

**Conducting, Analyzing, Presenting and Publishing Medical Education Research:
A Curated Toolkit by the ATS Scholar Editorial Board**

Applying for a grant:

- How to write an educational research grant: AMEE Guide No. 101: [Blanco \(2016\)](#)
- Show Me the Money: Successfully Obtaining Grant Funding in Medical Education. [Gottlieb \(2019\)](#)
- Twelve tips for writing educational research grant proposals. [Blanco \(2012\)](#)

Research methodology: General scholarship

- The [EQUATOR network website](#): Reporting guidelines for various types of studies, including those for Systematic Reviews (PRISMA), Qualitative Research (SRQR), Quality Improvement (SQUIRE), and a checklist for reporting the use of OSCEs
- A writer's guide to education scholarship: Quantitative methodologies for medical education research (part 1): [Thoma \(2017\)](#)
- A writer's guide to education scholarship: Quantitative methodologies for medical education research (part 2): [Chan \(2017\)](#) Using consensus group methods such as Delphi and Nominal Group in medical education research: [Humphrey-Murto \(2016\)](#)
- Autoethnography: introducing 'I' into medical education research: [Farrell \(2015\)](#)

Research methodology: Survey studies

- How to Create a Bad Survey Instrument: [Sullivan \(2014\)](#)
- You Can't Fix by Analysis What You've Spoiled by Design: Developing Survey Instruments and Collecting Validity Evidence: [Rickards \(2011\)](#)

Research methodology: Qualitative studies

- Conducting Quantitative Medical Education Research: From Design to Dissemination: [Abramson 2017\)](#)
- Peer interviewing in medical education research: experiences and perceptions of student interviewers and interviewees: [Byrne \(2015\)](#)
- Social network analysis in medical education: [Isba \(2016\)](#)
- Knowledge Syntheses in Medical Education: Demystifying Scoping Reviews: [Aliki \(2017\)](#)

- Using qualitative interviews within medical education research: why we must raise the “quality bar”: [Reeves \(2006\)](#)
- Qualitative research in medical education: methodologies and methods: [Ng \(2014\)](#)

Research methodology: Quality and process improvement studies

- Standards for Quality Improvement Reporting Excellence in Education): Publication Guidelines for Educational Improvement (SQUIRE-EDU): [Ogrinc \(2019\)](#)
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Assessment instruments:

- Assessment in Medical Education: [Epstein \(2007\)](#)
- What Do Our Respondents Think We're Asking? Using Cognitive Interviewing to Improve Medical Education Surveys: [Willis \(2013\)](#)
- Developing questionnaires for educational research: AMEE Guide No. 87: [Artino \(2014\)](#)
- A Primer on the Validity of Assessment Instruments: [Sullivan \(2011\)](#)
- How to Create a Bad Survey Instrument: [Sullivan \(2014\)](#)
- You Can't Fix by Analysis What You've Spoiled by Design: Developing Survey Instruments and Collecting Validity Evidence: [Rickards \(2011\)](#)

Ethics and legalities in medical education research:

- The Research on Medical Education Outcomes (ROME) Registry: Addressing Ethical and Practical Challenges of Using “Bigger,” Longitudinal Educational Data: [Gillespie \(2016\)](#)
- A framework for the ethics review of education research. [Eikelboom \(2012\)](#)
- The Ethics of Conducting Graduate Medical Education Research on Residents. [Keune \(2013\)](#)
- Education Research and Human Subject Protection: Crossing the IRB Quagmire: [Sullivan \(2011\)](#)
- Academic Conflict of Interest: [Annane \(2019\)](#)

Data analysis:

- Data analysis in medical education research: a multilevel perspective: [Leppink \(2015\)](#)
- Using Effect Size—or Why the P Value Is Not Enough: [Sullivan \(2012\)](#)

Presenting data and writing:

- Write and represent qualitative data: Muddiman (2016)
- Presenting Data From Health Professions Education Research in Tables and Figures: Campi (2016)
- Writing Education Studies for Publication: Sullivan (2012)
- What to Do When Your Paper Is Rejected: Sullivan (2015)

Authorship:

- Committee on Publication Ethics (COPE) Authorship Discussion Document
- Defining the Role of Authors and Contributors: International Committee of Medical Journal Editors (ICMJE)

Promoting your research:

- #MedEd: exploring the relationship between altmetrics and traditional measures of dissemination in health professions education: Maggio (2018)
- Making an infographic in 6 steps: Kaul (2021)