Identifying and Starting Your Project

Presented by
COM Faculty Development & the Harriet F. Ginsburg Health Sciences Library

Session Objectives
1. *Evaluate a journal's scope, impact and contribution categories*
2. *Select a journal for your project*
3. *Identify additional materials for your project to be successful*

Overview of Medical Education Scholarship

Glassick's Criterion*	Application to Discovery	Application to Teaching
Clear goals	Clarity of hypotheses; importance of questions	Clear, achievable, measurable objectives
Adequate preparation	Appropriate knowledge; ability to assemble necessary resources	Up-to-date knowledge; identification and organization of an appropriate quantity and level of material specific to objectives
Appropriate methods	Proposed study design will answer question; appropriate statistical analysis for design	(1) Selection of appropriate teaching methods(s) to meet defined objectives (2) Selection of appropriate assessment measures to evaluate outcomes
Significant results	Hypothesis tested and proved or disproved	(1) Measures of quality/effectiveness of presentation (2) Demonstration of learners' accomplishment of objectives
Effective presentation	Publication or presentation in public domain	Making results/process available to colleagues
Reflective critique	Critical reflection on results to guide the direction of relevant additional research	Critical analysis of teaching activity that results in changes to improve

Application of Glassick et al.'s Six Criteria to Evaluate Scholarship in Discovery (Traditional Research) and Teaching

* From Glassick CE, Huber MR, Maeroff GI. Scholarship Assessed—Evaluation of the Professoriate. San Francisco, CA: Jossey–Bass, 1997.

Fincher, R.-M. E., Simpson, D. E., Mennin, S. P., Rosenfeld, G. C., Rothman, A., McGrew, M. C., . . . Turnbull, J. M. (2000). Scholarship in Teaching: An Imperative for the 21st Century. Academic Medicine, 75(9), 887-894.

Criteria for Scholarship, and the Associated Questions That Must be Answered about Each of Four Common Roles of Educators to Provide Evidence of Scholarship

