

ECAD7004: Researching the Learning: what, how and why am I teaching?

Session 7



Observation

Observation Defined



- ▶ Observation can be defined as the systematic process of recording the behavioral patterns of people, objects and occurrences.
- ▶ Observations supply data.

We are experienced observers

- ▶ We observe all the time in everyday life.
- ▶ These observations form ‘folk theories’, e.g. of physical and social phenomena, people, patterns, associations etc.
- ▶ Bruner (1990) suggests that these provide a system of connected assumptions and beliefs through which we make sense of the world.
- ▶ Dewey (1991) suggests that these may lead to habitual, stereotypical thinking - ‘lazy’ thinking.
- ▶ So - as researchers we need to improve our observational skills.

Observation in research

* Purpose and benefits of observation as a data collection method

- ▶ It is part of a teacher's role, and you have experience already
- ▶ You can see things in their natural context
- ▶ You can see things that may escape conscious awareness
- ▶ You can learn about things people may be unwilling to talk about
- ▶ It can be inconspicuous and part of normal classroom routine
- ▶ It can be the least intrusive of all methods
- ▶ You can be creative - flexibility to yield insight into new realities or new ways of looking at old realities

*What can be observed?

What can be observed?

- ▶ Human behaviour and physical actions
- ▶ Verbal behaviour
- ▶ Expressive behaviour
- ▶ Spatial relations and locations
- ▶ Temporal patterns
- ▶ Physical objects
- ▶ Verbal or pictorial records

*How can we observe?

Observational Situations – How we can observe

Situation	Example
People watching people	Observers stationed in supermarkets watch consumers select frozen Mexican dinners. The purpose is to see how much comparison shopping people do at the point of purchase.
People watching phenomena	Observer stationed at an intersection counts traffic moving in various directions.
Machines watching people	Move or videotape cameras record behavior as in people-watching-people example.
Machines watching phenomena	Traffic-counting machines monitor traffic flow.

* Types of observation

Structured



Unstructured

Looking for

Sometimes we have something specific we want to observe – leadership skills; level of participation etc.

We use a structured, preset guide of what to observe or a checklist.

Looking at

Sometimes we want to see what is naturally occurring or exists without predetermined ideas. We use have an open-ended approach to observation and record all that we observe.

Observing what does not happen may be as important as observing what does happen.

Your role in observation

- ▶ Non-participant observation. Researcher is not part of the activity taking place, but simply observes. May be identified as observer/research.
- ▶ Participant observer. Researcher takes part in community, organization, or activity. Researcher attempts to learn what it is like to be part of the community, organization, or participate in the activity.
- ▶ In your study you will be a non-participant observer, but you will be **overt** - a 'fly-on-the-wall'. How will you deal with interested children?

Variations in Approaches to Observation

Role of the Observer			
Full-participant observation	Partial participation	Onlooker; observer is an outsider	
How the Observer Is Portrayed to Others			
Participants know that observations are being made and they know who is making them.	Some but not all of the participants know the observer.	Participants do not know that observations are being made or that there is someone observing them.	
How the Purpose of the Observation Is Portrayed to Others			
The purpose of the observation is fully explained to all involved.	The purpose of the observation is explained to some of the participants.	No explanation is given to any of the participants.	False explanations are given; participants are deceived about the purpose of the observation.
Duration of the Observations			
A single observation of limited duration (e.g., 30 minutes).		Multiple observations; long-term duration (e.g., months, even years).	
Focus of the Observations			
Narrow focus: Only a single element or characteristic is observed.		Broad focus: Holistic view of the activity or characteristic being observed and all of its elements is sought.	

