NYUSteinhardt
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Section I: Review of Introduction to Field Experiments

DANIDA

Introduction to Impact Evaluation

Why do impact evaluations?

•Evaluate to learn lessons to implement more effective programs that have societal impacts

•Tells us whether we have good policies and programs. It informs policy making.

Recall:

"Impact evaluation is not M&E, it is R&D (Research and Development.)" – Christopher Blattman, "Impact Evaluation 2.0"

Project Impact

- The measured outcome with the project compared to the measured outcome without, or in the absence of, the project
  - The extent to which the project altered the state of the world

- **Key challenge** to measuring project impact is finding a group of people who did not participate, but closely resemble the participants had those participants not received the program*

- What is the solution? Conduct a randomized control trial

***Source: J-PAL**

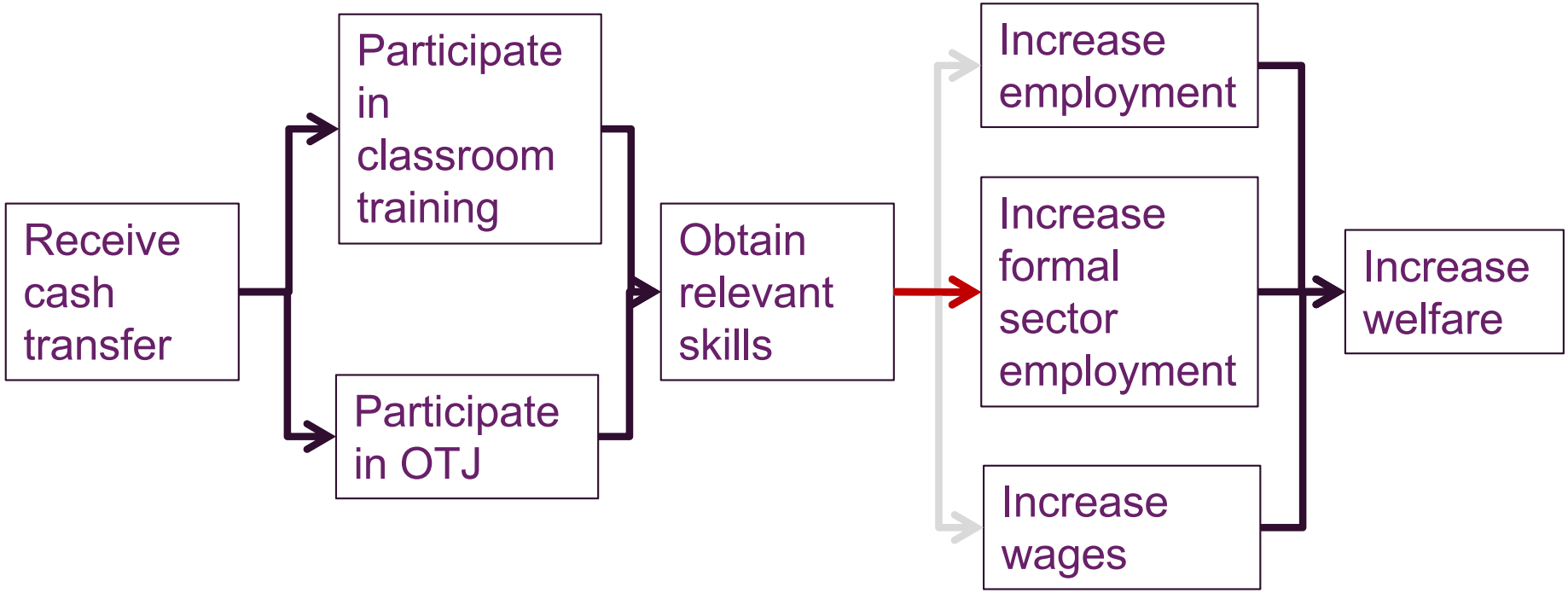
When is impact evaluation is appropriate?

- Any time you want to know project impact
- When there is no "proof of concept" for widely implemented (or very costly) interventions
- To test pilot interventions or designs for possible scale up

Where do I begin?

- Identify the intervention of interest and obtain detailed project information.
- Based on the learning objectives, determine whether an IE is appropriate.
- **Map out the theory of change.**

Vocational training theory of change



What are possible evaluation questions?

Selection Bias

- A bias that occurs because recipients in the treatment are not chosen using random assignment. Self-selection and program placement selection lead to selection bias because recipients in the treatment group can be systematically different from the others.
- Solution: Need to use experimental or quasi-experimental methods to cope with selection bias

Internal Validity

- Randomization ensures that, on average, those in the treatment group are the same as those in the control group and that impact will be the same if either one of the groups were treated.

- A successful randomized evaluation requires:
- Those in the treatment group receive the treatment, while those in the control group do not.
- Those in the control group are not affected by the treatment in anyway.
- Outcomes for members of both treatment and control are measured at the end of the program.

External Validity

The ability to use the results of the experiment to know what will happen when we carry out the program more broadly in the future, in other communities, etc.

Can we generalize from the people and communities who participated in the experiment to the people and communities we will be targeting in the future?

Randomized Control Trials

- Referred by some as the *gold standard* of impact evaluation
- Random allocation of treatment prevents selection bias
- Randomization balances groups
  - Balancing occurs on observed and unobserved characteristics

Randomized Control Trials

- Need a reasonable number of units for it to work
- The fewer units over which you randomize, the less likely the balancing property kicks in and the higher your uncertainty about impact
- An RCT randomly assigns units to ‘treatment’ and ‘control’ or to ‘program A’ and ‘program B’ and then compares the outcomes across these groups
- **RCTs are *prospective*: you establish learning goals, and then design the program based on the learning goals.**

Units of Randomization

- Unit of randomization:
  - The unit for which we 'flip the coin'

- We can randomly select individuals to take part in an intervention, or we can select whole groups, also known as clusters:

Intervention	Cluster
Conditional cash transfers	Villages
Bed net distribution	Health Clinics
Community management	Schools
Social support	Family

Source: J-PAL

How to choose the level?

- Nature of the treatment
  - How is the intervention administered?
  - How many people are likely to be affected by intervention?

- Generally, best to randomize at the level at which the treatment is administered

- BUT there are **practical concerns**:

- E.g. randomly assign schools to receive teaching tools
- → **Contamination**: can we prevent teachers from sharing resources with other schools?
- → **Fairness**: Do school principals / teachers / parents agree to our research design?

