INTRODUCTION TO QUALITATIVE RESEARCH

Training course in research methodology and research protocol development

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GRADUATE ENTRY MEDICAL SCHOOL

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LEARNING OUTCOMES

By the end of the presentation you should be able to:

1. Describe what is qualitative research
2. Demonstrate the differences between Qualitative & Quantitative research
3. Understand the basic concepts of Qualitative studies:
4. Characteristics of qualitative research
    1. Bias
    2. Triangulation
    3. Trustworthiness

CASE STUDY 1
MALARIA

A group of researchers from University of Limerick worked in a village in South Sudan. They did a survey of villagers and asked them what were the most serious problems. The villagers said that one of the most serious problems was malaria.

The researchers tested the blood of some of the villagers and found that malaria was very common. They gave people in the village bed-nets soaked in insecticide and told them that using the nets would decrease malaria.

The people started using the nets. The research team tested the blood of the people and found that there was a big reduction in malaria for those people who used the nets. So they felt the program was successful.

CASE STUDY 1

Later some other researchers came to the village. They found the people no longer used the nets. They said that they didn't work.

The villagers were sceptical of outsiders and were less interested in cooperating in programs to reduce malaria.

Question:

What are possible reasons that the people stopped using the nets?

CASE STUDY 1
THE REAL REASON:

In this case the reason the villagers stopped using the nets was a misunderstanding. By 'malaria' the researchers meant infection with the malaria parasite. But the villagers meant all fevers. Therefore, although the number of 'malaria infections' decreased, the total number of 'all fevers' did not change much in the community's eyes.

For this reason, they felt the nets did not work against what the community called 'malaria' and abandoned using the nets.

Question:

Ask yourself: How could we have discovered the real reason?

QUALITATIVE RESEARCH

Qualitative research is an approach to obtain a lot of in-depth information from people. The aim is to understand WHY people think and behave the way they do. Because we spend a lot of time with people to get this information we usually can only talk with a FEW people.

Qualitative research is a form of social inquiry that focuses on the way people interpret and make sense of their experiences and the world in which they live, and understand the social reality of individuals, groups and cultures.

QUALITATIVE RESEARCH

This is different from quantitative methods like surveys and case control studies. In quantitative research we obtain relatively little detailed information from each person. This is because with quantitative methods we are interested in describing WHAT people do (things like how many people have had vaccinations) - without really wanting details about why the situation is like that. Because we need less time with people to get this information, we can interview A LOT OF people.

Both qualitative and quantitative methods are important, and whether we use one or the other depends on what we are trying to learn.

Quantitative approaches are important and solve many type of research problem. Qualitative research is appropriate for different type of questions.

DIFFERENCES BETWEEN QUALITATIVE & QUANTITATIVE RESEARCH

	Qualitative	Quantitative
1. Aim	1. Exploration of participants' experiences and life world 2. Understanding, generating theory from data 3. Exploratory	1. Search for causal explanations 2. Testing hypothesis, prediction 3. Confirmatory
2. Approach	1. Broad focus 2. Process oriented 3. Context – bound 4. Getting close to data	1. Narrow focus 2. Product oriented 3. Context free 4. In artificial or laboratory setting

DIFFERENCES BETWEEN QUALITATIVE & QUANTITATIVE RESEARCH

	Qualitative	Quantitative
3. Sample	1. Participants & Informants 2. Purposive and theoretical sampling 3. Flexible sampling that develops during research	1. Respondents 2. Randomised sampling 3. Sample frame fixed before research starts
4. Data collection	1. In-depth non-standardised interviews 2. Participant observation / fieldwork 3. Documents, photographs, videos	1. Questionnaire, Standardised interviews 2. Tightly structured observation

DIFFERENCES BETWEEN QUALITATIVE & QUANTITATIVE RESEARCH

	Qualitative	Quantitative
5. Analysis	1. Thematic, constant comparative analysis 2. Content analysis 3. Grounded theory 4. Ethnographic analysis	1. Statistical analysis
6. Outcome	1. Story 2. Ethnography 3. Theory	1. Measurable results

