
# APC 2012 Research Capacity Workshop

Johannesburg - January 2012

# Introductory Session:

# Doing Research from a Civil Society Perspective

- Why is important to develop research  from a civil society perspective?

- What characterizes research developed from a civil society perspective?

# The Importance of doing research from a Civil Society perspective

Collective thinking

# Research by Civil Society


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# Session 1

# Rigorous Research

# Basic Research Process

- ✓Identify Research Topic
  - ✓Define Research Problem (Questions)
    - ✓Determine how to conduct research (theoretical framework, research design, methods)
      - ✓Analyze and interpret data
        - ✓Report
        - ✓Communicating  Research to different audiences
        - ✓Advocay

# Basic characteristics of rigorous research

# Research is a process

**<u>Rigorous research</u>:**

**The process is clear, documented and feasible**

# Research requires making choices

**<u>Examples of important choices</u>**

- Choice 1: Define the research scope
- Choice 2: Define logistics: locations and time
- Choice 3: Identify participants
- Choice 4:  Identify theoretical approach
- Choice 5: Identify methodological approach

**<u>Rigorous Research:</u>**

**The research choices are clear, justified, transparent.**

# Research is developed by people

The researcher is a person with preconceptions about the topic he/she wants to study

**<u>Rigorous Research:</u>**

**From the beginning: assumptions, beliefs, opinions are clearly expressed by the researcher**

# The research is based on previous knowledge

•There is already knowledge about the research theme, the participants, the locations, the methods, etc.

•Relevant research identifies space for new knowledge

**<u>Rigorous Research:</u>**

**The research is based on State of the Art knowledge created by a extensive, systematic and well organized literature review**.

# The research is coherent

- Theoretical approach
  - the method you choose
    - the techniques you use
      - the data analysis you do
        - the conclusions you propose.

**<u>Rigorous Research</u>:**

**The research must be coherent, with the different elements interconnected**

# The research is coherent

- The research questions
  - The analytical categories
    - Findings and conclusions.

**Rigorous Research:**

**The research design is coherent: its components are interrelated**

# The research is coherent

Techniques
Instruments
Data collection
Data analysis
Data Interpretation

Are coherent with the selected method

**Rigorous Research:**
**The research is methodologically coherent**

Any other basic element
of rigorous research?
(collective thinking)


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# Session 3:
# Developing research questions

# Developing strong research question is essential

- *A Research Question* is a statement that identifies the phenomenon to be studied
- It will guide us all the way through the research process
- It helps define and express the research scope (define research boundaries)

Before developing the research questions …

a comprehensive and concise literature review is needed

# Some notes on literature reviews

- <u>Useful to:</u>
- Set the scene for your own research (narrowing of scope)
- Determine possible gaps in the existing knowledge
- Provide basis for identification of a suitable framework for the analysis and interpretation of your data

# Some notes on literature reviews

Documentary evidence:

- Secondary data produced by others
- For example, statistical datasets, case studies, ‘grey literature’, …
- Online but also offline
- Ask respondents
- Always reference everything!