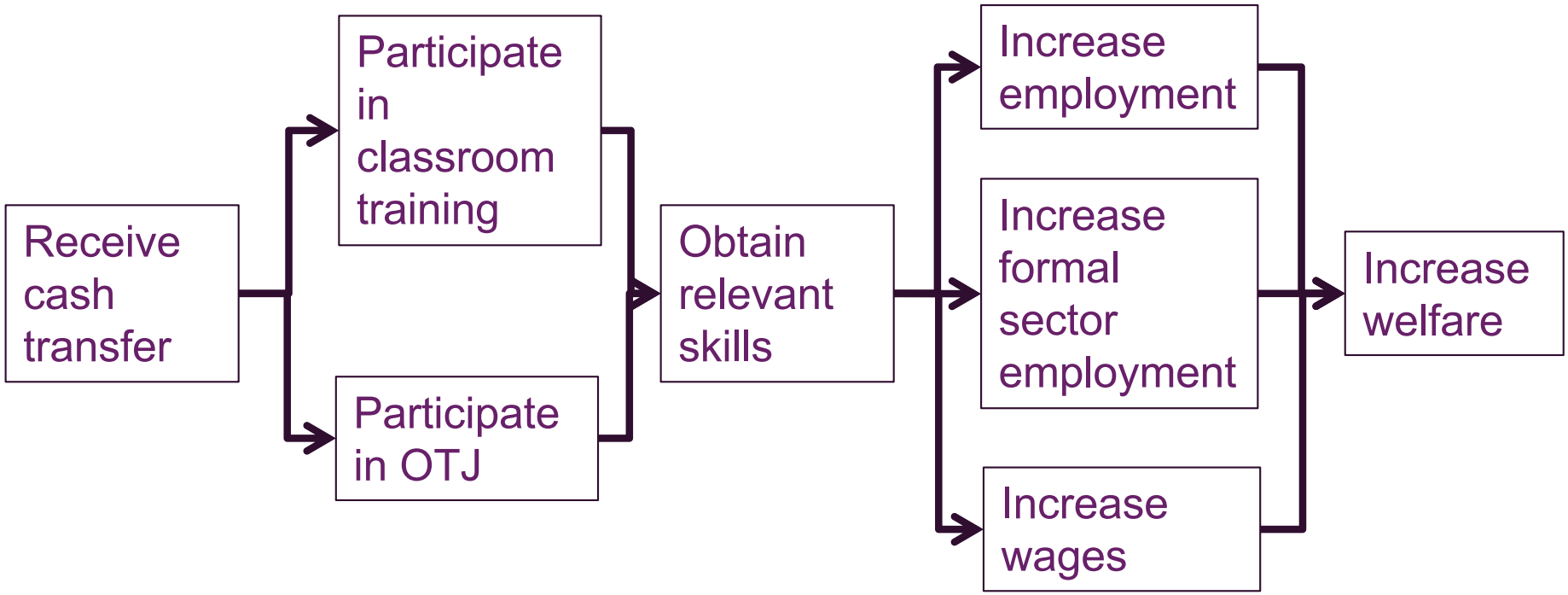
Methods of Randomization

- Lottery
  - Simple, common and transparent
  - Not as politically problematic as often claimed
  - Participants know the "winners" and "losers"
  - Useful when there is no good reason to discriminate
  - Perceived as fair
- Phase-In Design
  - Over a period of time, extend intervention to entire population
  - Advantages: everyone gets something eventually & provides incentives for those in control group to maintain contact
  - Concerns: can make it difficult to measure long-run effects
- Encouragement Design
  - Sometimes it is practically or ethically impossible to randomize program access
  - Instead, randomize encouragement to receive treatment
  - Encouragement = something that makes some people more likely to use program than others
  - We compare those who were encouraged to those who were not

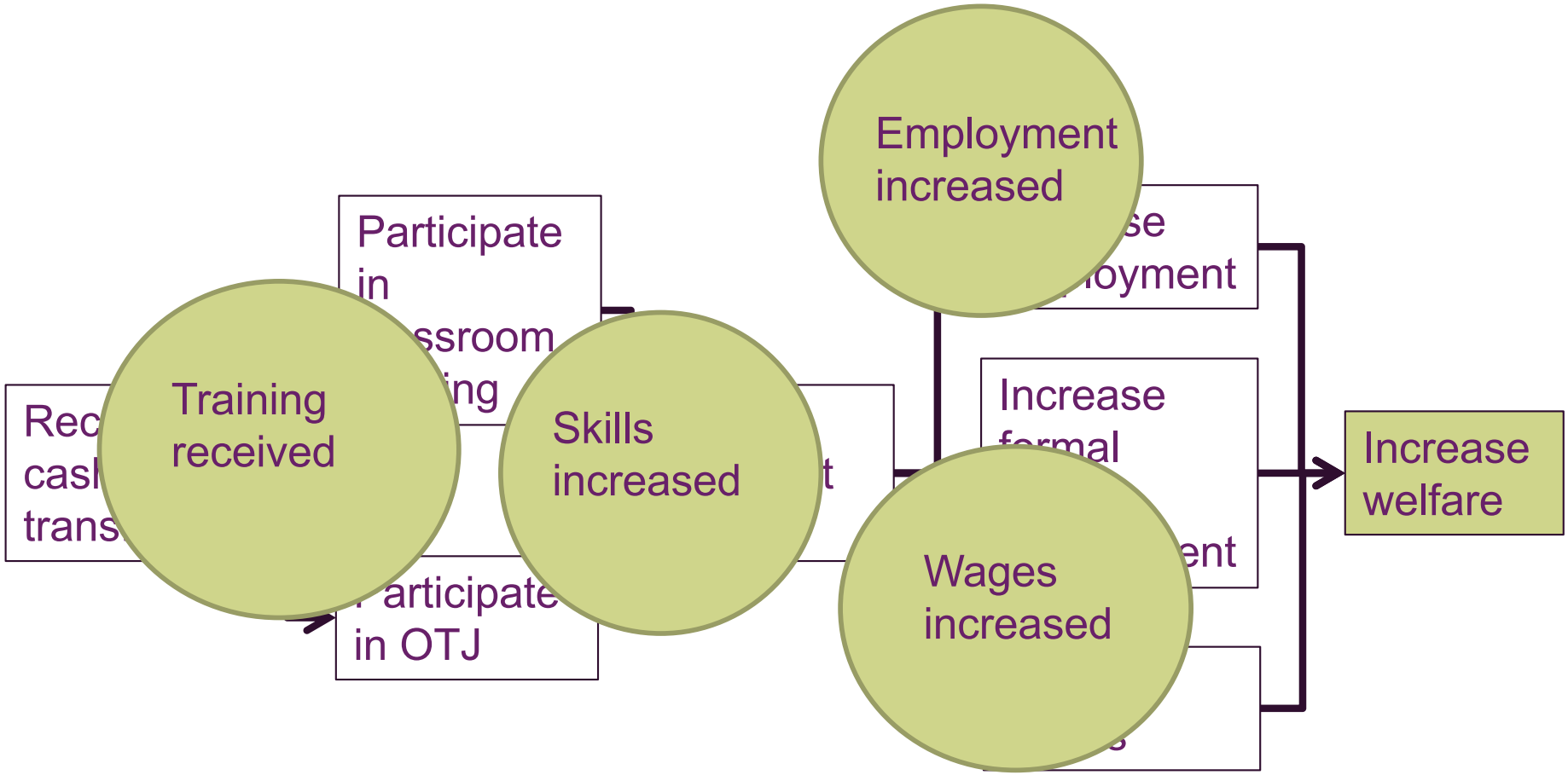
METHODS ARE NOT MUTUALLY EXCLUSIVE!