DIFFERENCES BETWEEN QUALITATIVE & QUANTITATIVE RESEARCH

	Qualitative	Quantitative
7. Relationship	1. Direct involvement of researcher 2. Research relationship close	1. Limit involvement of researcher 2. Research relation distant
8. Rigour	1. Trustworthiness 2. Authenticity 3. Typicality 4. Transferability	1. Internal validity 2. External validity 3. Reliability 4. Generalisability

BASIC CONCEPTS OF QUALITATIVE STUDIES

CHARACTERISTICS OF QUALITATIVE RESEARCH

The primacy of data	The theoretical framework is not predetermined but derives directly from the data
Contextualisation	Qualitative is context bound, and researchers must be context sensitive
Immersion in the settings	Researchers immerse themselves in the natural setting of the people whose thoughts and feelings they wish to explore
The 'emic' perspective	Focus on the views of the people involved in the research and their perceptions, meaning and interpretations
Thick description	Describing the location, people within it, visual picture of the setting, events, verbatim, etc
The research relationship	Based on the position of equality
Triangulation	Several methods, data collections, investigators

AIMS OF QUALITATIVE RESEARCHERS

Qualitative researchers	Explore the behaviour, perspectives, feelings and experiences of people and what lies at the core of their lives
Ethnographers	Focus on culture and customs
Grounded theorist	Investigate social processes and interaction
Phenomenologist	Consider the meanings of experience and describe the life world

BE FLEXIBLE

We need to be FLEXIBLE when carrying out a qualitative study.

There are many methods we can use to achieve the same learning objective.

Also we can ask different kinds of questions to learn the same information.

So, if we find that a method or question we are using isn't being understood or isn't working well, we can change methods or use a different question.

This is unlike a household survey where methods and questions are fixed before we start collecting data.

BIAS

"Bias means having only part of the truth, but we use the information as if it were the whole truth"

Since bias is having only part of the truth, we reduce bias by getting more information.

We get more information by looking at something in different ways.

CASE STUDY 2
THE MOUNTAIN

Think of a mountain. If you were standing in one place looking at a mountain and tried to describe it, you would only see one side.

So your description would be biased. You would need to stand at different places to be able to see the whole mountain and really describe all of it.

But even then the description would be biased because you may prefer to describe some things and not others.

CASE STUDY 2
THE MOUNTAIN

Therefore we should bring in other people and ask them to describe the mountain also.

But even then the description is biased because we are all looking at the mountain with the same method, our eyes.

We should use different methods, like using a telescope as well as our own eyes, to get a more complete description.

CASE STUDY 2
THE MOUNTAIN

But the description is still biased because we are all looking at the mountain at the same time of year.

Some months there may be snow on the mountain but not at other times, so we would want to look at different times of the year.

There is a name for reducing bias by using different ways to study the same thing. It is called TRIANGULATION. We do this, triangulation, in qualitative studies to describe populations instead of mountains.