*Thinking critically

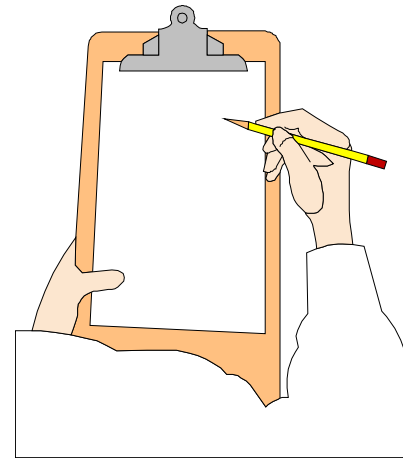
Advantages of Observation Research

- ▶ Observation research provides the researcher the opportunity to watch what people actually do rather than relying on reports of what they say they do.
- ▶ This approach can avoid much of the biasing factors caused by the interviewer and question structure associated with the survey approach.

Disadvantages

- ▶ Only behaviour and physical personal characteristics can usually be examined. The researcher does not learn about motives, attitudes, intentions, or feelings.
- ▶ Observation research can be time consuming and costly if the observed behavior occurs rather infrequently.
- ▶ Interpretation of data may be a problem
- ▶ Possible invasion of privacy

Limitations - the observer...



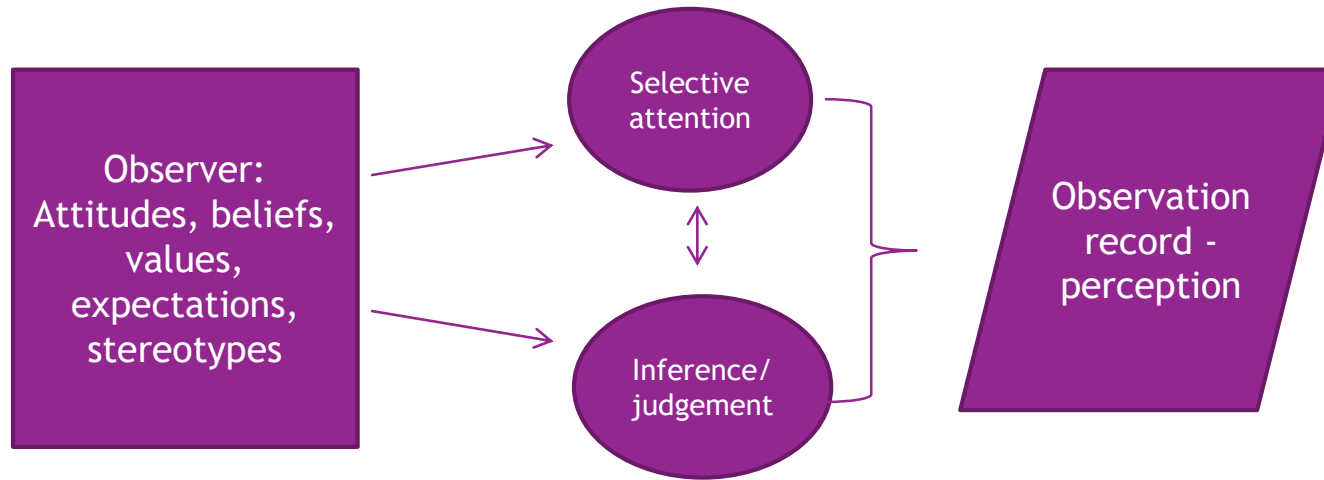
* Observer Effect

- ▶ The presence of an observer can have a considerable effect on the behaviour of those being observed.
- ▶ Explaining to a child what you are doing may affect their behaviour (Hawthorne effect, Roethlisberger and Dickson, 1939 - the mere presence of an observer increased productivity at the Hawthorne electrical works, Chicago).
- ▶ Behaviour or 'act'?
- ▶ Ethical dilemmas

* Observer Bias

- ▶ Certain attitudes may bias what you “see”
- ▶ Observer expectations
- ▶ Observer emotions
- ▶ Dissonance theory - strive towards consistency in what believe and what see - selective e.g. Festinger, 1957
- ▶ Congruity theory - if you perceive someone as good you attend to characteristics that confirm your initial perception e.g. Osgood and Tannenbaum, 1955
- ▶ Impression formation theory - some information is more important, and the order information is received in is important e.g. Ash, 1952

*Interpretation



* How well do you observe?

