

Can Tho University of Medicine and Pharmacy

RESEARCH PROJECT PREPARATION IN
MEDICAL EDUCATION

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Course Information

Course title:

Research Project Preparation in Education

Course load:

8 Hours

Program:

Professional Development for Lecturers

Dates:

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Objectives

- Understanding the basic structure of academic research in education, particularly for lecturers in higher education
- Justifying and applying popular research methods in particular research projects in education
- Understand key areas and concepts in educational research
- Developing specific research projects.

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Outline

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General Structure

2

Qualitative Approach

3

Quantitative Approach

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Research Gaps

5

Research Concepts

6

Consultations

4

1

General Structure

5

1. General Structure - Abstract

1.1

Importance of abstracts

1.2

Key elements of an abstract

1.3

Basic types of abstracts

1.4

Drafting abstracts

1.5

Developing abstracts

1.6

Revising abstracts

6

1.1. Importance of abstracts

1

The first section to be read in a research document

2

The only proof for the quality of a paper submitted to a conf.

3

The first impression of the research quality

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1.1. Importance of abstracts

When should researchers start to write the abstract for their research?

before conducting the research

during the research

after completing the research

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1.2. Key elements of an abstract

Talk to a colleague next to you the key details that should be included in an abstract of a research study in education?

research methodology

finding

research question

objective

data analysis

rationale

implication

literature review

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1.3. Basic types of abstract

3 types

descriptive

Less than 100 words
Including objective, method, and scope
Excluding result, conclusion, recommendation

informative

Between 150 words to a page
Including objective, method, result, conclusion, recommendation

critical

A couple of pages
Extended summaries with comments

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1.4. Drafting abstracts

Look at the key elements in the table and draft an abstract.

Key elements	Details
Objective	Understanding the effects of workplace wellness programs on medical expenditure, productivity, and well-being
Method	Experimental design in more than two years
Participants	Nearly 5,000 employees
Findings	Increasing health screening rates, but not medical expenditures, productivity, or self-reported health status
Conclusion	Rejecting the effects of wellness programs in prior research

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1.5. Developing abstracts

Insert details of your research into the table below & write the abstract.

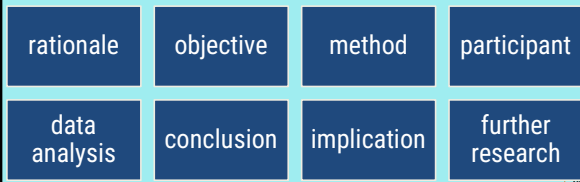
Key elements	Details
Objective	
Method	
Participants	
Findings	
Conclusion	

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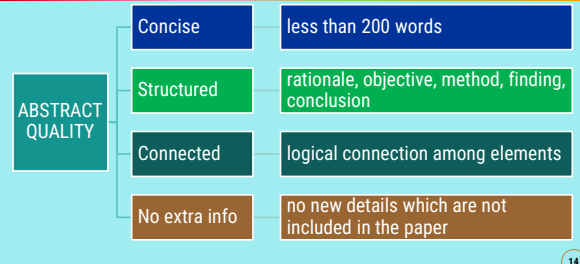
1.6. Revising an abstract

Use the comments & feedback from your colleagues to improve your abstract. What element is not included in your abstracts?



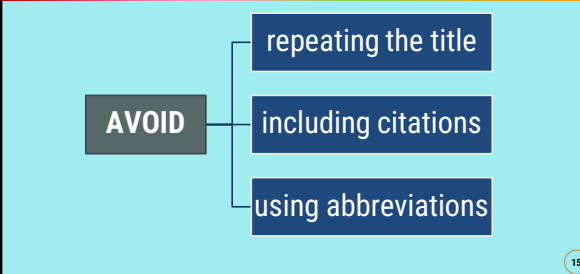
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General advice



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General advice

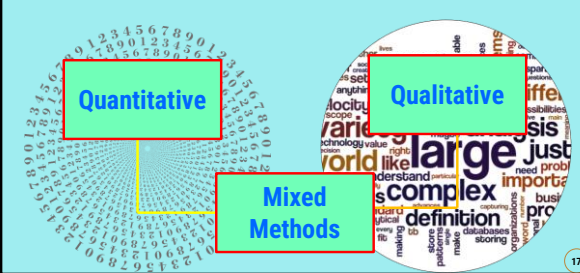


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Research Approach

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Research approaches



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Research approaches

Discussion

- Who constructs the knowledge?
- Can we measure all constructs/concepts in education such as motivation, attitude, intelligence, achievement, memory, and so on?