| Criterion*	Questions about a Lecturer	Questions about a Preceptor in the Clinical Setting	Questions about a Tutor/Small-group Leader/Facilitator	Questions about an Education Administrator
Clear goals To what extent does the individual . . .	■ articulate clear, realistic, achievable goals/objectives that relate to the course/clerkship expectations and level of the learners? ■ appropriately sequence goals and objectives, and state them in the context of basic knowledge and/or important/current questions in the field?	■ develop clear goals and objectives that are realistic and achievable in the setting (e.g., inpatient ward, outpatient clinic), and consistent with course expectations and level of learners? ■ modify them in response to "teachable moments" and changes in the clinical setting?	■ help the group define intellectual problems that reflect current knowledge in a field of study in terms of objectives that specify measurable outcomes? ■ structure the desired outcomes for the session in a way that is realistic and achievable?	■ provide clear, realistic and achievable visions, missions, goals, or objectives consistent with the administrative activity (e.g., course director, committee chair, residency, program director, associate or assistant dean)? ■ develop and articulate desired directions based on knowledge of current trends in the field?
Adequate preparation To what extent does the individual . . .	■ use accurate, current resources to develop the content of lectures? ■ select, synthesize, and interpret material matched to the level of the learners? ■ demonstrate command of basic concepts and current thinking?	■ use and recommend up-to-date, varied learning resources? ■ use course goals and objectives and current trends in patient care to prepare and focus teaching encounters?	■ combine thoughtful planning about the group and individual learning needs with the defined learning objectives? ■ seek and acquire current knowledge of subject matter and teaching methods?	■ apply current relevant concepts in the field to local organization? ■ assemble the necessary resources (people, financial) strategically to develop and implement a plan?
Appropriate methods To what extent does the individual . . .	■ use methods that reveal the logic, organization, and relevance of the material? ■ match the quantity of material to audience level and allotted time? ■ use images, metaphors, analogies, and examples that connect the subject matter to the students' experience and knowledge? ■ demonstrate responsiveness to learners' reactions during the presentation?	■ allow sufficient time for interaction with the learner? ■ ask questions to promote learning? listen critically and respond informatively? ■ provide specific timely feedback and recommendations for improvement? ■ establish and maintain a climate conducive to learning? ■ modify his or her approach to the learner over time?	■ skillfully apply teaching methods to the situation? ■ adapt methods as the circumstances change? ■ question, respond, motivate, and reflectively critique through role modeling and feedback?	■ recognize obstacles or challenges and address them effectively? ■ use methods that are consistent with accomplishment of the desired outcomes?
Significant results To what extent . . .	■ do learners' narrative comments and ratings indicate that the lecturer achieved the goals and objectives of the presentation? ■ does learners' performance on comprehensive, cumulative examinations, demonstrate achievement of objectives? ■ does the lecturer model teaching techniques that are adopted/adapted by other faculty members?	■ do learners' cognitive, procedural, and presentation skills become more focused and improved over time? ■ do learners' questions improve in quality over time? ■ do learners demonstrate ability to analyze clinical problems better and work more independently over time?	■ are educational outcomes achieved? ■ is there evidence that written assessment has constructive impact on learners?	■ were the desired changes and results achieved? ■ were the outcomes assessed to determine effectiveness of the intervention?
Effective presentation To what extent does the individual . . .	■ communicate to learners evidence of systematic application of one's intellect? ■ demonstrate enthusiasm and interest in the topic? ■ deliver the message with clarity and organization? ■ provide handout material matched to the goals and objectives of the presentation? ■ capitalize on the spontaneous occurrence of "teachable moments" during the presentation? ■ present difficult topics in ways that help students learn?	■ provide clear explanations and stimulate learners based on learner and peer evaluation? ■ provide evidence of valuing teaching by sharing methods and experiences with colleagues? ■ mentor newer or less experienced teachers? ■ have his or her peers recognize and adopt/adapt the clinician's teaching methods?	■ help the group establish clear standards and expectations for the group and the individuals? ■ facilitate discussion of content, provide and facilitate feedback and assessment (written and oral)? ■ discuss outcomes of sessions and related strategies with other facilitators? ■ influence other facilitators' skills in group process, facilitation, feedback, and assessment (e.g., sharing innovative techniques with colleagues through formal or informal discussions, presentations, publications, or faculty development seminars)?	■ ensure that the results are shared with others? ■ illustrate/document project process and content? ■ enhance stakeholders' (students, colleagues, etc.) understanding and valuing the project results? ■ ensure that educational strategies are adapted/adopted locally or nationally for use in other courses, departments, or schools?
Reflective critique To what extent does the individual . . .	■ enhance his or her teaching skills through reading, discussion with colleagues, or participation in workshops? ■ seek and respond to feedback regarding his or her teaching?	■ talk with colleagues about critical teaching incidents? ■ translate insights from reflective critique to teaching practices?	■ respond constructively to student and peer feedback to improve and advance his or her skills as a teacher and facilitator? ■ acquire new or advanced educational skills relevant and applicable to group facilitation?	■ respond to stakeholders' critiques? ■ engage in continuing professional development to hone relevant administrative skills? ■ actively seek feedback from students and peers inside and outside the institution as appropriate regarding the project/course? ■ reflect about what went well and what could be improved for future projects? ■ use results to develop and implement strategies for ongoing assessment (continuous quality improvement)?

Getting Started: Planning for your Research

Cook, D. A., Bordage, G. and Schmidt, H. G. (2008), Description, justification and clarification: a framework for classifying the purposes of research in medical education. Medical Education, 42: 128–133. doi:10.1111/j.1365-2923.2007.02974.x

Step 1: Identify the Question you are Answering and the Type of Study
The state of literature in Medical Education
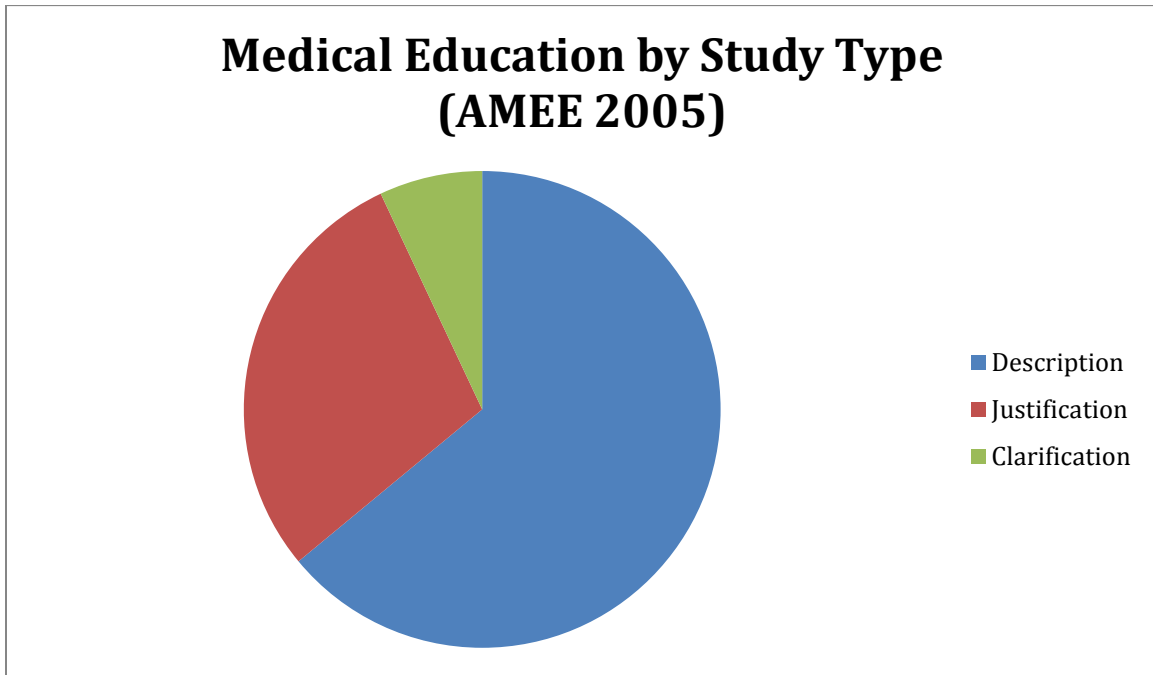
Brainstorm

