Research Seminar

• The research proposal

  Purpose:
  to document the need to conduct the study and provide a template to follow when conducting the study

  gets you to;
  - critically review past research
  - formulate research hypotheses
  - postulate outcomes for each hypothesis
  - develop sound methodology
  - develop a realistic budget
  - develop a time frame

Good research is more dependent on background and preliminary issues than the quality of your equipment and facilities.

• Important considerations before starting

  - Knowledge
  - Experience
  - Competencies
  - Budget
  - Professional Growth and Development
  - Future Employment “Dreams”
  - Pilot Testing
  - Expectations of Student and Supervisor
Expectations of Student and Supervisor

Student of Supervisor:

- Identifying and assisting with rules and procedures
- Assist in research design, pilot testing and data collection
- Meet on a regular and frequent basis
- Edit drafts of proposal and final thesis
- Help the student meet the academic, literary and research standards of the University
- Make arrangements for the examination of the student’s thesis
- Ensuring that the student makes satisfactory progress, and writing reports of this progress
- Assist the student in the selection of a target journal and the writing of the manuscript(s) for publication

Expectations of Student and Supervisor, cont’d.

Supervisor of Student:

- Become thoroughly familiar with the policies, rules, and procedures
- Define and state the research questions
- Make sure meetings with supervisor are scheduled, and have an agenda to discuss
- Prepare the budget, with assistance from the supervisor, identifying a) personal costs, and b) University costs
- Prepare the timetable for the entire project, with assistance from the supervisor
- Inform the supervisor of any factor which will affect the timetable, or quality of the research project
- Do not miss meetings, and stringently adhere to all methods
Selecting a Research Topic

- sustain your interest
- be within your range
- manageable in size
- have potential to make an original contribution
- be based on obtainable data
- permit you to demonstrate your independent mastery of research techniques and topical knowledge

- do-able - relative to expectations and competencies
- realistic - relative to expectations and competencies

The research question should define the research hypotheses, design, statistical analyses and title

Research Question(s)

Research Hypotheses

Research Design

Statistical Analyses  Title
The Research Proposal

Prepare the research proposal after;
- Finalising the research question(s)
- Conducting a limited literature review
- Selecting a suitable research design

Emphasis should be placed on;
- adequately defining the problem
- defining the research questions or hypotheses
- identifying the most appropriate research methodologies
- summarising the relevant literature for the research questions and needed methodologies
- consideration of issues of reliability and validity
- subject inclusion and exclusion criteria
- study limitations

Research Hypotheses, Purposes, Questions

Research Hypothesis vs. Null Hypothesis
States a difference and may provide a direction
States no difference

Despite the order of presentation in the text, the progression to formulating a hypothesis is very different!

- General Idea
- Background Reading and Knowledge
- Purpose Statement and Questions
- Hypotheses
- Statistics
Operational Definitions of Variables

Already many of you have experienced the frustration of stating problems/purpose statements, and even hypotheses, using words that do not adequately define independent or dependent variables.

**Conceptual Definition** = a grammatically clear, but quantitatively vague word or term used to represent a variable.

**Operational Definition** = that which clearly reveals/explains how the variable is to be quantified
Operational Definitions:
You should define each of the independent and dependent variables

2 types of definitions:
- Conceptual - explicitly correct, but not always measurable
- Operational - use of construct(s) to explain how other measures are used to quantify the variable

The Research Hypothesis:
Once the problem statement (research question) has been developed, and definitions are complete, the hypothesis can be stated.

Note: the wording of the problem statement has embedded within it features of the hypothesis and research design - all are/should be interconnected!!!