Research Presentation Template

This template can be used for 2 main types of research presentations.

Research Protocol Presentation
- Perhaps the most critical presentation of your research proposal is performed before sending the application to the IRB. The purpose of presenting the proposal at this time is to receive feedback while you still have the opportunity to modify the study design and make important revisions to your proposed study.
- Use template slides through a description of the proposed analysis (disregard slides 19-24 which pertain to results/conclusions)

Completed Research Presentation
- Presenting the completed research study including results and conclusions provides the opportunity to showcase your work and celebrate completion. You will also receive feedback about your presentation style and display before presenting at a national meeting and writing the manuscript.
Research Proposal Presentation Template

- The purple slides within this template are for information only and should be removed from your presentation.
- To insert additional slides use the “new slide” button from the toolbar this will keep the same slide background on the new slide.
Basic Outline for Research Proposal

• Title slide
• Introduction
• Background/Literature Review
• Research Question(s)
• Research Methods
  – Design
  – Sample
  – Procedures
  – Data Analysis
• Results
• Discussion
• Acknowledgements
• References
• Questions

This slide shows the outline for structuring this type of presentation – you can delete this slide from the final presentation.
General Presentation Guidelines

*The object is to interest and inform, not to entertain.*

- **Time**: Too hurried a pace will not allow your audience to digest your material. Too slow a pace will leave them bored. Most presentations have a fixed time limit so **PRACTICE YOUR TALK** to be sure to end within a minute of the set time. A general rule of thumb is one minute per content slide (10 minutes, 10 content slides)
- **Eyes**: Engage your audience with good eye contact. Make every person in the room feel like the most important member of the audience.
- **Voice**: Your voice should comfortably reach the person furthest removed from you. Try to project without shouting. Expressive intonation will help hold your audience’s attention.
- **Posture**: Remain comfortable and relaxed. Speak to your audience, not to your notes or slides. Keep your head up and your eyes in contact with your listeners. You may occasionally glance at your notes, but avoid reading.
- **Smile**: A smile conveys confidence and helps relax yourself and your audience. Before including comedy, however, try your material on an honest friend. If you are the only one to recognized the intended humor in your content, save it for yourself.
- **Language**: Effective speakers avoid nervous expressions. Novice speakers fear silence and try to bridge their ideas with “connectors.” Purge the following expressions from your vocabulary: “you know?”, “um”, “uh”, all right?”, “OK?”, “but…l…uh”
- **Dress**: Your clothing makes a statement. Consider the venue, the content of your presentation, and the impact your attire will have on the audience.
Title of Research Proposal

Author(s) Names
(Identify faculty mentor, if applicable)
Introduction

• In this section you want to inform your audience of all the relevant background information of your research project.

• Each bullet point should be a concise summary of what you will tell the audience verbally.

• Written text of your verbal presentation belongs on notes pages reserved for your personal use during the presentation.
What This Study Adds . . .

• Similar to the section included on the first page of every *Pediatrics* article

• Summarize in 50 words or less *what your study adds* to the information that’s already published

**EXAMPLE:** This large cohort study demonstrates that topical Abc® is a well-tolerated alternative to oral Xyz® for specific condition Q. It’s most effective for symptom P regardless of severity. Greater improvement occurs in children less than 5 years of age. Longer treatment results in better response.
Background/Literature Review

• This will be a **brief** literature review for your audience, where you discuss **only** the **most relevant** articles or texts that you used in your research.

• Use this section to **build the case for your study**; explain why this research is important.

• In this section, use *text citation format* (authors, publication year) and a **brief** statement about what you gleaned from their work and how it supports your research.

• Include the full reference at the end of presentation.
Background/Literature Review

• Insert additional slides for background/literature review as needed
• It is likely that you will have 3-4 slides for this section
Purpose

• A clear, concise statement of the specific aim or objective of the study
• Includes variables, population, and setting
• Examples of statement prefix: “The purpose of this study is to:
  • Describe…
  • Determine differences between groups…
  • Examine relationships among…
  • Determine the effect of…”
Study Aim(s)

• Specific statements that focus on what variables or concepts are to be described and what relationships might exist among them

• Create an aim statement for each set of variables to be studied
Hypothesis(es)

- Include this formal statement of the expected relationships among variables
- A hypothesis translates the research purpose and aims into a clear explanation or prediction of the expected results or outcomes of the study
  - Include variables to be measured/manipulated
  - Identifies population under study
  - Indicates the proposed outcomes of the study
  - Influence of study design, sampling technique, data collection, analysis methods and interpretation of findings
Example

Study Purpose: To describe the use of a progressive mobility protocol in the surgical heart unit.