Defining & Measuring Outcomes

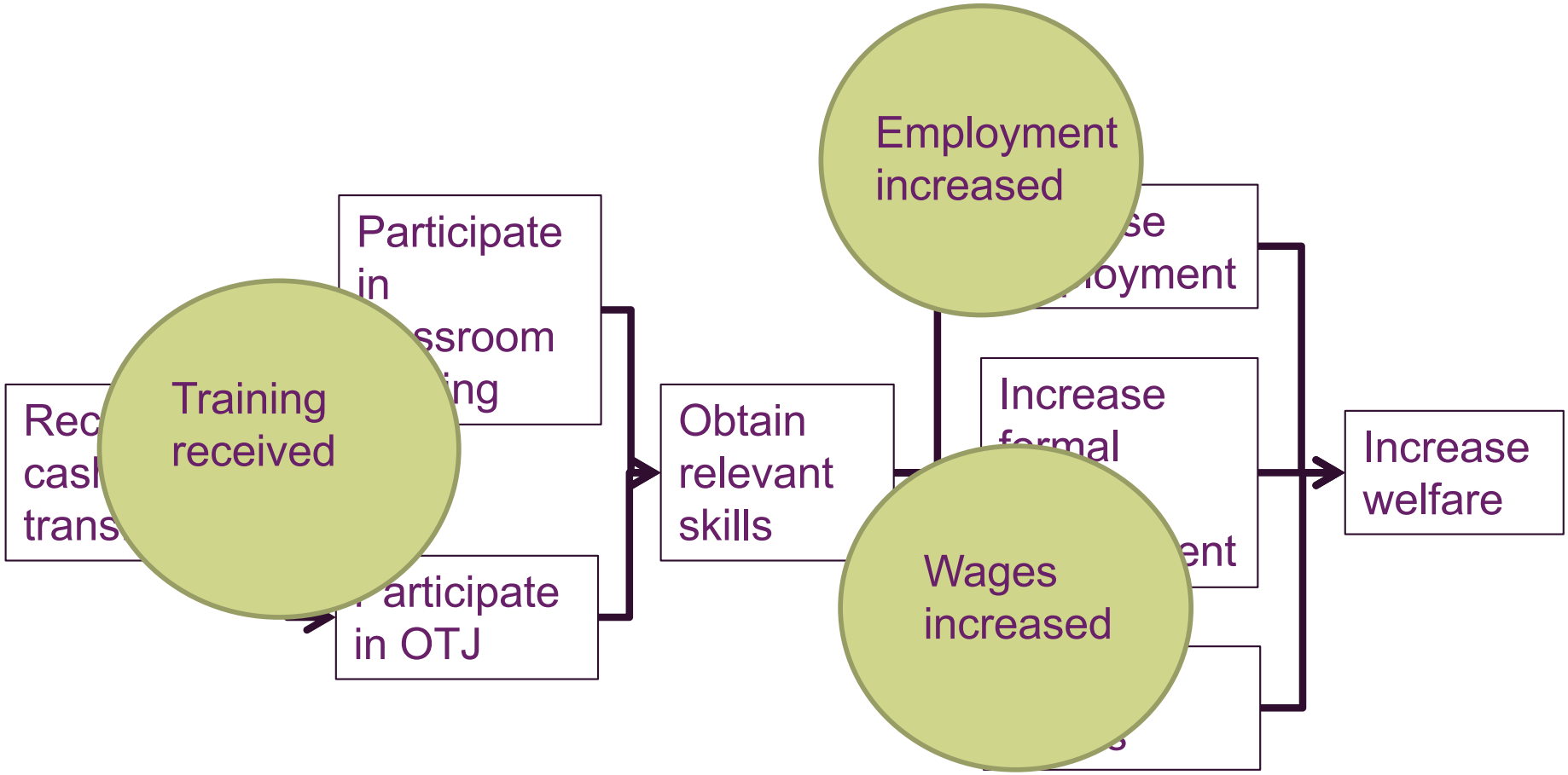
Recall the vocational theory of change



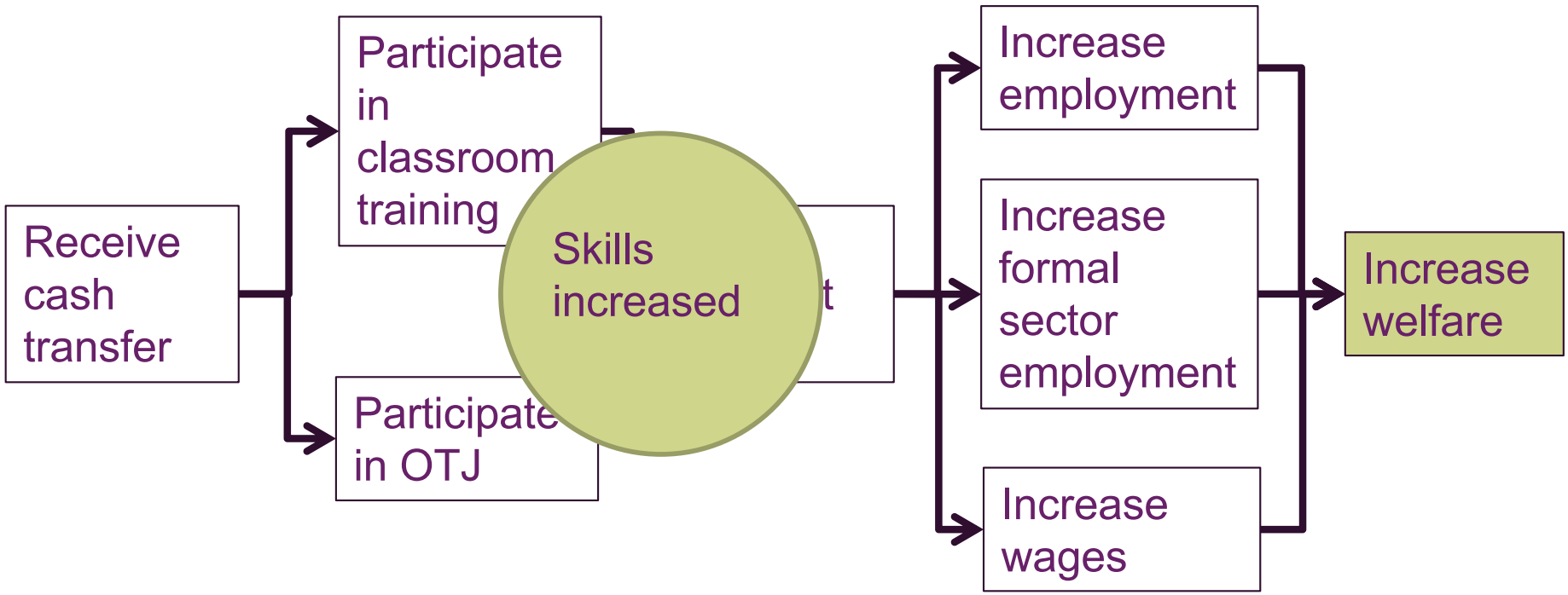
Outcomes along the theory of change:



Measuring is easy:



Measuring is hard:



Measuring Outcomes

Choosing different types of indicators:

-"Self reported" by subjects

- Knowledge
- Attitudes

-"Direct observation"

- Administrative data
- "Real world" observation

Recommendations

- Use a multidisciplinary approach to understand the theories of change and construct outcome measures.
- Triangulate different measures of same outcomes—self-reported vs. observed.
- Measure outcomes along the causal chain.
- Use standard measures where possible for comparability.

Using Impact Evaluation Evidence

- **Define goals:** inform or change policy, determine how programs should be applied, propose ideas for new programs to be tested
- **Define stakeholders and audiences:** communities, policy makers, academics
- **Define dissemination strategies**: policy briefs circulated by specialist organizations, technical reports, to donors and academia, local outreach

Section II: Basics of Social Science, Research Design, and Developing Research Questions

What is social science research?

- Tries to understand social relationships, trends, and events (behavior, culture, societies)
  - It tries to make sense of the world around us: why do people do what they do, why do particular events happen?
  - Examples: Why do some children not attend school? Why do some children have worse grades than other children?

- Social research is a way of "telling about society" Howard Becker 1986 (Doing Things Together)

- Often carried out in order to change social conditions and address social problems

Types of Knowledge

How do you know what you know?

- Traditional Knowledge
  - "This is the way we've always done it"
- Experiential Knowledge
  - "Well it's always worked for me!"
- Common Sense
  - "Everyone knows you catch a cold if you go outside without a coat on."
- Journalism
  - "Despite Education Advances, a Host of Afghan School Woes" (NYT 20 July 2013)

How is social science research different from other ways of knowing?

- **It:**
  - Is systematic/structured/planned
  - Relies on empirical data—information that is observed in the social world
  - Interested in examining patterns, particularly in the social and psychological factors that affect human behavior
  - Strives for objectivity
  - Is provisional

Types of Social Research

- Descriptive research
  - To describe groups, activities, situations, or events (e.g., election polls, the census)
- Exploratory research
  - Understand a process, problem—asks "what is going on?"
- Explanatory research
  - To explain why something occurred, or why people behave the way they do (manipulating variables)
- Evaluation research
  - To monitor how well a program or technique is working
- Critical research
  - To critically assess some aspect of the social world (often considering power structures)

Applied Research

- Primary purpose is to suggest actions that can be taken to solve a problem effectively
- Seeks to provide information that is immediately useful
  - Designed with a practical outcome in mind
- Different from general social science research?
  - The lines are not that rigid, especially in the social sciences

Qualitative Research

- Social science research can be either qualitative or quantitative

- Difference between qualitative and quantitative research: What are some examples of qualitative vs. quantitative research questions?

Key Goals of Qualitative Research

- Understanding meaning
- Understanding context
- Identifying unanticipated phenomena and influences
- Understanding a process
- Developing causal explanations (TWO kinds of causal explanations… VERY IMPORTANT: *variance* and *process*, qualitative methods better suited to the latter)
- Generating "understandable and experientially credible" results
- Conducting formative evaluations
- Engaging in collaborative action

Three Goals (for qualitative research according to Ragin)

1. Giving voice: in-depth studies to represent marginalized or typically unrepresented groups; e.g. studying homeless people
2. Interpreting phenomena: in-depth studies of historical or cultural events to understand their influence; e.g., the way Obama's presidency has affected race relations
3. Advancing theory: useful to elaborate a relationship between two processes by conducting a detailed assessment of its component parts (e.g. how parent involvement in homework increases children's achievement)

Quantiative vs. Qualitative Research

(adapted from Dr. Cathryn Magno, January 31, 2013)

Quantitative research tends to:	Qualitative research tends to:
Explain what social relationships exist	Explore or describe social phenomena, explain *why* and *how* things happen, understand how people make meaning
Have a fixed design and process for analysis	Be flexible in design
Rely on numbers	Rely on words, texts or images
Have large samples	Have smaller samples
Have “objective” measurements	More “subjective” or interpretive
Statistical analysis	Analysis looks for patterns and themes

Continuum of Qualitative to Quantitative Methods

- Qualitative methods
- Mixed methods
- Quantitative methods

Depending on the research goals and underlying assumptions, a researcher may privilege one type of method over another

What are Qualitative Methods?

What kinds of questions might you ask about the students in these photos that would be well suited to explore using qualitative methods?

Students in eastern Afghanistan
February 2009

Photos from the Guardian webpage:
http://www.guardian.co.uk/world/gallery/2009/feb/17/afghanistan-women?picture=343342139

Examples of Qualitative Questions (related to program design) (from LeCompte and Schensul 1999)

- "What does program resilience mean and how can we define and operationalize it?"
- "What is happening in xyz program?"
- "How does this program's history and what is happening in it contribute to the outcomes we observe?"
- "Why is xyz program successful?"

Designing Qualitative Research

Qualitative research can be *inductive* or *deductive* – both approaches are common, but it is usually associated with inductive research

What's the difference between the two?

