ESD – NET TRAINING WORKSHOP
APEID – UNESCO CHULALONGKORN UNIVERSITY

SESSION 3

RESEARCH ON ESD

REVIEW

Ethomas
IEUL 2007
SESSION 3
RESEARCH ON ESD - OVERVIEW

DIFFERENT APPROACHES TO THE STUDY OF BEHAVIOUR

Normative
- Society and the social system
- Medium/large-scale research
- Impersonal, anonymous forces regulating behaviour
- Model of natural sciences
- 'Objectivity'
- Research conducted 'from the outside'
- Generalizing from the specific
- Explaining behaviour/seeking causes
- Assuming the taken-for-granted
- Macro-concepts: society, institutions, norms, positions, roles, expectations
- Structuralists
- Technical interest

'Interpretive'
- The individual
- Small-scale research
- Human actions continuously recreating social life
- Non-statistical
- 'Subjectivity'
- Personal involvement of the researcher
- Interpreting the specific
- Understanding actions/meanings rather than causes
- Investigating the taken-for-granted
- Micro-concepts: individual perspective, personal constructs, negotiated meanings, definitions of situations
- Phenomenologists, symbolic interactionists, ethnographers
- Practical interest

Critical
- Societies, groups and individuals
- Small-scale research
- Political, ideological factors, power and interests shaping behaviour
- Ideology critique and action research
- Collectivity
- Participant researchers, researchers and facilitators
- Critiquing the specific
- Understanding, interrogating, critiquing, transforming actions and interests
- Interrogating and critiquing the taken for granted
- Macro- and micro-concepts: political and ideological interests, operations of power
- Critical theorists, action researchers, practitioner researchers
- Emancipatory interest

Source: Based on Cohen, Mannion & Morrison (2007)
## SESSION 3 - RESEARCH ON ESD

### OVERVIEW

#### RESEARCH STYLES IN EDUCATION

<table>
<thead>
<tr>
<th>Model</th>
<th>Purposes</th>
<th>Foci</th>
<th>Key terms</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>Gathering large-scale data in order to make generalizations</td>
<td>Opinions, Scores, Outcomes</td>
<td>Measuring, Testing</td>
<td>Describes and explains</td>
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<tr>
<td></td>
<td></td>
<td>Conditions, Ratings</td>
<td></td>
<td>Represents wide population</td>
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<td>Gathers numerical data</td>
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<td></td>
<td>Generating statistically manipulable data</td>
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<td>Much use of questionnaires and assessment/test data</td>
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<tr>
<td>Experiment</td>
<td>Comparing under controlled conditions</td>
<td>Initial states, intervention and outcomes</td>
<td>Pretest and post-test</td>
<td>Control and experimental groups</td>
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<tr>
<td></td>
<td></td>
<td>Randomized controlled trials</td>
<td></td>
<td>Treats situations like a laboratory</td>
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<td></td>
<td>Making generalizations about efficacy</td>
<td></td>
<td></td>
<td>Causes due to experimental intervention</td>
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<td></td>
<td>Objective measurement of treatment</td>
<td></td>
<td></td>
<td>Does not judge worth</td>
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<td></td>
<td>Establishing causality</td>
<td></td>
<td></td>
<td>Simplistic</td>
</tr>
<tr>
<td>Ethnography</td>
<td>Portrayal of events in subjects' terms</td>
<td>Perceptions and views of participants</td>
<td>Subjectivity</td>
<td>Context specific</td>
</tr>
<tr>
<td></td>
<td>Subjective and reporting of multiple perspectives</td>
<td>Issues as they emerge over time</td>
<td>Honesty, authenticity</td>
<td>Formative and emergent</td>
</tr>
<tr>
<td></td>