# Some notes on literature reviews

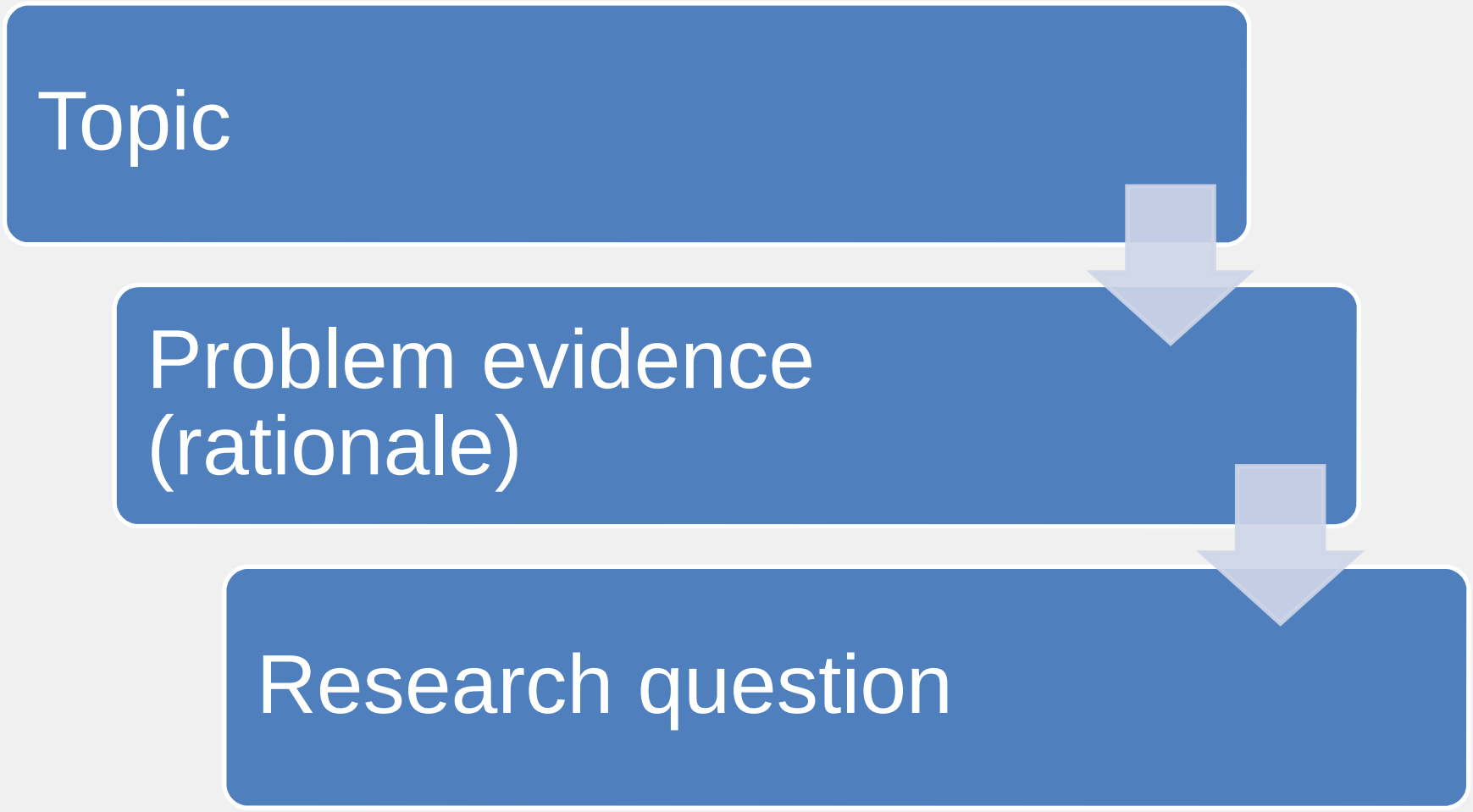
- **Gather information that supports or refutes your arguments/findings/assumptions**

- **Create evidences about the problem you are interested to study** ries, in a particular case)

# Questions to answer before defining Research Questions

- Do I know the field well.
- Are areas that need new exploration?
- Is my study filling a gap?
- Is there a demand for my study?
- Is the target community interested?
- Would funding sources may be available?
- Will my study be significant for the impact I expect?

Developing research questions



# Women in the IT sector

e.g. 4% of women representation at the managerial level (CEO, Owner, Director) in the IT industry, even though there are numerous job openings (among other)

Why are women underepresented in this growing industry?

Which skills and competences do we need to integrate in IT education programs to generate better conditions for women integration in the IT sector? Are there other barriers?

Two phases: developing research questions

## Step one

- At the first stage many questions come to the mind
- Important to write all of them and analyze each of the questions
- Define if they are a yes/no questions or have an easy answer
- Review if they are related with the research problem and with the aim of the research

## Step two

- Selection of research questions
- Base your selection in the type of research you are doing
- Delimitate the number of questions for the research

# analyzing research question

- Not yes/no questions or easy answers
- Clear – intelligible
- Based on evidence
- Linked between them
- Original
- Related with time frame and resources

# From research questions to objectives

- Evidence
  - Research questions
    - Hypotheses or assumptions
      - Aim

Evidence

:

e.g. 4% of women representation at the managerial level (CEO, Owner, Director) in the IT industry, even though there are numerous job openings (among other)

Research Question

Why are women underepresented in this growing industry?