TRIANGULATION

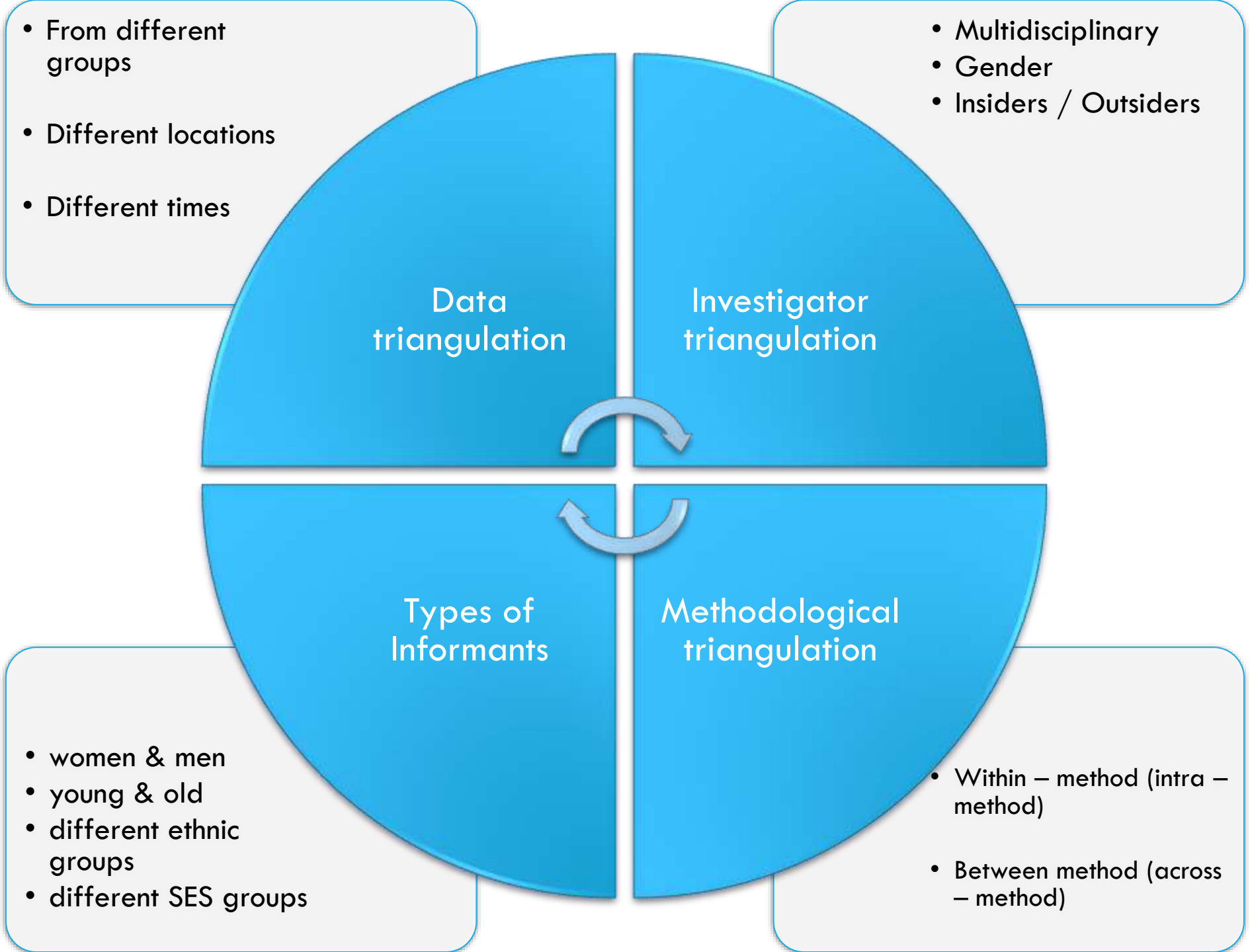
Reduce bias by using team members with different experiences and perspectives

Continuously cross-checking information using different methods and types of informants

- Actively identify bias at the end of each day
- Decide how to manage bias in days ahead

Levels of triangulation

- Data
- Investigators
- Methods
- Information


From different groups
Different locations
Different times
Multidisciplinary
Gender
Insiders / Outsiders
Data triangulation
Investigator triangulation
Types of Informants
Methodological triangulation
women & men
young & old
different ethnic groups
different SES groups
Within – method (intra – method)
Between method (across – method)

TRUSTWORTHINESS

We sometimes say that we trust a person. With this we mean that his behaviour is predictable in that similar behaviour is expressed at different occasions and we believe that the person is not lying. A trustworthy person is someone who tells us the "truth" and dose so consistently.

What then, is trustworthy research?

How can we judge what findings are worth believing?