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2 Qualitative Approach

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2. Qualitative approach	
2.1	Foundations
2.2	Naturalistic research
2.3	Ethnographic research
2.4	Critical ethnography
2.5	Autoethnography
2.6	Virtual ethnography
2.7	Phenomenological res.
2.8	Reflexivity
2.9	Conducting
2.0	Challenges

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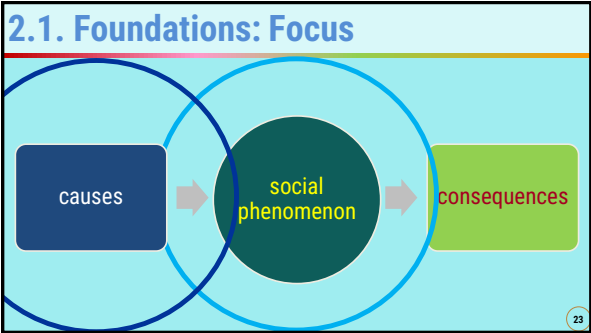
2. Qualitative approach

2.1 Foundations

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- No single picture of the world, but many worlds and many ways of investigating them
- Numerous kinds of research, presenting a wide range of meanings
- Connoting the use of words rather than numbers
- Focusing on attitudes towards understanding, experiences and interpretations by humans of the social world.

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- ### 2.1. Foundations
- Choose a research focus of applied linguistics or TESOL that you are interested in. Some areas for your reference include
- | | | | |
|------------------------|---------------------------------|------------------|---------------------|
| communication strategy | argument structure construction | learner autonomy | learning engagement |
| language acquisition | learning styles | motivation | identity |
| L2 transfer | apprehension | space and place | culture |

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2.1. Foundations: Paradigm

- Humans actively construct their own meanings of situations
- Meaning arises out of social situations and is handled through interpretive processes
- Behaviour and data are socially situated, context-related, context-dependent and context-rich

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2.1. Foundations: Paradigm

- Realities are multiple, constructed and holistic
- Knower and known are interactive, inseparable
- Only context-bound working hypotheses are possible
- The attribution of meaning is continuous and evolving over time

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2.1. Foundations: Paradigm

- Research must include rich descriptions
- People are deliberate, intentional and creative in their actions
- History and biography intersect
- Social research needs to examine situations through the eyes of the participants
- Researchers are the instruments of the research

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2.1. Foundations: Paradigm

- Researchers generate rather than test hypotheses
- Researchers do not know in advance what they will see
- Humans are anticipatory beings
- Human phenomena seem to require even more conditional stipulations than do other kinds

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2.1. Foundations: Paradigm

- Meanings and understandings replace proof
- The processes of research and behaviour are as important as the outcomes
- People, situations, events and objects have meaning conferred upon them rather than possessing their own intrinsic meaning

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2.1. Foundations: Paradigm

- Social research should be conducted in natural, uncontrived, real-world settings with as little intrusiveness as possible by the researcher
- Social reality, experiences and social phenomena are capable of multiple, sometimes contradictory interpretations
- All factors have to be taken into account.

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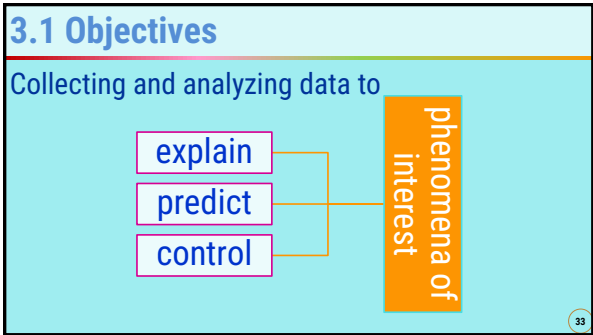
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3 Quantitative Approach

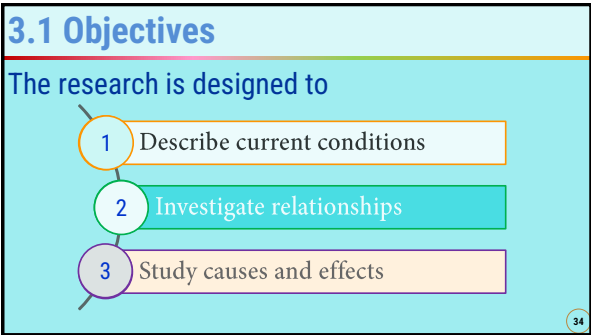
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- ## 3. Quantitative Approach
- 3.1 General objectives
 - 3.2 Assumptions
 - 3.3 Basic characteristics
 - 3.4 Variables
 - 3.5 Basic designs
 - 3.6 Sampling

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4 Research Gaps

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- ## 4. Research gaps
- 4.1 Knowledge gaps
 - 4.2 Conceptual/Theoretical gaps
 - 4.3 Methodological gaps
 - 4.4 Data/Population gaps
 - 4.5 Empirical/Practical gaps

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4.1 Knowledge gaps

- The phenomenon remains unexplained.
- There is inadequate knowledge to understand a phenomenon.
- The research findings are often different from what should be commonly expected.
- The professional practices of a technique deviate from previously conducted research findings.

