Getting Started in Medical Education Scholarship

Brian Mavis, PhD
Office of Medical Education Research and Development, Michigan State University College of Medicine
I am an author or developer for some of the resources included in this presentation
Drawing on the current body of knowledge → Contributing to the current body of knowledge
Any material, product or resource originally developed to fulfill a specific educational purpose that has been successfully peer-reviewed and is subsequently made public through appropriate dissemination for use by others.
Four categories of educational scholarship:

1. Scholarship of discovery (research)

2. Scholarship of integration (connects across disciplines and contextualizes)

3. Scholarship of application (engagement; connection between research and practice)

4. Scholarship of teaching (teaching and learning)
1. Clear goals
2. Adequate preparation
3. Appropriate methodology
4. Significant results
5. Effective dissemination
6. Reflective critique
Medical education scholarship: an introductory guide

- Attributes of effective mentor-mentee relationships and how early career scholars can identify potential mentors who can fulfill this role.
- Appropriate development of scholarly questions
- Components to consider when planning for your scholarship
- Methods that align with both the teaching and discovery traditions and examples of each
- Sharing scholarship and assessing it’s impact
- Documenting scholarship for promotion
- Research ethics and educational scholarship

Crites et al., 2014
The research compass: An introduction to research in medical education

- Intended for new investigators

- How real world problems become researchable questions:
  - Researchable questions
  - Choosing an approach
  - Opportunities and challenges

Ringsted et al., 2011
How to Succeed as a Medical Education Scholar: Identifying Your Individual Strategy and Creating a Roadmap for Scholarship

Educational Objectives

- To compare one’s habits and strategies for bringing scholarship to the “finish line” with those of successful scholars.

- To identify one’s “limiting habits” thwarting scholarship and strategies to circumvent them.

- To develop a personalized plan for a scholarly submission to be presented at a future meeting.
<table>
<thead>
<tr>
<th>GLASSICK's CRITERIA</th>
<th>BROAD INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear goals</td>
<td>Learning objectives for the teaching session are:</td>
</tr>
<tr>
<td></td>
<td>• Stated clearly</td>
</tr>
<tr>
<td></td>
<td>• Specified to measure learner's performance</td>
</tr>
<tr>
<td></td>
<td>• At appropriate level of targeted learners</td>
</tr>
<tr>
<td>Adequate preparation</td>
<td>• Congruence and integration with other components of curriculum</td>
</tr>
<tr>
<td></td>
<td>• Use of best practices from literature and from participation in professional development activities</td>
</tr>
<tr>
<td></td>
<td>• Resource planning</td>
</tr>
<tr>
<td>Appropriate methods</td>
<td>• Teaching methods aligned with learning objectives</td>
</tr>
<tr>
<td></td>
<td>• Methods are feasible, practical, ethical</td>
</tr>
<tr>
<td></td>
<td>• Innovative teaching methods used to achieve objectives</td>
</tr>
<tr>
<td>Significant results</td>
<td>• Satisfaction/reaction: Learners</td>
</tr>
<tr>
<td></td>
<td>• Learning: Measures knowledge, skills, attitudes, and/or behaviors</td>
</tr>
<tr>
<td></td>
<td>• Application: Desired performance demonstrated in other settings</td>
</tr>
<tr>
<td></td>
<td>• Impact: On educational programs and processes within and/or outside institution</td>
</tr>
<tr>
<td>Effective presentation</td>
<td>Recognized as valuable by others (internally or externally) through:</td>
</tr>
<tr>
<td></td>
<td>• Peer review</td>
</tr>
<tr>
<td></td>
<td>• Dissemination (Presentations/publications) and/or</td>
</tr>
<tr>
<td></td>
<td>• Use by others</td>
</tr>
<tr>
<td>Reflective critique</td>
<td>• Reflection and results of evaluations used for ongoing improvement</td>
</tr>
</tbody>
</table>

Gusic et al., 2013
Evaluating Educational Programs: A Planning Tool

Six Step Approach:
1. State Program Goal(s)
2. State Program Objectives
3. Write Program Description
4. List Program Evaluation Questions
5. List Sources of Evaluation Data
6. Describe Data Collection Method
Writing for academia: Getting your research into print (Coverdale et al, 2013)

Twelve tips for getting your manuscript published (Cook, 2015)

Responding to reviewers' comments as part of writing for publication (Happell, 2011)
Review Criteria for Research Manuscripts

- Problem Statement, Conceptual Framework, and Research Question
- Reference to the Literature and Documentation
- Relevance
- Research Design
- Instrumentation, Data Collection, and Quality Control
- Population and Sample
- Data Analysis and Statistics
- Reporting of Statistical Analyses
- Presentation of Results
- Discussion and Conclusion: Interpretation
- Title, Authors, and Abstract
Toward better descriptions of innovations

(Kanter, 2008)

- What do readers want to know about an innovation?
  - The importance of being reflective, analytical and scholarly
  - Provides criteria for writing a paper about an innovation
A suggested outline for writing curriculum development journal articles: the IDCRD format

Five Part Format:
1. Introduction
2. Development
3. Curriculum
4. Results
5. Discussion