<td>Description, understanding and explanation of a specific situation</td>
<td></td>
<td>Non-generalizable</td>
<td>Responsive to emerging features</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Multiple perspectives</td>
<td>Allows room for judgements and multiple perspectives</td>
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<td></td>
<td></td>
<td></td>
<td>Exploration and rich reporting of a specific context</td>
<td>Wide database gathered over a long period of time</td>
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<td></td>
<td>Emergent issues</td>
<td>Time-consuming to process data</td>
</tr>
<tr>
<td>Model</td>
<td>Purposes</td>
<td>Foci</td>
<td>Key terms</td>
<td>Characteristics</td>
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<tr>
<td>research</td>
<td>To empower participants through research involvement and ideology critique</td>
<td>Outcomes of interventions</td>
<td></td>
<td>Participants as researchers</td>
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<tr>
<td></td>
<td>To develop reflective practice</td>
<td>Participant empowerment</td>
<td></td>
<td>Reflection on practice</td>
</tr>
<tr>
<td></td>
<td>To promote equality democracy</td>
<td>Social democracy and equality</td>
<td></td>
<td>Interventionist – leading to solution of 'real' problems and meeting 'real' needs</td>
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<tr>
<td></td>
<td>To link practice and research</td>
<td>Decision-making</td>
<td></td>
<td>Empowering for participants</td>
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<tr>
<td></td>
<td>To promote collaborative research</td>
<td>Individuals and local situations</td>
<td></td>
<td>Collaborative</td>
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<tr>
<td></td>
<td>To portray, analyse and interpret the uniqueness of real individuals and situations through accessible accounts</td>
<td>Unique instances</td>
<td>In-depth analysis and portrayal</td>
<td>Promoting praxis and equality</td>
</tr>
<tr>
<td></td>
<td>To catch the complexity and situatedness of behaviour</td>
<td>A single case</td>
<td>Interpretive and inferential analysis</td>
<td>Stakeholder research</td>
</tr>
<tr>
<td></td>
<td>To contribute to action and intervention</td>
<td>Bounded phenomena and systems:</td>
<td>Subjective, Descriptive, Analytical, Understanding specific situations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To present and represent reality – to give a sense of 'being there'</td>
<td>• individual, group, roles, organizations, community</td>
<td>Sincerity, Complexity, Particularity</td>
<td></td>
</tr>
<tr>
<td>Case study</td>
<td>To portray, analyse and interpret the uniqueness of real individuals and situations through accessible accounts</td>
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<table>
<thead>
<tr>
<th>Model</th>
<th>Testing and assessment</th>
<th>Purposes</th>
<th>Foci</th>
<th>Key terms</th>
<th>Characteristics</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>To measure achievement and potential</td>
<td>Academic and non-academic, cognitive, affective and psychomotor domains — low-order to high-order</td>
<td>Reliability, Validity, Criterion-referencing, Formative, Summative, Diagnostic, Standardization, Moderation</td>
<td>Material’s designed to provide scores that can be aggregated</td>
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<tr>
<td></td>
<td></td>
<td>To diagnose strengths and weaknesses</td>
<td>Performance, achievement, potential, abilities</td>
<td>Item-response, Domain-referencing, Domain-referencing</td>
<td>Enables individuals and groups to be compared</td>
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<tr>
<td></td>
<td></td>
<td>To assess performance and abilities</td>
<td>Personality characteristics</td>
<td></td>
<td>In-depth diagnosis</td>
</tr>
</tbody>
</table>

