Promote Yourself and Your Research With a Dazzling Presentation

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Learning Objectives

• Understand basic components that should be included in oral presentation of original research findings to professional audience
• Learn key principles of effective slide design, including color, contrast, and balance
• Understand how to present information to maximize audience understanding
• Learn tips for taking questions from audience at professional meeting
Overview of this Presentation

- Know your audience
- Components of research talk
- Effective slide design
- Transitions
- Taking questions

Effective presentations

Components of Research Talk
“The research talk”

• Fairly similar to research article
  • Hook
  • Overview
  • Introduction
  • Methods
  • Results
  • Discussion
  • Summary
  • Acknowledgements
  • It varies but many talks are around 45 min

Example (imaginary) talk based on this paper

Factors associated with long acting and permanent contraceptive methods use in Ethiopia

Gedefaw Abebe Feladu12, Akinyinka O. Omigbodun1, Olumuyiwa A. Roberts3 and Alemayehu Worku Yake4
Know Your Audience

- Before talk get as much information as possible about audience
- It will impact:
  - Type and amount of background you provide
  - Jargon and other language
  - Applications of research

The Hook

- Draw audience in to become interested in your presentation
- Tell a story
- Set the stage
- Ask a question of the audience
- State the problem in stark terms
• Background on Ethiopian priorities for LARCs and current level of use
• DHS data and time periods of study
• Time trend for LARC use and factors associate with use
• Challenges and next steps

Overview should be specific

• Introduction
• Methods
• Results
• Discussion
• Applications
Introduction Elements (1-2 slides for each)

- Why important
  - Consequences of unintended pregnancies in Ethiopia
- Context/ setting
  - Maps helpful for an international audience
- Problem
  - The government provides free LARC and permanent contraceptives but use is low
- Research question(s)/ objectives
  - Examine trends of long acting and permanent contraceptive methods use and identify factors associated with its use in Ethiopia

Methods Elements (1-2 slides each)

- Data set (information about DHS data)
- Sample (who was included/excluded)
- Variables (dependent & independent variables)
- Analytic approach
Results Elements

- Key results only
- Emphasize figures, tables, other visuals
- Where possible always choose a figure over a table

Way too much text

Table 3
Exposure to mass media and family planning messages among married or in union reproductive age women in Ethiopia, 2016

<table>
<thead>
<tr>
<th>Exposure variable</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of reading newspaper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>8373</td>
<td>91.7</td>
</tr>
<tr>
<td>Less than once a week</td>
<td>552</td>
<td>6.0</td>
</tr>
<tr>
<td>At least once a week</td>
<td>201</td>
<td>2.2</td>
</tr>
<tr>
<td>Frequency of listening radio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>6280</td>
<td>69.7</td>
</tr>
<tr>
<td>Less than once a week</td>
<td>1383</td>
<td>15.2</td>
</tr>
<tr>
<td>At least once a week</td>
<td>1384</td>
<td>15.2</td>
</tr>
<tr>
<td>Frequency of watching TV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>6964</td>
<td>78.7</td>
</tr>
<tr>
<td>Less than once a week</td>
<td>1013</td>
<td>11.8</td>
</tr>
<tr>
<td>At least once a week</td>
<td>1517</td>
<td>17.2</td>
</tr>
<tr>
<td>Own mobile phone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>7182</td>
<td>78.8</td>
</tr>
<tr>
<td>Yes</td>
<td>1935</td>
<td>21.2</td>
</tr>
<tr>
<td>Use of internet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>8811</td>
<td>97.6</td>
</tr>
<tr>
<td>Yes</td>
<td>256</td>
<td>2.3</td>
</tr>
<tr>
<td>Heard family planning message on radio in last five months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>7303</td>
<td>77.8</td>
</tr>
<tr>
<td>Yes</td>
<td>2024</td>
<td>22.2</td>
</tr>
<tr>
<td>Heard family planning messages on TV in last five months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>7897</td>
<td>85.9</td>
</tr>
<tr>
<td>Yes</td>
<td>1290</td>
<td>14.1</td>
</tr>
</tbody>
</table>
Long-Acting and Permanent Contraceptive Use

![Graph showing trends in contraceptive use from 2000 to 2016. The graph compares LAPM, IUD, Female Sterilization, and Implant methods.](image-url)
Discussion Elements

• Interpretation (2-3 slides)
  • thoughts on WHY changes happened over time, WHY certain groups embraced different methods