Examples of educational innovations
Annotated Bibliography of Journals for Educational Scholarship

- Information about over 50 journals that contain medical education content

- Educational resource repositories

https://www.aaml.org/members/gea/gea_sections/mesre/
- MedEdPortal

- MedEdWorld

- Multimedia Educational Resource for Learning and Online Teaching (MERLOT)
• Time
• Pack, herd, flock... but not alone
• Planning
• Make it count twice
• Scholarship is story-telling
• Know your IRB
• Patience = success
References


- Cook D. Twelve tips for getting your manuscript published. Medical Teacher. 2015 (Sept 15); Epub ahead of print. PMID: 26372399


References


whose career focus is in education, faculty and their mentors can also use them as a means for

Using the AME Tool for Evaluating Educators: You Be the Judge

Educator's Toolkit: Applying Classic Criteria of Scholarship to Your Own Work


2. Successful and dissimilar educational scholarship. Jeffrey, S. et al. This planning tool and workshop provides a structure for working through the steps needed to

3. Teaching a Reading for Scholarhip

Placing Your Medical Education Scholarship

American Medical Colleges (AMC) Educational Workshop on Educational Scholarship. 2013: 100. doi: 10.1234/09123456789.0123456789.0123456789.0123456789

Scholarship: A Guide for Medical Educators. 2011; 39(9):695-709

and considering the individual researcher's preferences and the contextual possibilities

researchable questions, choosing a researchable question that is appropriate to the purpose of the

The purpose is to develop educational research and is intended for those who are new to

The research compass: an introduction to research in medical education (AMEE Guide No. 99)

Getting Started: What is medical education scholarship and is my work scholarship?

Midwestern State University -- College of Human Medicine

Brian Mays, Ph.D., Professor and Director

Resource List

Getting Started in Medical Education Scholarship:
The author proposes that what is most valuable to readers who seek creative solutions to
Toward better descriptions of innovations

writing about curriculum or educational innovations

Happell B. Nurse on dealing with, and responding to, the comments of peer-reviewers. Happell B. Nurse
This paper provides a resource for authors to help them get their work published. The focus is
Responding to reviewers' comments as part of writing for publication

Twelve tips for getting your manuscript published

35525.926.3: db1.10.2010/0142159X/2012.742494
journal and respond to editors and reviewers. Be clear and precise. Avoid using jargon.
In the Medical Teacher. 2013.
This can frustrate reviewers and make it difficult to understand your work. The key to success is
Writing for academic: Getting your Research and Publication (AMEE Guide No. 74)

Writing a paper for publication

Teacher, 2006 May, 28(3):210-24. PMID: 16753188
and dissemination of findings; and influencing decision making are covered. (Gidle, J Medical
and summarizing the findings; and influencing decision making are covered. (Gidle, J Medical
Evaluating educational programs (AMEE Guide No. 79)

10.1097/ACM.0b013e3283590333
Evaluating educational programs is described in these different approaches: "decision-oriented,"
"performance-oriented," and "expert-oriented." These perspectives are compared across the six
do:Publ No 49 Available from: http://www.medportal.org/publication/749
A snapshot of Three Common Program Evaluation Approaches for Medical Education

Planning to evaluate an educational program

Publication 2013: Publ No. 9313. Def. 10.15766/mped.2374.8265.9313
Guidance and reflection about educational scholarship. Gidle ME, et al. Medical
Evaluating educational programs: a planning tool

made more flexible: Boyer explored educational scholarship and defined four categories of research. According to Boyer, traditional models of scholarship needed to be broadened and expanded. Boyer introduced an academic model expanding the traditional definition of scholarship and increased the advancement of teaching.


This searchable repository of peer-reviewed educational resources is maintained by the Association of American Medical Colleges.

Repositories for Medical Education Resources

http://www.ama-assn.org/education/eduresources/medschdportal

and Education (MEDPORTAL), A repository of medical education resources. Association of American Medical Colleges. Go to: http://www.medschoolportal.org

This repository provides information about 20 journals that publish scholarship in medical education and research.

Annotated bibliography of journals for medical education scholarship

What are Reviewers looking for?

2008 (8): 703-70A. Doi: 10.1097/ACPM.0b013e31818b3ae

2008 (8): 703-70A. Doi: 10.1097/ACPM.0b013e31818b3ae

A suggested outline for writing curriculum development articles: The IDCRD format provides criteria for writing a paper discussing innovation in medical education, and scholarly descriptions. This paper is a guide to writing a successful paper on innovation in medical education, and scholarly descriptions. The author identifies potential areas for future research and policy development and the role of medical education in shaping the future of medicine.
broader to the five pivotal roles of medical educators: results, effective presentation, and reflective critique. Glassick's criteria have been applied more extensively to improving clear goals, adequate preparation, appropriate methods, significant scholarship of teaching, and the fluency of teaching. The standards for assessing scholarship and the fluency of teaching are that the scholar provides six criteria for judging the quality of the work of others. Glassick C.E. (2002), "Beyond Scholarship and Scholarship of Teaching"—the traditional view of scholarship—and educational scholarship: scholarship of integration, scholarship of application, and scholarship of teaching.