SOURCE: BASED ON COHEN MANNION & MORRISON (2007)
# SESSION 3 - RESEARCH ON ESD

## OVERVIEW

### MATRIX FOR PLANNING RESEARCH

<table>
<thead>
<tr>
<th>Orienting Decisions</th>
<th>Question</th>
<th>Decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Who wants the research?</td>
<td>Is the research going to be useful?</td>
<td>Find out the controls over the research which can be exercised by respondents.</td>
</tr>
<tr>
<td></td>
<td>Who might wish to use the research?</td>
<td>What are the scope and audiences of the research.</td>
</tr>
<tr>
<td></td>
<td>Are the data going to be public?</td>
<td>Determine the reporting mechanisms.</td>
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<td></td>
<td>What if different people want different things from the research?</td>
<td></td>
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<tr>
<td></td>
<td>Can people refuse to participate?</td>
<td></td>
</tr>
<tr>
<td>2 Who will receive the research?</td>
<td>Will participants be able to veto the release of parts of the research to specified audiences?</td>
<td>Determine the proposed internal and external audiences of the research.</td>
</tr>
<tr>
<td></td>
<td>Will participants be able to give the research to whomsoever they wish?</td>
<td>Determine the controls over the research which can be exercised by the participants.</td>
</tr>
<tr>
<td></td>
<td>Will participants be told to whom the research will go?</td>
<td>Determine the rights of the participants and the researcher to control the release of the research.</td>
</tr>
<tr>
<td>3 What powers do the recipients of the research have?</td>
<td>What use will be made of the research?</td>
<td>Determine the rights of recipients to do what they wish with the research.</td>
</tr>
<tr>
<td></td>
<td>How might the research be used for or against the participants?</td>
<td>Determine the respondents' rights to protection as a result of the research.</td>
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<tr>
<td></td>
<td>What might happen if the data fall into the 'wrong' hands?</td>
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<tr>
<td></td>
<td>Will participants know in advance what use will and will not be made of the research?</td>
<td></td>
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<tr>
<td>4 What are the time scales of the research?</td>
<td>Is there enough time to do all the research?</td>
<td>Determine the time scales and timing of the research.</td>
</tr>
<tr>
<td></td>
<td>How to decide what to be done within the time scale?</td>
<td></td>
</tr>
<tr>
<td>5 What are the purposes of the research?</td>
<td>What are the formal and hidden agendas here?</td>
<td>Determine all the possible uses of the research.</td>
</tr>
<tr>
<td></td>
<td>Whose purposes are being served by the research?</td>
<td>Determine the powers of the respondents to control the uses made of the research.</td>
</tr>
<tr>
<td></td>
<td>Who decides the purposes of the research?</td>
<td>Decide on the form of reporting and the intended and possible audiences of the research.</td>
</tr>
<tr>
<td></td>
<td>How will different purposes be served in the research?</td>
<td></td>
</tr>
<tr>
<td>6 What are the research questions?</td>
<td>Who decides what the questions will be?</td>
<td>Determine the participants' rights and powers to participate in the planning, form and conduct of the research.</td>
</tr>
<tr>
<td></td>
<td>Do participants have rights to refuse to answer or take part?</td>
<td>Decide the balance of all interests in the research.</td>
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<tr>
<td></td>
<td>Can participants add their own questions?</td>
<td></td>
</tr>
<tr>
<td>7 What must be the focus in order to answer the research questions?</td>
<td>Is sufficient time available to focus on all the necessary aspects of the research?</td>
<td>Determine all the aspects of the research, prioritize them, and agree on the minimum necessary areas of the research.</td>
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<tr>
<td></td>
<td>How will the priority focus be decided?</td>
<td>Determine decision-making powers on the research.</td>
</tr>
<tr>
<td></td>
<td>Who decides the foci?</td>
<td>continued</td>
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</tbody>
</table>
Question 8 What costs are there — human, material, physical, administrative, temporal?

Who controls the release of the report? What protection can be given to participants? Who has the ultimate decision on what data are included? Who decides the ownership of the research? Can participants refuse to answer certain questions? Can the researcher edit out certain responses?

Sub-issues and problems

What support is available for the researcher? What materials are necessary?

Who controls the release of the report? What protections can be given to participants? Will participants be identified and identifiable/traceable? Who has the ultimate decision on what data are included? Who decides the ownership of the research? Can participants refuse to answer certain parts if they wish, or, if they have the option not to take part, must they opt out of everything? Can the researcher edit out certain responses?

Reasearch design and methodology

Research questions

1. What are the specific purposes of the research?

2. Do the specific research questions together cover all the research purposes? Are the research questions sufficiently concrete as to suggest the kinds of answers and data required and the appropriate instrumentation and sampling?

3. What priorities are there?

4. Are the specific research questions demonstrated construct and content validity?

5. How many foci are necessary? Are the foci clearly identifiable and operationalizable?

6. What needs to be the focus of the research in order to answer the research questions?

7. At what point does ownership pass from the researcher to the recipient?

8. What are the specific purposes of the research?

9. What do the research questions require more than one methodology (e.g. triangulation and concurrent validity)?

10. Will there be the opportunity for cross-checking?

11. How will validity and reliability be addressed?

12. Will there be the opportunity for triangulation and concurrent validity?

13. Are there the general research purposes and aims operationalized into specific research questions?

14. Will there be adequate time to go to all the relevant parties?

15. What is the main methodology of the research?

16. How will validity and reliability be addressed?

17. How will reflexivity be addressed?

18. How will reflexivity be recognized?

19. From whom will data be acquired (i.e. sampling)?

Decisions

Cost out the research.

Determine who controls the release of the report.

Determine the rights of the researcher.

Determine how to choose those who may be identified/identifiable in the research.

Determine the ownership of the research at all stages of its progress.

Determine how to decide the options available to the participants.

Decide on the criteria for sampling.

Determine the ownership of the research.

Decide the specific research purposes and write them as concrete questions.

Determine the number of foci of the research questions.

Decide the number of foci of the research questions.

How many methodologies are necessary? Are several methodologies compatible with each other?

Will a single focus/research question require more than one methodology (e.g. for triangulation and concurrent validity)?

Will the depth and breadth required for content validity be feasible within the constraints of the research (e.g. time constraints, instrumentation)?

In what sense are the research questions valid (e.g. construct validity)?

Are the questions fair?

How does the researcher know if people are telling the truth?

What kinds of validity and reliability are to be addressed?

How will the researcher take back the research to respondents for them to check that the interpretations are fair and acceptable?

How will data be gathered consistently over time?

