

Follow the guidelines
Write a short letter to the editor
  ◦ Potential reviewers
  ◦ Importance of the article
Submit the article
  ◦ Sometimes it comes back
When you finally get a response

Accepted (with or without revisions)

Reject but resubmit

Reject
Accept or Revise and Resubmit

Pay attention to the return date

Pay attention to the letter from the editors
  ◦ You don’t have to revise everything!

Responding to the editors
  ◦ Describe the changes or reasons for not making the change

Accept – make sure the document is in final form
Major reasons that articles are rejected

Wrong journal for the study
Lack of coherence
No contribution to the field
Not about STEM
Methodological issues (limited data, bad design)
Inadequate literature review or theoretical framing
Great resources for publishing