Designing Qualitative Research

- Inductive: “Process of using evidence to formulate a general idea…” (Ragin, p. 188); a researcher develops a new idea or theory based on new evidence

- Deductive: “Process of deriving…specific ideas or propositions from general ideas, knowledge, or theories,” (Ragin, p. 186) and testing them using specific data (evidence)

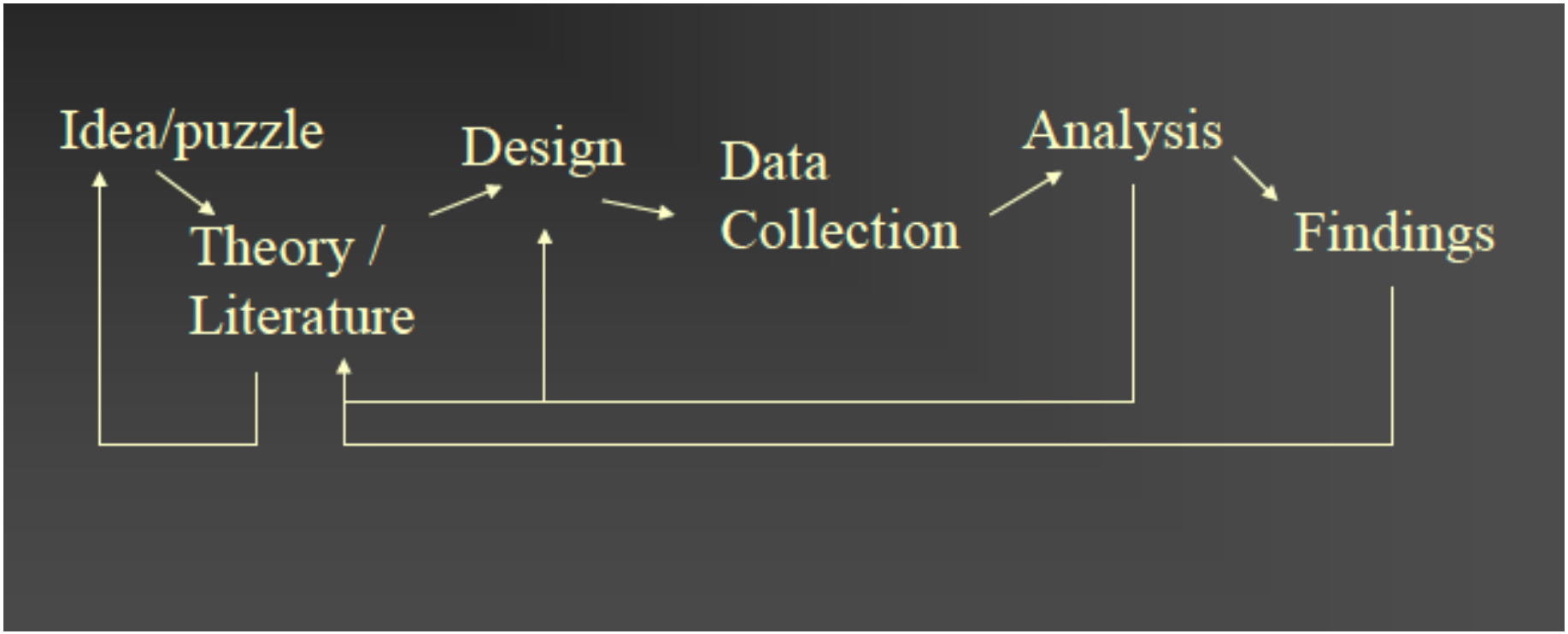
Designing Qualitative Research

Critical use of conceptual frameworks: Develop concepts that help you understand the case you are studying and why it is important before you begin your research.

I argue that research shouldn't be a "fishing expedition" even if it's open-ended, exploratory; you should start with some ideas of and even about what you are studying and why.

Example of the Qualitative Research Process

(adapted from Dr. Cathryn Magno, January 31, 2013)



Steps in Qualitative Research Design
(from Maxwell 2005)

1. **Goal**: What issue do you want to understand? What practices, policies, programs do you want to influence?
2. **Conceptual framework**: What theories, beliefs, or prior research or experience will guide or inform the research?
3. **Research Question**: What specific question(s) do you have?
4. **Methods**: What methods will allow you to answer your research questions? What is feasible? (Includes considering participants, sampling, data collection techniques, and analysis strategies.)
5. **Credibility**: How might your conclusions be wrong? What are alternative explanations? How can you data the ensures credibility?

Two Types of Qualitative Research Design

- Ethnography
- Case studies

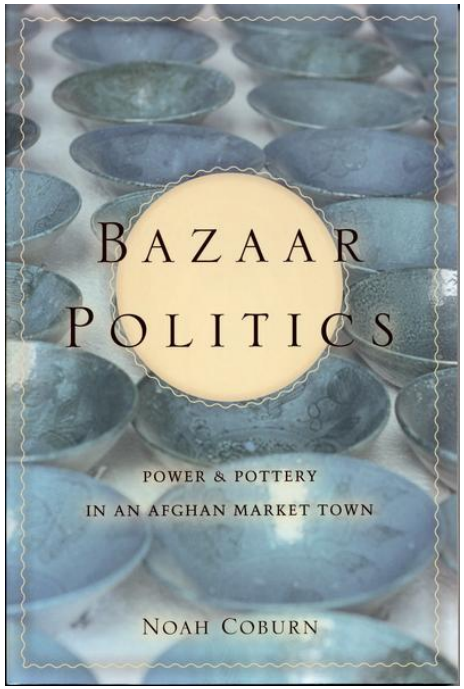
Key Points about Ethnography

- “Guided by and generates theory”
- Characteristics, parameters, or outcomes of the subject of study are unknown, unclear, or under explored (p. 83)
- Can use both qualitative and quantitative approaches
- Typically conducted locally
- Applied research (Schensul et al.)
- Focus on deep understanding of context and culture
- Has roots in anthropological research

What does ethnography look like?

- Carried out in a particular setting(s): “field immersion”
- Typically does not involve more than 1-3 settings (small number of cases; research is in-depth rather than broad).
- Main qualitative data techniques used are often participant-observation (or just observation), interviewing, and focus groups.

Example of an Ethnographic Study



- **Ethnographic study of Istalifi potters by Noah Coburn**
- **Investigates power and relationships at various levels, from the potters' families, to local officials, religious figures, NGO workers and international community**
- **Reveals how the international community misunderstood the forces driving local conflicts**

http://www.amazon.com/Bazaar-Politics-Pottery-Stanford-Studies/dp/0804776725

Key points about Case Studies

- In-depth exploration of a single case (individual, group, event, school, classroom)
- Preferred when “how” or “why” questions are posed
- Explanatory, exploratory, descriptive
- Used when context is also important to the phenomenon
- Holistic – multiple forms of investigation employed

Key points of theories—another way of thinking about them

Types of Theories:

- Individual
- Group
- Organizational
- Societal

**these categories are especially useful for case study research (unit of the case)

Key components of case study design

- Study's questions
- Propositions (hypotheses)
- Units of analysis
- Logic linking data to hypotheses
- Criteria for interpreting findings

**Also it is possible to do a multiple case study as it enables comparison.

Logic of Case Studies

Literal or theoretical

Case studies are typically identified so that they can either produce similar results (literal prediction), or produce contrasting results but for predictable reasons (theoretical prediction).

Case Study Example:

Afghanistan Research and Evaluation Unit (AREU) published several case studies on education in Afghanistan

- Case study conducted in cluster of villages in Nesher in 2005
  - Why do some households decide to send their children to school, while others do not?
  - Why do some children in a household go to school, while others in the same household do not?
  - Why do some children stay in school, while others drop out?