- ▶ Take 15 seconds and look at the following picture.
- ▶ Then, write down everything you observed. Come back to the photo and see what you missed (or thought was there and isn't!).



The background features abstract, overlapping geometric shapes in various shades of purple and magenta, primarily concentrated on the right side of the frame. The shapes include triangles and polygons of different sizes and opacities, creating a layered, modern aesthetic. The left side of the image is mostly white, providing a clean space for the text.

* How well do you observe?



Checking in...

Answer TRUE or FALSE to each of the following:

- ▶ Observation involves “seeing” and “listening”
- ▶ People may behave differently when they know they are being observed so it is better not to tell them
- ▶ Structured observations provide more accurate and useful information
- ▶ As long as you see it, it doesn’t matter if you record what you saw
- ▶ You, as someone who “knows” the participants, are best suited to conduct the observations
- ▶ The same principles of sampling apply to observation as to other forms of data collection



Observation

John Dewey said:

‘Observation alone is not enough. We have to understand the significance of what we see, hear, and touch. This significance consists of the consequences that will result when what is seen is acted upon’ (1938:68).

Observation

You could focus on:

- ▶ the purposes of communicating e.g. to instruct, persuade, encourage, transmit information;
- ▶ possible barriers to effective communication e.g. linguistic, environmental, physical and how these are addressed;
- ▶ non-verbal means of communication e.g. facial expressions, movement of teacher and pupils.

Observation (contd.)

- ▶ how speaking and listening skills are promoted
- ▶ explanations
- ▶ communication between pupils
- ▶ Review of previous learning
- ▶ Questioning skills, e.g. types of questions, pupil responses, wait time

Things to consider during observation

- ▶ Observation produces a strong emotional response
- ▶ Learning is invisible
- ▶ Making links that don't exist
- ▶ We assume that if you can do it you can spot it
- ▶ Inattentional blindness

Observation within lesson study...

- ▶ <https://www.youtube.com/watch?v=Vv0HJ-ftOAU&t=67s>

- the application of research results to cases or situations beyond those examined in the study

Generalisation

- the degree to which an assessment tool produces stable and consistent results.

