

Research and Publication in the Radiologic Sciences

Laura Aaron, Ph.D., R.T.(R)(M)(QM)
Tracy L. Herrmann, Ph.D., R.T.(R)
Marl P. King, Ed.D., R.T.(R), FAEIRS
Nina Kowalczyk, Ph.D., R.T.(R)(CT)



Objectives

- Describe the peer review process
- Discuss various types of scholarly manuscripts
- Develop a plan for writing a manuscript for publication
- Identify strategies for editing a manuscript

Why write for publication?

- Contribute to the body of knowledge
- Intrinsic rewards
- Job requirements/responsibilities

What is peer review?

- Assessment of the author's work
- Editorial Review Board (ERB)
- Editors
- Blind review

Manuscript Submission

- Electronically submitted to Dr. Terri Fauber, ERB chair (tfauber@vcu.edu)
- Signed copyright stipulations

Manuscript Review

- Manuscript blinded
- Assigned to reviewers
- Reviews submitted to ERB chair

Possible Outcomes

- Accepted
- Rejected
- Revisions requested

Revision

- Proofreading
- Responding to ERB comments
- Asking for clarification

Manuscript Types

- | | |
|---------------------|------------------------|
| ▪ Research report | ▪ Letter to the editor |
| ▪ Literature review | ▪ Invited commentary |
| ▪ Case report | ▪ Newsletter articles |
| ▪ Technical note | |

Research Report

- Original research
- Title page
- Introduction
- Literature review
- Hypothesis
- Methodology
- Findings
- Discussion

Literature Review

- Review and interpretation of well defined topic
- Purpose
- Methodology
- Content summary
- Conclusions
- Recommendations

Case Report

- Description of the management of education related problem
- Background
- Case description
- Outcomes
- Discussion

Technical Note

Description of new instrument, procedure, or technology relevant to the practice of imaging and radiologic science that is useful for educators in the field.

Letter to the Editor

Letter related to professional issues or articles published in the Journal.

Invited Commentary

An expert's point of view concerning an article published in the journal.

Newsletter Articles

- Variety of topics
- Not peer reviewed

Components of the Manuscript

- | | |
|---------------------|--------------------|
| ▪ Title page | ▪ Discussion |
| ▪ Abstract | ▪ Acknowledgements |
| ▪ Introduction | ▪ References |
| ▪ Literature review | ▪ Tables |
| ▪ Methods | ▪ Illustrations |
| ▪ Findings | |

Title Page

- Author names and credentials
- Department and institutional affiliation
- Address, phone, fax, email address
- Corresponding author identified

Abstract

- Less than 100 words
- Concise summary of manuscript
- Written last

Introduction

- Defines problem or need
- Provides background
- States purpose
- Relevance to practice
- Research questions or hypotheses

Literature Review

- Identifies relevant published research on the topic
- Should demonstrate synthesis and critical assessment of the literature
- Provides background for the topic

Methods

- Research design
- Procedures, instruments and/or equipment used
- Statistical analyses
- Steps of how research was conducted

Findings

- Response rates, profile of sample
- Summary of results
- Presents details of what was found in the study

Discussion

- Answers research questions with reference to results
- Provides findings in context of other published literature
- Limitations and implications for practice & future research

Acknowledgements

- Brief description of grants or other financial support

References

- APA format
- Double spaced
- Hanging indent
- Avoid abbreviating journal names

Tables

- Self-explanatory and supplement text
- Numbered and APA format
- Separate page or file

Illustrations

- Legends double spaced
- Numbered and APA format
- Separate file or page
- Appropriate permission if necessary

Formatting the Manuscript

- APA
- Common word processing format
- Double-spaced
- 1" margins
- Numbered pages

New Author Perspectives

- Writing suggestions
- Editing suggestions
- Writing and research resources