

Research – Workshop

How to develop a good research question?

MedEd-Symposium 2024

Dr. med. Eva Hennel, PhD, MME

Sharon Mitchell, PhD cand., MSc

Workshop Agenda

- Components of a good research question
- **Activity 1: good or bad question?**
- Overview of study designs
- **Activity 2: Which study design should the example use?**
- Practical Application
- **Activity 3: Improve one example or work on your own question**

Writing your research questions

Reflection:

Why is getting it right important?



Considerations for a good research question

Addresses a knowledge gap

Context sensitive

Qualitative versus Quantitative

Feasibility and scope

Use of frameworks to craft a research question

Components of a good research question

- The topic/phenomenon of interest
- The population or setting
- Purpose or aim
- Design
- Evaluate

Activity 1:
good or bad question?

Is it good or is it bad?

Q7. Do cardiology residents feel that Entrustable Professional Activities (EPAs) are acceptable and appropriate to their training?

Components of a good research question

- The topic/phenomenon of interest
- The population or setting
- Purpose or aim
- Design
- Evaluate

Quantitative study designs

Data are mainly numbers








Qualitative study designs

Data can be texts and other material



Mixed method designs

Qualitative Study Designs

	Grounded Theory	Phenomenology	Ethnography	Case Study	Narrative
					
Goal/purpose	<ul style="list-style-type: none"> Develop a theoretical model for how a process or action works 	<ul style="list-style-type: none"> Understand the nature of a phenomenon, incident, or circumstance through those who experienced it 	<ul style="list-style-type: none"> Describe and interpret a group's culture/process by examining its behaviors 	<ul style="list-style-type: none"> Develop an in-depth understanding of one or a small number of cases 	<ul style="list-style-type: none"> Explore, in depth, one or more individuals' longitudinal experience(s)
Potential research question	<ul style="list-style-type: none"> How do students learn on family-centered rounds? How does role modeling impact their learning? 	<ul style="list-style-type: none"> How do team members define teaching on family-centered rounds? Does it include role modeling? 	<ul style="list-style-type: none"> Do senior residents incorporate "role model" as one of their roles? Do they consciously model patient care for junior learners? 	<ul style="list-style-type: none"> How does teaching occur during family-centered rounds on a ward with high evaluation scores? 	<ul style="list-style-type: none"> How has one clinical teacher's experience with teaching on rounds evolved with changes in ward structure and over her career?

Activity 2:

**Which study design should
the example use?**

Frameworks to develop your research question/study

Quantitative studies designs

PICO – Quantitative, clinical trials, effectiveness of interventions

Qualitative studies designs

SPIDER – Qualitative, experiences, perceptions

PCC – Qualitative, experiences, perceptions

PEO – Qualitative, experiences, perceptions

SPICE – Qualitative, experiences, perceptions

PICO (typically quantitative)

- **P**opulation,
- Phenomena of **I**nterest,
- **C**omparison
- **O**utcome

SPIDER (typically qualitative)

- **S**ample
- **P**henomena of Interest
- **I**ntervention,
- **D**esign
- **E**valuation,
- **R**esearch type

Applying SPIDER to your research question: Activity

Q3. Using qualitative interviews, what are the barriers and facilitators perceived by hospital resident trainees in the implementation of EPAs in routine practice?

S: Hospital resident trainees
P: Perceived barriers and facilitators
I: Implementation of EPAs
D: Interviews or focus groups
E: Evaluate the key factors influencing implementation
R: using qualitative research design

Activity 3:
Improve one example or work
on your own question

Activity 3:

Using the SPIDER or another appropriate framework, can you work with one colleague to help each other to improve a research question?

You can use either your own example or the one given here:

Q7. Do cardiology residents feel that Entrustable Professional Activities (EPAs) are acceptable and appropriate to their training?

**Please leave your contact data if you
are interested in networking.**

You can also contact us via:

Sharon.Mitchell@siwf.ch

Eva.Hennel@siwf.ch