Which skills and competences do we need to integrate in IT education programs to generate better conditions for women integration in the IT sector? Are there other barriers?

:

Hypothesis and assumptions

There is a hidden discrimination for women at the IT sector.

There is a need to change attitudes, knowledge and policies in the education system and the IT companies.

Education systems can contribute to foster cultural change

Aim:

Develop an IT education program that integrates gender sensitive skills and competencies needed for the effective integration of women into the IT sector

# Research Problem

- Provides a signpost for what will be studied and a set of boundary markers to delimit the territory to be covered.

# Tips for developing a Research Problem

- We are studying/working on ….
- Because we want to find out … (who/where/what/when/whether/how/why)
- In order to understand … (how/why/what/whether)

# Example

•We are studying the **women situation in the IT sector**, because we want to find out **why they don´t occupy important positions** as managers or owners of IT enterprises. The aim is to **develop a IT education program** which integrate **skills and competences** to improve their strategic participation in this economical sector.

# Developing research questions
# Work in groups

Topic: Youth and ICT

1. Develop the problem question
2. Develop research questions
3. Analyze questions
4. Select your research question
5. Develop your hypotheses or assumptions
6. Develop your main objective
7. Develop your research problem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# Session 3:
# Research Methods

# Quantitative and Qualitative Research

- Quantitative research :
  - –is not just about using numbers
  - –Is not just about using quantitative techniques
- Qualitative research:
  - – is not just about using text
  - –is not just about using qualitative techniques (interviews, focus groups)

# Quantitative and Qualitative Research

- **Both qualitative and quantitative research are about the methods, and the way we approach and understand reality**

# Deductive vs inductive approach

- **Deductive: Theory informs research.**
  - –Analysis is undertaken following pre-established categories and analyticval concepts
- **Inductive: Theory is the outcome of the research.**
  - –Analytical categories are developed and modified as part of the research, as a work in progress.

Not mutually exclusive but one of them will be dominant.

# Quantitative Research

- ✓Theory
  - ✓Hypothesis
    - ✓Research Design
      - ✓Devise measures of concepts
        - ✓Administer research instruments/collect data
          - ✓Process Data
            - ✓Analyze data
              - ✓Findings and conclusions
                - ✓Write up conclusions/findings

# When to use quantitative Research

- Measurement
- Causality
- Generalization
- Replication

# Quality criteria for quantitative method

- Reliability: quantitative, the results of the study are repeatable
- Replication: clear procedures to replicate
- Validity: integrity of the conclusions that are generated from a piece of research

# Rigor in qualitative research (Guba & Lincoln)

- Trustworthiness
  - Credibility, submitting research findings to the participants for confirmation that the researcher has correctly understood their social world (respondant validation and triangulation techniques)
  - Transferability, qualitative findings are oriented to a specific context and to a specific historical moment. The research includes a “thick description” of its cultural context.

# Rigurosity in qualitative research (Guba & Lincoln)

- Trustworthiness (others to discuss)
  - Dependability, choose an "audience" and guarantee that all the research activities, findings and writing can be understood by this audience who act as an auditor during the research process.
  - Confirmability, because is not possible to be objective in a research process, there is a need to establish the "good faith" of the researchers, in the sense they integrate all the voices and not overtly their personal values and theoretical inclinations.

# Rigor in qualitative research (Guba & Lincoln)

- Authenticity
  - **Represent viewpoints among members** of the social setting?
  - Help members to arrive at a **better understanding of their social milieu**?
  - Help to **appreciate better the perspectives of other members** of their social setting?
  - Promote **engagement to change the circumstances**?
  - **Empower members to take the steps necessary for engaging in action?**

# Mixed Methods: examples

- Parallel:
- quantitative method and qualitative method in parallel or the same research
- Waves:
- Start with qualitative research and at some points conduct quantitative research (to go deeper)
- Start with quantitative research and at some points use qualtitative methods (to complement, triangulate, confirm)