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Source Note: Accessed from AREU site on 12/4/13

What type of questions are best suited to qualitative research?

Qualitative research questions:

- Typically seek to explain why or how.
- Tend to ask about the process rather than the outcome.

Developing the Research Questions Best Suited to Qualitative Methods

Developing research questions step-by-step (adapted from Booth et al, 2008, p. 51)

1. Identify your topic:
   - "I am studying _____"
2. Identify your research question (what you do not know or understand about your topic)
   - "Because I want to find out who/what/when/where/whether/why/how _____"
3. Identify the significance (so what? What practical or conceptual importance is there)
   - "In order to help my reader understand _____"

Tips for developing qualitative research questions

Make sure:

- The questions are clearly stated
- The concepts included are clearly defined
- The questions are researchable

Operationalizing Your Question

- Definition: create categories/boundaries that distinguishes your topic as a phenomenon
- Measurement: measure the phenomenon
- Establish validity/credibility: assess adequacy of your measures
- Establish reliability: ensure consistency in the process

Operationalizing Your Question

- Category
- Sub-category
- Item/fact

Conceptual Steps in Preparation to Start Your Research

- Review ideas from previous studies
- Develop main research question
- Look at secondary data
- Talk with other people with experience conducting research in your setting
- Build your conceptual framework
- Identify domains and factors for additional exploration

Session III: Research Ethics

Basic Ethical Principles in Research

- Respect for people
- Do No Harm
- Justice: the study should not benefit some groups to the detriment of others

Ethics in Selection and Recruitment

- Do not coerce participation (e.g. do not require participation of those under your own authority)
- Indirect methods of recruitment are preferable, although not always feasible
- Selection should be fair and equitable based on the relevant population
- Be sensitive when including children (as they are particularly vulnerable to coercion)

Informed Consent

- Participants must be made aware of the nature of the research, what the information they provide will be used for, and any risks to participating
  - The researcher is responsible for making sure that the participant understands
- They must officially state their consent to participate
  - In a setting like Afghanistan, this typically occurs verbally
- Participants should be given a way to contact the researcher with any questions or concerns

Participant Privacy and Confidentiality

- Where possible, recruitment procedures should be carried out so that participants volunteer/ identify themselves to the researcher
- Data should be stored without identifying information, including the participant's name or where s/he lives
- Data should be stored in a secure place (e.g. locked file cabinet; password protected files on computers)

SESSION IV: Case Selection and Sampling

Case Selection vs. Sampling

- Case selection: often comprise a larger category (e.g. a school, community, neighborhood)
- Sampling: often smaller units (e.g. students, community members, families)
- Can sample within the selected case
- Not always a complete distinction between case selection and sampling: often use similar techniques

Case Selection Overview

~~Most common purposeful sampling subcategories:~~

Strategies for case selection:

- Maximum variation: Document diverse variations and identify important common patterns
- Extreme or deviant: Provide unusual examples of the phenomenon of interest
- Typical: Highlight the average example of the phenomenon
- Stratified purposeful: Expand information about subgroups and facilitate comparisons between them (Creswell, 1998, 119).

Sampling Techniques

(adapted from Dr. Cathryn Magno, February 21, 2013)

- **Criterion:** The research selects particular criteria that respondents or cases must meet
- **Homogenous:** Sampling to reduce variation between respondents or cases
- **Maximum variation:** Selects for wide variation on variables of interest
- **Snowball:** Participants (often interviewees) refer the researcher to other respondents
- **Convenience:** The researcher selects the most immediately available respondents (not recommended)

Sampling
(adapted from Dr. Cathryn Magno, February 21, 2013)

- **Sample Frame**: Defines the boundaries of a sample--what is the population that you are studying?

- How many cases?
  - Depends on the research question and form of analysis
  - "saturation": when do you stop learning anything new?

Gaining Access

Five steps to gain access:

- Identify “gatekeepers” and key informants
- Describe the project
- Interview key informants about community and about their views of your subject
- Ask for advice and assistance in identifying others
- Maintain regular communication!

Section V: Semi-Structured Interviews

Interviewing as Qualitative or Quantitative Research

Certain **data collection instruments** are used for qualitative or quantitative research:

For example:

- Open-ended or semi structured interviews (qual.)
- Standardized interviews (close-ended surveys) (quant.)

Overview: Responsive Interviewing Model

- Emphasis on getting context and richness of information
- Flexibility of the structure: general questions and follow up questions are developed, but are not necessarily asked in the same way or order every time
- The personalities of the interviewer and interviewee impact the questioning

Interview Protocol or Guide

- A tool that outlines the main research questions
- Often include follow-up questions
- Can be followed more or less closely, depending on the type of analysis intended

Main Questions

- Backbone of the interview. The questions that correspond to the main topics that we want to know more about.
- Semi-structured interviews usually contain about 4-6 themes, or main questions.
- Often formed based on:
  - Personal experience or knowledge
  - Literature review ~~(what does the literature say is significant?)~~
  - Preliminary research

Follow Up Questions

- Follow up questions are critical for gaining depth, detail, vividness, and nuance. These questions should respond to the following issues (R&R, pp. 173-175):
  - Oversimplifications
  - New ideas
  - Missing information
  - Stories

Probes

- These are techniques to keep the conversation going. They generally ask for clarification, examples, evidence, or sequence. In sum, they elicit detail.

Types of Probes
(from Ragin and Ragin, 2011)

- **Steering probes**: used if the conversation goes off topic
- **Confirmation probes**: used to ensure that you understood the interviewee correctly
- **Clarification probes**: asked to clarify unclear points
- **Sequence probes**: clarify timing and order of events
- **Elaboration probes**: used to elicit more detail or explanation of a particular concept or theme, often one critical to the research questions
- **Evidence probes**: to understand how the interviewee has learned what he or she is describing
- **Slant probes**: to determine the lenses through which the interviewee sees and interprets the world

Semi-Structured Interviews

Access: Cultivating contacts (entrée, logistics, information, lists of additional contacts, key informants)

In creating semi-structured interviews, questions should elicit the following:

– **Depth**: Answers should be more than superficial. Depth adds meaning and understanding.

– **Detail**: Answers should provide descriptive characteristics, or particular details. These add evidence and clarity to the answer.

– **Vividness**: Answers should provide anecdotes or examples, when it makes sense to do so.

– **Nuance**: Answers should underscore variation in meaning.