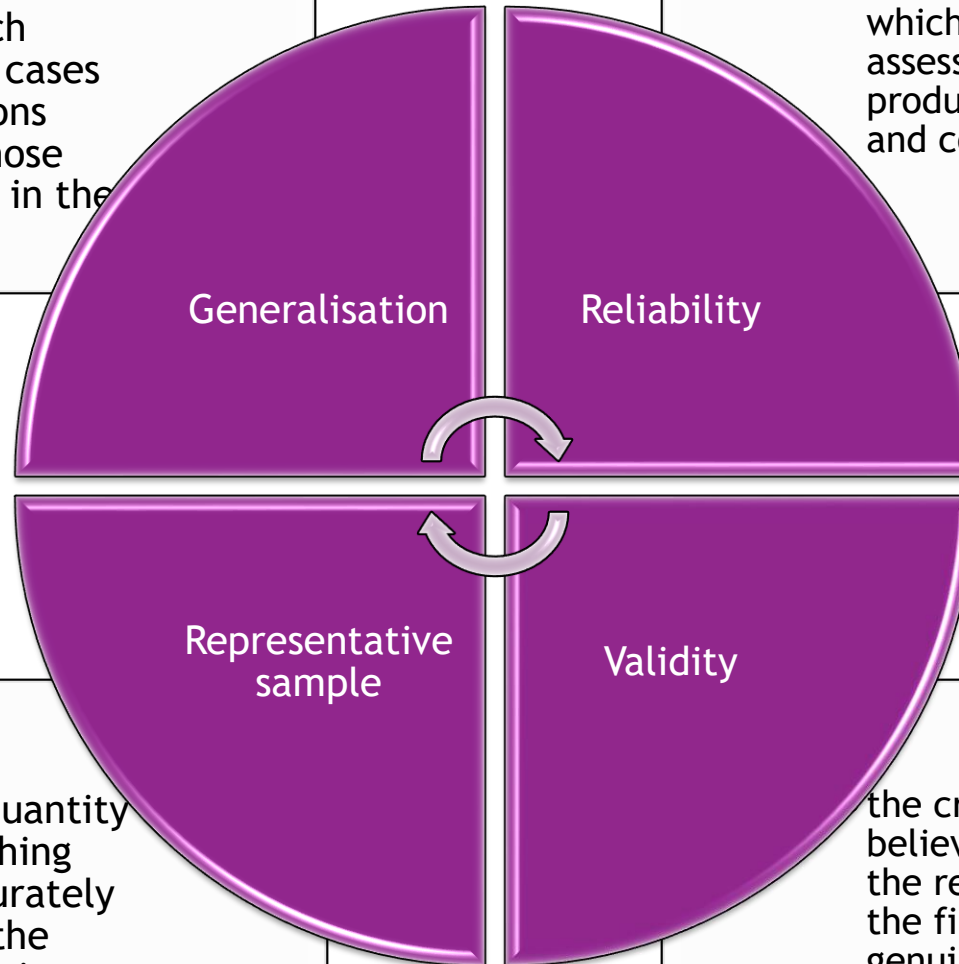
Reliability

- a small quantity of something that accurately reflects the larger entity

Representative sample

- the credibility or believability of the research. Are the findings genuine?

Validity



Is observation...

- ▶ Reliable?
- ▶ Valid?
- ▶ To what extent does your observation enable you to demonstrate a representative sample?
- ▶ Can you generalise your results?

Ethical considerations

- ▶ Implications for power/ dominance in the voices being heard
- ▶ Ensure that the learner's voice is heard, valued and significant
- ▶ Assent and consent
- ▶ Anonymity, confidentiality, non-intrusion, honesty, respect, awareness.

Today's Task

Observation schedules

You will be required to create an **observation schedule** for use during your lessons.

Work with your partner to:

- ▶ Compare and contrast
- ▶ Note positives and negatives

* Training - preparation / piloting may be necessary

- ▶ To learn what to look for
- ▶ To learn how to record observations
- ▶ To practice
- ▶ To ensure that observations across observers are consistent: observers use the same methods, **rate an observation in same way**

Leuven Scale

<https://www.bing.com/videos/search?q=leuven+scales+&&view=detail&mid=B0A37FA01B7908CAB633B0A37FA01B7908CAB633&&FORM=VRDGAR>

► <https://www.youtube.com/watch?v=WwUCufOeOdE>

NB Your observation schedule **could** include the Leuven Scale if this is suitable for your needs (but it does not have to)

Task

You need to:

- ▶ Prepare an observation schedule that fits your needs.

Consider:

- ▶ What you need the observer to observe in order to answer your research question;
- ▶ How the observer might best make these observations;
- ▶ The observation schedule structure that enables the observer to note their observations;
- ▶ Whether or not you need some kind of scale to follow;
- ▶ The number of boxes that would be reasonable for the observer to fill.

Post-session reading

You need to undertake some reading about:

- Observation

Suggested reading:

- Cohen, L., Manion, L. & Morrison, K. (2018) Research Methods in Education, 8th edition. Oxford: Routledge. (pp542-562)

(previous editions are available, e.g. 2011; 6th edition is available online:

<https://islmblogblog.files.wordpress.com/2016/05/rme-edu-helpline-blogspot-com.pdf> (Google Cohen, Manion & Morrison 6th edition)

- Bell, J. & Waters, S. (2018) Doing your Research Project, 7th edition. London: Open University Press. (pp242-256)