Specific Aims:
1. To compare the ICU LOS from before to after use of mobility protocol as measured by average daily LOS over 6 months.
2. To compare the number of ventilator hours from before to after use of mobility protocol.
3. To evaluate the change in daily patient report of mobility as measured by visual analog scale.

Hypothesis: We hypothesize that when a standard mobility protocol is followed, we will see an overall decrease in LOS and ventilator hours in cardiovascular surgical patients in the ICU. In addition, those patients will have perceived improved mobility by ICU discharge.
Study Design

• Describe the design you propose to use

• This is the **blueprint** for conducting your study

• Guides the research in planning and implementing a study
  – Maximize control over factors that could interfere with the validity of the findings

• Control provided by the design increases the probability that the study results are accurate reflections of reality
Sample

• Define the selected group of people (or elements) from which data are collected for your study
• Consider such characteristics as: age, gender, race, illness severity, concomitant conditions/illnesses
• Inclusion criteria: prerequisites for entry
• Exclusion criteria: characteristics to be excluded (e.g., confounding factors)
Measures/Instruments

• Describe measures or instruments you will use in your study (use established and tested measures when available and appropriate)
• Provide rationale for chosen measures
• Provide reliability and validity for measures
Operational Definitions

• Clarify and define the outcomes of interest (i.e. variables) in your study.
• Specify the operations that you will perform to measure it (i.e. use an instrument, record a specific measure from the EMR)
• Consider how the variables have been measured in the literature
Examples of Operational Definitions

**Variable:** Sepsis work-up

**Defined as:** a compilation of all of the following tests
- Complete blood count
- C-reactive protein
- Blood culture(s)

**Variable:** Bronchopulmonary Dysplasia (BPD)

**Defined as:** requiring oxygen at 36 weeks corrected gestational age
Study Procedure(s)

• Once a research subject is in the study, what happens?
  – *Write it like a recipe: detailed, specific*

• Describe data that will be collected and methods of measurement
  ➢ What data?
  ➢ When? How often?
  ➢ How collected and processed?

• Insert additional slides as needed
Data Analysis

- Describe your plan for statistical analysis
- Your chosen tests should be consistent with your study purpose and design

<table>
<thead>
<tr>
<th>Study Purpose</th>
<th>Types of Designs</th>
<th>Statistical Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>To describe variables</td>
<td>Descriptive study designs</td>
<td>Measures of Central Tendency, Chi-square</td>
</tr>
<tr>
<td>To examine relationships</td>
<td>Correlational study designs</td>
<td>Pearson Product or Spearman rho</td>
</tr>
<tr>
<td>To determine differences</td>
<td>Quasi-experimental study designs</td>
<td>t-test, ANOVA</td>
</tr>
<tr>
<td>To test a treatment</td>
<td>Experimental study designs</td>
<td></td>
</tr>
</tbody>
</table>
Results

• Include a summary of the outcomes of your study
• Include a concise description of the outcome as well as tables and figures, showing statistical results
• Your results should be organized and linked to the study aims and hypothesis
Tables and Figures

• Make sure that your data is not too complex for a single graph. Often, you can split one chart into two to make the point more clearly.

• Label your graphs clearly and consistently; include axis titles and legends

• Choose the right chart type for your data (ie. Bar chart, Pie chart, etc.)

• It’s often useful to add an arrow or callout to the chart to point out important data or trends

• When presenting graphic information – start by describing which variable is displayed on each axis and its unit and the legend
Example of Bar Graph with Benchmark

2012 Percent of Patients with TAT less than 10 Minutes

1st Qtr: 88%
2nd Qtr: 83%
3rd Qtr: 85%
4th Qtr: 85%

Department Goal 85%

TAT = Turnaround Time
Example of Line Graph with callouts for important information
Discussion

• Include highlights of your key findings and the impact based on previous literature
• Include implications for practice
• Include future research needed to address residual or new questions that surfaced with your work
• Identify any limitations of your study
Conclusions

- What do you conclude from the results?
- Include suggestions for applications
Acknowledgements

• Acknowledge those study team members and hospital associates, including your mentor, residents, fellows, nurses, and/or office staff who provided ancillary or intermittent assistance but who did not make a direct and significant contribution to the study.

• Include funding sources using complete and formal titles.
References

• Include proper references for those citations included in the presentation.
Questions