How to ensure that each respondent is given the same opportunity to respond?

How will data be gathered consistently over time?

How to ensure that each respondent is given the same opportunity to respond?

Does the research seek to compare responses and results or simply to illuminate an issue?

Will there be adequate time to go to all the relevant parties?

What kind of sample is required (e.g. probability/non-probability/random/stratified etc.)?

How to achieve a representative sample (if required)?

Sub-issues and problems

How do these purposes derive from the overall aims of the research?

Will some areas of the broad aims be covered, or will the specific research purposes have to be selective?

What priorities are there?

Do the specific research questions together cover all the research purposes?

Are the research questions sufficiently concrete as to suggest the kinds of answers and data required and the appropriate instrumentation and sampling?

How to balance adequate coverage of research purposes with the risk of producing an unwieldy list of sub-questions?

Which they can be processed.

Different types of data and the ways in which they can be processed.

Determine the degree of representativeness of the sample.

Determine how to follow up and not to follow up on the data gathered.

Determine the need to address reflexivity and to make this public.

Determine how to address reflexivity in the research.

Determine the most appropriate type of data for the foci and research questions.

Balance objective and subjective data.

Determine the purposes of collecting different types of data and the ways in which they can be processed.

Determine the minimum and maximum sample.

Determine on the criteria for sampling.

Determine how to follow up and not to follow up on the data gathered.

continued
20 Where else will data be available?

Sub-issues and problems
- What documents and other written sources of data can be used?
- How to access and use confidential material?
- What will be the positive or negative effects on individuals of using certain documents?

What methods of data gathering are available and appropriate to yield data to answer the research questions?
- What methods of data gathering will be used?
- How to construct interview schedules/questionnaires/test/observation schedules?
- What will be the effects of observing participants?
- How many methods should be used (e.g., to ensure reliability and validity)?
- Is it necessary or desirable to use more than one method of data collection on the same issue?
- Will many methods yield more reliable data?
- Will some methods be unsuitable for some people or for some issues?

Can different people plan and carry out different parts of the research?

Decisions
- Determine the necessary/desirable/possible documentary sources.
- Decide access and publication rights and protection of sensitive data.

Decide which data collection instruments to gather data to answer the research questions.
- Pilot the instruments and refine them subsequently.
- Decide the strengths and weaknesses of different data collection instruments in the short and long term.
- Decide which methods are most suitable for which issues.
- Decide which issues will require more than one data collection instrument.
- Decide whether the same data collection methods will be used with all the participants.

Decide who will carry out the data collection, processing and reporting.

21 How will the data be gathered (i.e., instrumentation)?

22 Who will undertake the research?

Data analysis

Question
23 How will the data be analysed?

Sub-issues and problems
- Are the data to be processed numerically or verbally?
- What computer packages are available to assist data processing and analysis?
- What statistical tests will be needed?
- How to perform a content analysis of word data?
- How to summarize and present word data?
- How to process all the different responses to open-ended questions?
- Will the data be presented person by person, issue by issue, aggregated to groups, or a combination of these?
- Does the research seek to make generalizations?
- Who will minimise the data?

Decisions
- Determine the necessary/desirable/possible documentary sources.
- Decide access and publication rights and protection of sensitive data.

Decide the most appropriate data collection instruments to gather data to answer the research questions.
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OVERVIEW

SEQUENCING RESEARCH IN EDUCATION

Stage 1
Identify the purposes of the research

What are the purposes of the research?

Who wants the research?
Who will receive the research?
What powers do the recipients of the research have?
What are the timescales of the research?
What costs are there - human, physical, material, administrative, temporal?
Who owns the research?
At what point does the ownership pass from the respondent to the researcher and from the researcher to the recipients?
What are the powers of the researcher?
What are the main objectives of the research?
What are the ethics of the research?

Stage 2
Identify and give priority to the constraints under which the research will take place

What are the specific purposes of the research?
What are the research questions?
What needs to be the focus of the research in order to answer the research questions?
What is the main methodology of the research?
How will validity and reliability be addressed?
How will reflexivity be addressed?
What kinds of data are required?
From whom will data be acquired (sampling)?
Where else will data be available?
How will the data be gathered (instrumentation)?
Who will undertake the research?
How will the data be processed and analysed?
How to verify and validate the data and their interpretation?
How to write up and report the research?
How to present the results in written and non-verbal forms?
To whom to report?
When to report?

Stage 3
Plan the possibilities for the research within these constraints

Stage 4
Decide the research design

Achieving coherence and practicability in the design.

SOURCE: BASED ON COHEN MANNION&MORRISON (2007)