



The University of Jordan

School of Medicine

Family and Community Medicine Department

Course Code: 0505308

Course Title: Scientific Medical Research

Semester: Second Semester 2025/2026

Due Date: First week of May 2026

General Instructions

- ◆ Students are expected to work within independent research teams during this course.
- ◆ Each group will be assigned to an advisor who is a faculty member at the University of Jordan.
- ◆ Each group will write a research report. The report should consist of a minimum of 10 double-spaced pages, excluding abstract, references, and appendices.
- ◆ Use Times New Roman font, 12pt.
- ◆ Students should use APA style in their papers to format details of the information sources they have cited in their work.
- ◆ Each advisor/ faculty will schedule a weekly virtual meeting with her/his students according to their availability.
- ◆ During each virtual meeting, general issues related to the research process will be discussed and clarified.
- ◆ Students will follow the instruction of their advisor within their groups and might meet independently and/or with their advisor according to their specific needs.
- ◆ The research report should be submitted as a soft copy. When submitting the report, please name it according to your group number.
- ◆ Your advisor may ask for a physical copy of the research report.
- ◆ You are preparing the research report with all team members, who share responsibility for their end result and organization of group work. All team members are expected to provide an equal share of work. For any team malfunction, you should contact your advisor in due time.

- ◆ Each group member's contributions should be clearly indicated on the front page of the research report.
- ◆ Groups' leaders should complete and submit a peer evaluation form along with the final report. Completing this form, group leaders can reflect on and evaluate contributions made by colleagues in their groups.
- ◆ No late submissions will be accepted beyond the deadline.
- ◆ The assignment counts for 10% of the final course grade. Assignments will be assessed on the quality of the written material. The grade for this assignment is a group grade, which means that each member of the group gets the group grade.

ASSESSMENT DETAILS

Focus of projects: The students' evaluation for the practical part of this course is built around an applied research project. Projects will require students to conduct interviews with other students, friends, or colleagues.

1. As a group, students will develop a research question (s) to explore through their qualitative data collection.
2. Students should identify the specific interview questions to be included in the guide they will use for the interviews.
3. Students will be required to conduct, record, and fully transcribe the interviews for analysis.
4. Students will be required to submit the records and full transcript of their interviews.
5. The collected data should be analyzed using a thematic analysis process.

Research Topic

Medical students' perceptions of their learning environment: A Qualitative Study

Structure of the Research Report

The paper consists of the five sections of the report, includes abstract, references and appendices, and has the following elements:

1. Title

Briefly states what the research report is about.

2. Abstract 5%

An effective abstract for qualitative research typically includes the following components:

1. **Background/Introduction:** Briefly introduce the research topic and its significance. Provide context for your study, highlighting the gap in existing literature that your research addresses.
2. **Objectives:** Clearly state the research objectives or questions. What did you aim to discover or understand through your study?
3. **Methods:** Describe the qualitative research methods used in your study. This may include the research design, data collection techniques (e.g., interviews, focus groups), and analysis methods.
4. **Results:** Summarize the key findings of your research. Report the themes or patterns that emerged from your data analysis.
5. **Conclusion:** Highlight the implications of your findings and their relevance to the field. What contributions does your research make? What recommendations can be drawn from your study?

3. Introduction 10%

1. Background and what was written about the topic international, regional, and national.
2. Rationale for your research problem: what problem does it address/solve, what research agenda does it advance, and who would be interested in the knowledge generated by your study?
3. Study purpose: Clear and Reflect the study problem.
4. Significance of the study: Why should this study be done?

5. Research questions: The research question(s) should be clearly related to an explicit statement about the aims and purposes of the proposed study.

4. Literature Review 15%

1. Description of past research efforts: past research projects and publications that led to the current application;
2. Complete
3. Recent
4. Criticize

5. Methods 25%

1. The methods section should clearly state and justify why the particular method, for example, face-to-face semi-structured interviews, was chosen.
2. The method should be outlined and illustrated with examples such as the interview questions.
3. The criteria for selecting the study participants should be explained and justified.
4. The way in which the participants were recruited and by whom also must be stated.
5. A brief explanation/description should be included of those who were invited to participate but chose not to. It is important to consider “fair dealing,” ie, whether the research design explicitly incorporates a wide range of different perspectives so that the viewpoint of 1 group is never presented as if it represents the sole truth about any situation.
6. The study sample, sampling technique and the research setting should be described. Sampling differs between qualitative and quantitative studies. Participants being chosen based for example, on year of study, gender, etc.
7. A description of how the data were analysed also should be included. Arrival at “data saturation” or the end of data collection should then be described and justified. A good rule when considering how much information to include is that readers should have been given enough information to be able to carry out similar research themselves.
8. The method of recording, eg, audio or video recording, should be noted, along with procedures used for transcribing the data
9. The process by which ethical and or research/institutional governance approval was obtained should be described and cited. Ethical considerations including the method

for gaining informed consent from the participants should be described, as well as how confidentiality of subjects were guaranteed.