Tips for Semi-structured Intervieweing

- When developing questions:
  - Ask questions that are concrete, not abstract
  - Do not use jargon
  - Use follow up questions and probes
  - Avoid yes/no questions, generalizations, leading questions

Tips for Semi-structured interviewing
(adapted from Cathryn Magno, February 28, 2013)

- When interviewing:
  - Build rapport/trust
  - Actively listen
  - Maintain continuity and coherence (e.g. do not ask questions you have not yet asked if the interviewee has already volunteered that information)
  - Be aware if your interviewee is trying to tell you want s/he thinks you want to hear
  - Know your own weaknesses (e.g. too empathetic? Not empathetic enough?)

Sample Semi-Structured Interview Protocol (Burde 2006)

- QUALITATIVE INTERVIEW PROTOCOL PILOT STUDY
  - Youth 12-14 Years Old June 2006

- INSTRUCTIONS FOR THE INTERVIEWER:

  The aim of the following interview is to gain an in-depth understanding of the six categories listed below. Your questions should be open-ended, you should try to make the interviewee feel as comfortable and possible, and encourage her/him to speak openly. Asking why he or she says a certain thing, or has a certain idea, is often a good way to encourage more conversation.

  The interview MUST be tape-recorded. You must also take notes, writing down the main ideas from the conversation.

- FOR THE INTERVIEWEE:

  Explain to the interviewee again who you are and what you are doing. Let him or her know that the interview will take some time—probably an hour or an hour and a half. Let the interviewee know that there are no right or wrong answers, that you are interested in knowing more about certain aspects of his/her life (home, school, experiences, activities, etc.). The interviewee can stop anytime she/he likes, and does not have to answer any question that makes her/him feel uncomfortable.

  Read: I'm going to start by asking you questions about the adults in your life.

- Relationships with adults (parents, relatives, teachers)
  - Tell me about the most important adults in your life.
  - Follow up: What is your relationship to them (each one)? What activities do you do together (each one)?

- Daily activities
  - Describe for me an average day.
  - Follow up: What are your favorite things to do? What are your least favorite? Why?

- School (for enrolled children)
  - Can you tell me about school?
  - What are your favorite things to do? Who was your favorite teacher? Why?

- Decision-making
  - How do you make decisions? Can you give me an example of a decision that was difficult for you to make?
  - Follow up: Why was it difficult? Can you give me an example of a decision that was easy?

- Fear/Safety
  - Do you have any worries or fears?
  - Follow up: Why are you afraid of xx? What is your life like these days?

- Future aspirations
  - What do you hope your future will be like when you are grown?
  - Follow up: Where will you live? What will you do?

Section VI: Focus Groups & Observations

Focus Groups

"Explicit use of group interaction to produce data and insights that would be less accessible without the interaction found in a group" (Morgan 1997, p. 2)

Uses:

- Self-contained
- Supplementary
- Multi-method

Focus Groups

Advantages:

- Provide large amount of data (interaction) with a large number of people (6-10 per focus group) in a short period of time
- Excellent for exploring new topics
- Well-suited for discussion of attitudes and decision-making processes
- Provides immediate information about contrasting perspectives among subjects

Focus Groups

Disadvantages:

- Unlike participant observation, does not collect data in a "naturalistic" setting
- Can be difficult to establish effectively (level of homogeneity and difference)
- May be difficult to carry out in societies where agreement is highly prized
- Social differences may be difficult for an external researcher to asses and can prevent "weak" participants from speaking out

Focus Groups

Important role in links to surveys

- Capture the domains needed for the survey
- Determine the dimensions that make up these domains
- Providing the correct wording for an item on a survey (something as simple as “head of household”)
- All of these issues become infinitely more complex when working in another culture/language

Focus Groups

Rules of Thumb or Points of Departure (Morgan p. 34)

- Homogenous strangers as participants (may be difficult to do in foreign environments)
- Structured interview protocol with high level of moderator involvement
- 6-10 participants per group
- 3-5 groups per project
- Less structure and low impact moderator may be more common among qualitative researchers

Focus Groups

Rules of Thumb or Points of Departure (Morgan pp. 35-44)

- Sampling: Minimize bias
- Use theory to determine selection (not meant to be a statistically relevant sample)
- Effective focus groups cover range, specificity, depth, and personal context

Tips for Focus Groups

(adapted from Cathryn Magno, February 28, 2013)

- Being a moderator/facilitator is different from being an interviewer. Responsibilities include:
  - Ensuring the conversation remains respectful
  - Ensuring that all participate
  - Keeping the conversation on track

Observations

- Like interviews, observation can be quantitative or qualitative—on a continuum
  - Counting numbers of times a topic is mentioned (quantitative)
  - Recording what is said about a particular topic, or how it is said (qualitative)

Why Might you Use Observational Methods?

(adapted from Cathryn Magno, February 28, 2013)

When:

- Answering your research question depends on having knowledge or evidence that is best generated by observing (and/or participating in) "real-life" settings/events
- You want to be able to claim that data were "naturally occurring"
- Perhaps the data you require is not available in other forms

Participant-Observer Continuum

(adapted from Cathryn Magno, February 28, 2013)

- You will need to select a role on the continuum between complete participant and complete observer
  - Be aware of the implications of whichever role you select
- Ask yourself what kind of impression you want to make (in the setting)
  - How should you act?
  - How should you introduce yourself?
- Participant-Observation: You see yourself as active and reflexive in the research process
  - Remember not to underestimate the challenge of analyzing your own role in the setting
  - Try not to overestimate your ability to "relate to" participants because you have participated in or shared an experience

Selecting a "Setting"

(adapted from Cathryn Magno, February 28, 2013)

- What is the most appropriate setting to choose?
- Where do the phenomena you are interested in reside – in time and space? What are the setting's boundaries?
- What does the setting represent?
- What is it telling you about?
- How does immersion versus visits to the setting shape what you see or do not see?
- Can you gain access to the setting?
- Will you be an observer or a participant-observer?

What Will you Observe?

(adapted from Cathryn Magno, February 28, 2013)

- Settings or events

- What within that setting:
  - there are **many** elements to observe
  - You must narrow your scope as much as possible before entering the setting (e.g. focusing on how a particular topic is discussed)
  - Counting, mapping
  - Recording interactions, movements, talk, utterances, procedures, etc.