Several criteria have been established within both quantitative and qualitative research to judge their trustworthiness or rigor:

FOUR CRITERIA FOR ASSESSING TRUSTWORTHINESS

Question asked	Issue	Qualitative	Quantitative
1. Have we really measured what we set out to measure	Truth value	Credibility	Internal validity
2. How applicable are our result to other subjects and other context	Applicability	Transferability	External validity
3. Would our findings be repeated if our research were replicated in the same context with the same subject	Consistency	Dependability	Reliability
4. To what extend are our findings affected by personal interest and biases	Neutrality	Conformability	Objectivity

1) TRUTH VALUE: CREDIBILITY

The ability of the study to capture what the research really aimed at studying, meaning that the result are not simply the product of research design errors, misunderstandings, or influence of unknown factors.

HOW CAN WE IMPROVE THE CREDIBILITY OF A STUDY?

1. Prolonged Engagement (Stay in the field until data saturation occurs.)
    1. counters distortions from researcher's impact on the context
    2. limits researcher biases
    3. compensates for effects of unusual or seasonal events

2. Persistent Observations (Consistently pursue interpretations in different ways in conjunction with a process of constant and tentative analysis. Look for multiple influences. Search for what counts and what doesn't count)

3. Triangulation (The best way to elicit the various and divergent constructions of reality that exist within the context of a study is to collect information about different events and relationships from different points of view.)
   - ask different questions
   - seek different sources
   - utilize different methods

4. Referential adequacy (What materials are available to document your findings? Video tape provides a good record but it can be obtrusive.)

5. Peer Debriefing (This is done with a similar status colleague (not with a junior or senior peer) who is outside the context of the study and who has a general understanding of the nature of the study and with whom you can review perceptions, insights, and analyses.)

- tests working hypotheses
- helps develop next step

6. Negative case analysis: involves the conscious search for data that don't fit the current working hypothesis, within existing data as well as in planned data collection.

7. Member Checks : is an activity that entails brining back the results to the members of the studied group. At different levels:

- Transcripts
- Preliminary report

- corrects errors
- provides additional information
- puts respondent on record
- assesses the overall adequacy of the data in addition to individual data points

2) APPLICABILITY: TRANSFERABILITY

- **Thick Description**

Because transferability is a naturalistic study depends on similarities between sending and receiving contexts, the researcher collects sufficiently detailed descriptions of data in context and reports them with sufficient detail and precision to allow judgments about transferability to be made by the reader.

- **Purposive Sampling**

In contrast to random sampling that is usually done in a traditional study to gain a representative picture through aggregated qualities, naturalistic research seeks to maximize the range of specific information that can be obtained from and about that context by purposely selecting locations and informants that differ.

3) CONSISTENCY: DEPENDABILITY

An inquiry must also provide its audience with evidence that if it were replicated with the same or similar respondents (subjects) in the same (or a similar) context, its finding would be repeated

Increasing Dependability

To enable readers of the research report to develop a thorough understanding of the methods and their effectiveness, the text should include sections devoted to:

The research design and its implementation, describing what was planned and executed on a strategic level;

The operational detail of data gathering, addressing the minutiae of what was done in the field;

Reflective appraisal of the project, evaluating the effectiveness of the process of inquiry undertaken.

4) NEUTRALITY: CONFIRMABILITY

To what extend are our findings affected by personal interest and biases

This is the degree to which the findings are the product of the focus of the inquiry and not of the biases of the researcher.)

Confirmability Audit Trail

An adequate trail should be left to enable the auditor to determine if the conclusions, interpretations, and recommendations can be traced to their sources and if they are supported by the inquiry

RESEARCH ARTICLE | OPEN ACCESS | OPEN PEER REVIEW

Antenatal physical activity: a qualitative study exploring women's experiences and the acceptability of antenatal walking groups

Sinéad Currie, Cindy Gray, Ashley Shepherd and Rhona J. McInnes

BMC Pregnancy and Childbirth BMC series – open, inclusive and trusted 2016 **16**:182 | **DOI:** 10.1186/s12884-016-0973-1

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An example of a qualitative study

http://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-016-0973-1