Considering your educational role and the types of study (described on the back) list potential research studies you would like to pursue publication with:

Select three journals for publication that would fit one of your identified research studies. (Rank them in order that you want to pursue publication)
https://www.aamc.org/download/456646/data/annotated-bibliography-of-journals-march-2016.pdf

Study Type	Definition	Examples	Materials Needed
Description	Studies focus on the first step in the scientific method, namely, observation. '*What was done?*'	Examples would be a report of a novel educational intervention, a proposal for a new assessment method, or a description of a new administrative process. Such reports may or may not contain outcome data, but by definition they make no comparison.	Course/module material Outcome data (*optional*)
Justification	Studies focus on the last step in the scientific method by comparing one educational intervention with another to address the question (often implied): '*Does the new intervention work?*'	Typical studies might compare a problem-based learning (PBL) curriculum with a traditional curriculum, compare a new web-based learning course with a lecture on the same topic, or compare a course to improve phlebotomy skills with no intervention. Rigorous study designs such as randomized trials can be used in such studies but, without prior model formulation and prediction, the results may have limited application to future research or practice.	Two educational intervention groups Outcome data to compare groups Randomized control trials (RCT – *optional*)
Clarification	Studies employ each step in the scientific method, starting with observations (typically building on prior research) and models or theories, making predictions, and testing these predictions. Confirmation of predictions supports the proposed model, whereas results contrary to predictions can be just as enlightening – if not more – by suggesting ways in which the theory or model can be modified and improved. Such studies seek to answer the questions: '*How does it work?*' and '*Why does it work?*'	Such research is often performed using classic experiments, but correlational research, comparisons among naturally occurring groups and qualitative research can also be used. The hallmark of clarification research is the presence of a conceptual framework or theory that can be affirmed or refuted by the results of the study. <u>Such studies will do far more to advance our understanding of medical education than either description or justification studies alone. Indeed, description and justification studies, by focusing on existing interventions, look to the past, whereas clarification studies illuminate the path to future developments.</u>	Conceptual framework or theory

Step 2: Gather Necessary Components

IRB Protocol: In order to submit an IRB protocol you must have an iRIS account and up-to-date CITI training.
http://www.research.ucf.edu/Compliance/IRB/Submissions/index.html

Components of an IRB protocol relevant to educational research:
1. Protocol Title
2. Objectives
3. Background (Literature Review)
4. Setting of human research
5. Resources available to conduct human research
6. Study design (methodology)
7. Risks to participants
8. Potential direct benefits to participants
9. Provisions to protect the privacy interests of participants
10. Provisions to maintain the confidentiality of data
11. Cost to participants
12. Consent process
13. Process to document consent in writing
14. Multi-site human research
15. Sharing of results with participants

Questions? Contact irb@ucf.edu

Design survey(s) for outcome data:
Just in Time Faculty Development: Andrea Berry is available to review surveys
Online resource: http://njaes.rutgers.edu/evaluation/resources/survey-instrument.asp

Identify conceptual theory or framework:
For practical examples of how to utilize conceptual frameworks in research:
http://www.ncbi.nlm.nih.gov/pubmed/19335572
Bordage, G. (2009), Conceptual frameworks to illuminate and magnify. Medical Education, 43: 312–319. doi:10.1111/j.1365-2923.2009.03295.x

Step 3: Determine the Outcome of your Educational Research
Grants
Publication
Textbook publications
Presentations
Web-based material (i.e. repository, blog, etc.)
Curriculum units/teaching modules adoption