What to Record

- Depending on your research question
  - What people say
  - What people do
    - Define behaviors
    - Include details in descriptions of people
    - Note details in physical descriptions

- Rule of thumb: When you conduct an observation, you are collecting evidence. You should provide the lowest level of information, not a low level interpretation of that information. (See SSL, p. 115)

What to Record

- Quote exactly
- Use pseudonyms or numbers
- Record activities in the sequence in which they occurred
- Include relevant history
- Differentiate your own observations from quotations
- Record date, place, time of observation (see SSL p. 119)

Turning Observations into Data

- Before observing, decide what to record, how to record it, when to record it, and how often
- Whatever you record will constitute your data – or *fieldnotes*
- Decide how to separate descriptive notes from reflective notes
  - You might want to analyze both

Ethical Considerations

(adapted from Cathryn Magno, February 28, 2013)

- Gaining consent from all participants
  - Public, private, semi-private settings
- You will need to develop a self-conscious moral practice, because you might need to make difficult choices as to what to count as data
  - Perhaps someone revealed particularly personal or sensitive information during an observation
  - Do not assume that advance consent covers all eventualities
    - Decisions are individual and always contextual – there is no absolute answer

Weaknesses in Observation

- Participant-observer bias
- Misinterpretation of event/setting/role or identity of person
- Poor recording of whatever you are observing
- Poor recording of critical tracking information (time, date, place, pseudonym, etc.)
- Mislabeling or inconsistently labeling data files

Instrument Protocols: Purpose

- Provide structure
- Increase reliability (especially with more than one researcher)
- Serve as memory aid for the researcher
- Organize information into manageable “chunks”/sections
- Protect human subjects

Designing an Observation Instrument Protocol

- Used by the researcher to record notes about what he or she is seeing or experiencing.
- Observation requires good listening skills and careful attention to visual detail.
- You can observe almost anything! The observation protocol **structures** your observation making it more focused and efficient

Designing an Observation Instrument Protocol

- First, determine your role.
  - **Participant observer**: You become involved in activities at the research site to see experiences from the participants' viewpoint (as an "insider"); you record notes at the same time or wait until you leave the research site if necessary.
  - **Non-participant observer**: You do not involve yourself in activities at the site; you are an "outsider" who tries to be as inconspicuous as possible.

Designing an Observation Instrument Protocol

- A good observation protocol includes both description of activities in the setting and reflections about themes and personal insights gathered during the observation. The typical components of an observation protocol include:
  - A header where you record the time, location, observer's name, type of role
  - Two columns with the titles "description" on the left and "reflection" on the right
  - *NB*: You should decide ahead of time what kind of descriptions you are looking for, i.e., are you describing a teacher's actions, student responses, teacher-student interactions, materials in the classroom room, arrangement of desks, etc

Section VII: Data Analysis and Coding

Analysis

- Goal of analysis to create less data, not more (Wolcott 1988)
  - Analysis reduces data into more manageable form
  - Permits the researcher to identify themes and patterns in the data
- Qualitative researchers start analysis and interpretation in the field and continue throughout the data collection process
- Analysis is deductive and inductive (although one may carry more weight)—it's an iterative process

Interpretation

- Goal:
  - To find meaning in the data
  - To identify connections and significant between what participants say or do
  - To explain the data

Coding Data

- Coding means organizing data into categories that help you understand and interpret the data
- Generally: Organizing data according to your framework and guiding questions
- Specifically: Assigning codes that represent themes, concepts, or categories to sentences from interview transcripts, field notes, documents (This is true for quantitative or qualitative data)

What is a code?

(adapted from Dr. Cathryn Magno, April 4, 2013)

- A name or symbol used to denote a group of similar ideas, words, phenomenon in the data

- Codes should not include value judgments or interpretation (these can be included in notes elsewhere)

** not every piece of text needs to be coded!

Characteristics of Good Codes

(adapted from Dr. Cathryn Magno, April 4, 2013)

- Match the goals of the study
- Describe the main content of responses
- Bring out common themes
- Exhaustive and represent all responses
- Mutually exclusive and do not overlap (conceptually clear)
- Not too broad so that they collapse diverse responses, nor too narrow so that there are as many codes as responses

Coding Data Deductively

- Establish codes before you carry out data collection; during or after is also fine (and all ways can be used deductively)

- Sort data according to the way they match/fit into your categories or concepts

Coding Data Deductively

- Codes are operational (i.e., they mark items or units in the data that are measurable and have observable boundaries) (LC&S p. 57)
- May be a single term or phrase e.g., “barriers to education” would contain all references to any types of barriers
- Codes must be kept at a low level of inference (refers to the degree of interpretation done by coder—low level stays close to concrete description (LC&S p. 58), but can increase slightly in levels of abstraction and be organized hierarchically)
- Coding quantitative and qualitative data is conceptually similar

Coding Data Inductively

"Words are fatter than numbers" (Huberman 1984)

Beginning data analysis (LC&S pp. 68-70):

- "Items": discrete, concrete units of analysis
- "Patterns": collections of items that seem to fit together
- "Constituents": larger groups of patterns that begin to build theory

Language used to refer to analytical terms differs among researchers: I would call these: items, sub-categories, and categories

Coding Data Inductively

Domain analysis (higher level of abstraction) to identify items for classification (lower level of abstraction)

•Domains or "cover terms" are categories used to describe an array of things within that category.

•Terms must exist at the same level of abstraction – this is really important and one of the most difficult aspects of data analysis—ensuring that you preserve the equivalent level of abstraction among categories, sub-categories, etc.

Code Books

Code book should contain (LC & S p. 85):

•All options available for codes if quantitative

Otherwise for qualitative:

•Examples that illustrate the code—behaviors, actions, beliefs, ideas, people, events, activities, etc.

•Set of criteria that spell out what should be "present in a unit before it is coded with that particular code"

Steps of Analysis

(adapted from Dr. Cathryn Magno, April 4, 2013)

1. Transcribe or record the data
2. Read the data
3. Focus/organize the analysis
   - Based on research questions (focus by topic, themes, cases, individual or group)
4. Code the data
5. Categorize the data by identifying patterns
6. Find relationships within and across categories
7. Interpret the data
   - Attach meaning and significance; does it confirm or reject previous findings, what is most interesting/relevant/useful
8. Write up the findings

Designing Qualitative Research Questions for this Study

Assessment of Learning Outcomes and Social Effects from Community-Based Education (ALSE): A Randomized Field Experiment

The study:

- Fixed components: study strategies to maximize learning outcomes and sustain access to primary education centered on community-based education (CBE)
- Additional components:
  - Discussed during the Research Design Meeting held on October 11-12th with ALSE stakeholders, including representatives of the Ministry of Education, Non-Governmental Organizations, and donors
  - Final variations of CBE programming are to be finalized

DANIDA

Research Design

- **Randomized Control Trial**
- **Mixed method design:**
  - Employs both quantitative and qualitative research methods

Sample size:

- 220 villages
  - 160 villages 'randomly' selected to receive CBE classes (treatment groups)
  - 60 villages are in a control group who do not initially receive CBE classes
    - By the end of the study they will receive CBE classes as well

Research Design

Mixed method design:

- Randomized trial and qualitative case study

Sample:

- 220 villages
  - 160 ‘randomly’ selected to receive CBE classes (treatment groups)
  - 60 villages are in a control group
    - By the end of the study they will receive CBE classes as well

What type of questions do we want to ask for this study that are best suited using qualitative methods?