10. Strategies used to ensure rigour of qualitative research should be stated. For example, if the analysis was repeated by more than 1 researcher to ensure reliability or trustworthiness, this should be stated and methods of resolving any disagreements clearly described. Some researchers ask participants to check the data (member checking or participant validation). If this was done, it should be fully discussed in the paper. A description of how the themes and concepts were derived from the data also should be included.
11. Reflexivity: Reflexivity is about acknowledging your role in the research. As a qualitative researcher, you are part of the research process, and your prior experiences, assumptions and beliefs will influence the research process.

The author also should reflect on their own influence on the data, including a consideration of how the researcher(s) may have introduced bias to the results. The researcher should critically examine their own influence on the design and development of the research, as well as on data collection and interpretation of the data.

For example, in case an experienced teacher who researched teaching methods, they should discuss how this might have influenced their interpretation of the results.

A researcher may speak about how her past experiences as a medical doctor and studies in public health influenced her research and interest in pursuing her research topic.

6. Results 20%

1. Ensure that the results are linked with the research question(s)/aims and objectives.
2. The interpretation should usually be grounded in interviewees or respondents' contributions and may be semi-quantified, if this is possible or appropriate, for example, "Half of the respondents said ..." "The majority said ..." "Three said..." .
3. Qualitative data conventionally are presented by using illustrative quotes. Quotes are "raw data" and should be compiled and analyzed, not just listed. There should be an explanation of how the quotes were chosen and how they are labelled. For example, have pseudonyms been given to each respondent or are the respondents identified using codes, and if so, how? It is important for the reader to be able to see that a range of participants have contributed to the data and that not all the quotes are drawn from 1 or 2 individuals. There is a tendency for authors to overuse quotes and for papers to

be dominated by a series of long quotes with little analysis or discussion. This should be avoided.

7. Discussion and conclusion 20%

1. The findings should be presented in the context of any similar previous research and or theories. A discussion of the existing literature and how this present research contributes to the area should be included.
2. A consideration must also be made about how transferrable the research would be to other settings.
3. Any particular strengths and limitations of the research also should be discussed.
4. The conclusion should summarize the main findings from the study and emphasize what the study adds to knowledge in the area being studied. The conclusions of the paper should comment on the implications and applications of the findings.

8. References and appendices 5%

1. List references cited in the text in APA format.
2. Copies of the interview guide, interview transcripts, consent form, instructions to be provided to subjects are included (participant information sheet), should be provided in the appendices.

Resources

Anderson, C. (2010). Presenting and evaluating qualitative research. *American journal of pharmaceutical education*, 74(8), 141.

Barroga, E., & Matanguihan, G. J. (2022). A practical guide to writing quantitative and qualitative research questions and hypotheses in scholarly articles. *Journal of Korean medical science*, 37(16).

Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & quantity*, 56(3), 1391-1412.

Majumdar, A. (2022). Thematic analysis in qualitative research. In *Research anthology on innovative research methodologies and utilization across multiple disciplines* (pp. 604-622). IGI Global.

Pfeifer, M. A., & Dolan, E. L. (2023). Venturing into qualitative research: A practical guide to getting started. *Scholarship and Practice of Undergraduate Research*, 7(1), 10-20.

Villamin, P., Lopez, V., Thapa, D. K., & Cleary, M. (2024). A Worked Example of Qualitative Descriptive Design: A Step-by-Step Guide for Novice and Early Career Researchers. *Journal of Advanced Nursing*.