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4.2 Conceptual/Theoretical gaps

- Different theories are used to explain the same construct.
- There are mismatches between the two conceptual frameworks to explain the same concept.
- The current knowledge is inadequate to support a theory.
- Differences between the evidence-based findings and their theoretical background.

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4.3 Methodological gaps

- The research methods employed in prior research to investigate a particular phenomenon is not adequate.
- It is necessary to refine the methods employed in prior research or develop a new one.
- The data collected from prior research is not reliable.
- The data is not accurately interpreted due to the analysis method.

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4.4 Data/Population gaps

- Conclusions made from the data generated from a few groups of population only.
- A population which is not adequately investigated in the prior research
- New measures to collect data on a particular construct need to be developed.
- The data collected in previous research is distorted.

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4.5 Empirical/Practical gaps

- Limited application of a teaching technique or limited employment of a learning strategy.
- Limited evidence-based effectiveness of a method.
- Limited understandings of the barriers when implementing a teaching or learning practice.
- Inconsistent findings generated from the same teaching or learning practice.

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4. Research gaps

Discussion

Look at the gaps presented in Handout 2 and identify the type of research gaps likely included. Are these gaps valid for further research?

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5 Research Concepts

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5. Research concepts

- 5.1 Popular concepts
- 5.2 Popular theories
- 5.3 Big names

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5.1 Popular concepts

1 Learning strategies	6 Learning engagement
2 Agency	7 Language exposure
3 Cooperative learning	8 Synchronous learning
4 Learning motivation	9 Automatic assessment
5 Peer feedback	0 Task interactions

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5.1 Popular concepts

Discussion

Look at abstract included in the Concept at the website and identify the key concepts. Write them down in the boxes below the abstract.

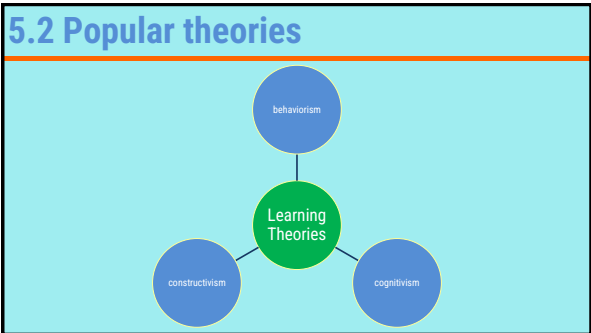
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5.1 Popular concepts

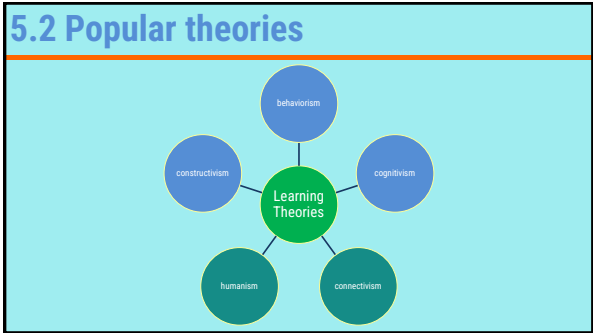
Discussion

Look at your proposal draft and identify the key concepts. Write them down in your research summary. If there is none, figure it out.

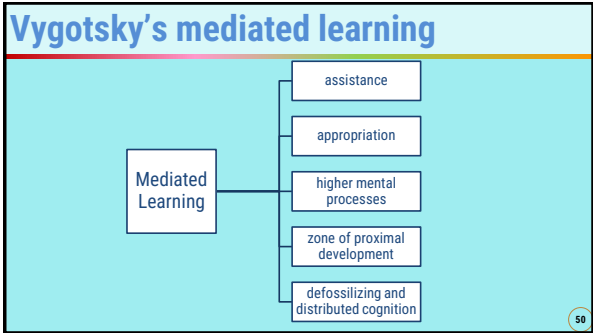
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5.3 Popular names

Jean Piaget	Lev Vygotsky	Benjamin Bloom
David Kolb	Robert Mills Gagné	Burrhus Frederic Skinner

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6 Consultations

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- ### 6. Project consultations
- What are the key concepts?
 - Do the research questions include any key concept?
 - Is there a valid reason (gap) for the research?
 - What is the research design?
 - Is the research a review, empirical study, or a tool production?
 - How do the research findings look like? Are they useful for a wider audience?

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