• Strengths/weaknesses
  • be specific and for weaknesses state how it may have impacted results; one slide each

• Applications of findings (1-2 slides)
  • for MDs, policy makers, etc

• Next steps (1-2 slides; be specific)

Summarize your main points at the end (1 slide)

• Do not put details in this part but be specific
• Put this in plain language
• Very important to help people “gel” information

• LARC and permanent contraception increasing in Ethiopia but low compared to national targets
• Odds of LARC and permanent methods higher in wealthier, sales workers, those who wanted more children
• Odds of use lower among women in female-headed households, women with history of abortion
Acknowledgements

• Research funding provided by XX
• Thank you to nurses for helping to collect data, XX
• Thank you to Dr. Smith

Slide Design Principles
Keep it simple

Avoid complete sentences. Only use key words.

Definition of Epidemiology

- Epidemiology is one of the cornerstones of public health and helps to guide policy decisions and evidenced-based medicine practice by identifying risk factors for disease and targets for preventative healthcare.
- Epidemiology is the study of the various factors influencing the occurrence, distribution, prevention, and control of disease, injury, and other health-related events in a defined human population.
- Epidemiologists provide input in study design, collection, analysis of data, interpretation, and dissemination of results.
Effective slides with text

- No more than 5-6 bullets of text
- Do not write in complete sentences
- Keep text short
- Include a visual if possible

Visuals on every slide possible
One message per slide

Roads Cause Environmental Change
Walk people through a visual element
Take time to help them get oriented

Long-Acting and Permanent Contraceptive Use

Percent

<table>
<thead>
<tr>
<th>Year</th>
<th>LAPM</th>
<th>Implant</th>
<th>IUD</th>
<th>Female Sterilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2005</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2011</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2016</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: LAPM refers to Long-Acting Progestin Method, IUD refers to Intrauterine Device.
Animations help your audience focus

Presenter

More cues
More work

Audience

Focus

DESIGN CONSIDERATIONS
Contrast and color.
Low contrast vs. high contrast images

Both maps show low to high values: Which is more effective?
Light to Dark

Same hue (color) light to dark helps eye see low to high pattern.

DESIGN CONSIDERATIONS

Organize to help your viewer process information
Table 4: IFA Adherence level of study Participants

<table>
<thead>
<tr>
<th>Number of IFA pills taken in the preceding 30 days</th>
<th>Percentage of IFA Pills taken % in the preceding 30 days</th>
<th>Level of Adherence</th>
<th>Number (N=582)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 14</td>
<td>≤ 50</td>
<td>Poor compliance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 26</td>
<td>50 - 90</td>
<td>Partial compliance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 - 30</td>
<td>≥ 90</td>
<td>Good compliance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1. Iron folic acid supplement adherence among pregnant mothers receiving antenatal care follow-up in Ethiopia

Effective Transitions
Transitions

- Move from one topic to the next
- Help improve flow of talk
- Transition slides
- Verbal transitions

Example

Effective Transitions
Questions are important

- Let audience know if okay to stop you with questions or save till end
- Anticipate questions: write responses beforehand
- Repeat questions: so important!
- Thank person for asking question
- Practice saying IDK and I’ll get back to you
  - “That is a great question- let me think a little more- can I follow up with you off line?”
Fixed Effects Model

\[ Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 T_{it} + \beta_p \text{Cov}T_{it} + \alpha_i + e_{it} \]

Where:
- \( \beta_0 \) = intercept
- \( \beta_1 \) = coefficient for time varying neighborhood exposure
- \( \beta_2 \) = coefficient for time trend
- \( \beta_p \) = coefficients for time varying covariates
- \( \alpha_i \) = Combined effect of all time-invariant influences on outcome
- \( e_{kit} \) = zero-mean stochastic error, varies over time within participant but not between them

**CAUSAL INFERENCE ISSUES**

- Challenges of observational design?
- “Sorting of people into neighborhoods”

OUTCOME “SUBCLINICAL DISEASE”

- Coronary artery calcium measured with chest CT
  - Exam 1 all participants
  - Exam 2 half participants
  - Exam 3 other half
  - Exam 4 ~quarter participants
  - Exam 5 ~half participants (could have both 4 & 5)
  - Subsets ~equally distributed across sites (within each exam year)
Plan your talks

- Purpose?
- Audience?
- Style?
- Length?
- How much time for questions?
- What will your “hook” be?
- Choose a PPT theme
- Create an outline
- Make a schedule to allow you to practice