<https://insight7.io/how-to-write-an-abstract-for-qualitative-research-reports/>

<https://medicine.unimelb.edu.au/school-structure/medical-education/research/qualitative-journey/themes/reflexivity#:~:text=Reflexivity%20is%20about%20acknowledging%20your,will%20influence%20the%20research%20process>

Tips for doing qualitative research

Getting Started with Qualitative Research

Observe, Search, and Read

For a topic to be worthy of qualitative research (or any research), it should also have the potential to address a knowledge gap. After we identify a “worthy topic,” we try to find as much information about that topic as possible (Dolan 2013). We read, then we keep reading, and then we read some more. This may seem obvious, but we find that investing time reading literature can save us a lot of time designing, conducting, and writing up a study on a phenomenon that is already well known or understood by others and just not (yet) by us.

Formulate a Question

Once you have selected a topic and identified a knowledge gap, consider research questions that, if answered, would address the knowledge gap. Recall that qualitative research is suited to questions that require a descriptive (what) or mechanistic (how) answer.

Examples of qualitative research questions:

1. What factors affect the mental health of medical students during the COVID-19 pandemic?
2. How do primary care nurses describe providing quality care to residents of low-income urban neighborhoods?

Decide on a Study Design

Just like quantitative research, qualitative research has characteristic approaches, designs, and methodologies, each of which has affordances and constraints (Creswell and Poth 2016; Merriam 2014; Miles, Huberman, and Saldana 2014). Given the labor intensiveness of qualitative data collection and analysis, it is critical to think carefully about how to recruit and select study participants. What this looks like and who might be appropriate study participants will depend on many factors, including the knowledge gap, research question, study design, and methods. Questions that can be helpful to ask are: Who do I need to study to answer my research question? What should the study participants have in common? In

what ways should study participants vary to provide rich, complex, and varied insight into what I am studying? To whom do I want to generalize my findings, keeping in mind the qualitative nature of the work?

Based on the answers to these questions, you may opt for purposeful sampling in which you collect data only from participants who meet the characteristics you decide upon given the aims of your study.

Collect and Analyze Data Systematically

Qualitative data can be collected in a variety of ways, including focus groups, interviews, as well as audio and video recordings of learning experiences such as class sessions. To decide which method(s) to use for data collection, it is helpful to consider what you aim to learn from study participants. Focus groups can be effective for quickly gathering input from a group of participants. However, social dynamics may result in one or a few people dominating the discussion, or “group think,” when people agree with one another rather than providing their own unique perspectives. Interviews with individuals can be a rich and varied data source because each participant has time and space to offer their own distinct perspective. Interviews also allow for follow-up questions that are difficult through survey methods. Yet, conducting interviews skillfully—avoiding leading questions and ensuring that the line of questioning yields the desired data—takes a lot of thought and practice. Kvale (1996) offers detailed guidance on how to design and carry out research interviews.

Observing an expert interviewer and having them observe and give feedback as you interview can help improve your skills. Audio and video recordings of learning experiences like class sessions or group work can provide a plethora of information (e.g., verbal and nonverbal exchanges among students or between students and instructors) in a more natural setting than surveys or interviews. Yet deciding what information will serve as data to answer your research question, or how that large body of data will be systematically analyzed, can be cumbersome.

Regardless of the data collection method, you’ll need to decide how much data to collect. There is no one right sample size. A good rule of thumb is collecting data until you reach “saturation,” which is the notion that the same ideas are coming up repeatedly and that no new ideas are emerging during data collection. This means that your data collection and analysis are likely to overlap in time, with some data collection then some analysis and then more data collection.

Analytic methods in qualitative research vary widely in their interpretive complexity. Thematic analysis (TA), the often-used methods of qualitative research, provides concise description and interpretation in terms of themes and patterns from a data set. Braun and Clarke's approach is one of the most thoroughly delineated methods of conducting thematic analysis (TA). Braun and Clarke's approach involves six steps:

1. Familiarising yourself with the data
2. Coding
3. Generating initial themes
4. Reviewing themes
5. Defining and naming themes
6. Writing up

Despite the numerous ways to organize findings in qualitative research, presenting the data in themes or categories seems to be the most frequent way of doing so (Kim, Sefcik, and Bradway 2017). Because qualitative data are quotations rather than numbers, qualitative papers tend to be longer than papers presenting quantitative studies. That said, qualitative papers should still aim to be succinct. For instance, depending on the approach and methods, quotations can be lightly edited to remove extra words or filler language (e.g., um, uh) that is a natural part of language but otherwise irrelevant to the findings. Presenting only the most pertinent part of a quotation not only facilitates succinctness, but helps readers attend to the specific evidence that supports the claims being made.