

Clinical Observer Training

Session 2

Why are high-quality data important?



Session Objectives

- Describe the terms “reliability” and “validity.”
- Explain why collecting quality data is important.
- Justify the purpose of collecting assessment (observational) data.
- Justify the purpose of clinical observation.
- Describe why collecting assessment (observational) data is important and the impact of good data.

Competency in Observation

#1 Goal:

Observations are
valid and reliable!

What is reliability?

How do you use the word “reliable” in everyday language?

- I have a **reliable** car.
- The news came from a **reliable** source.

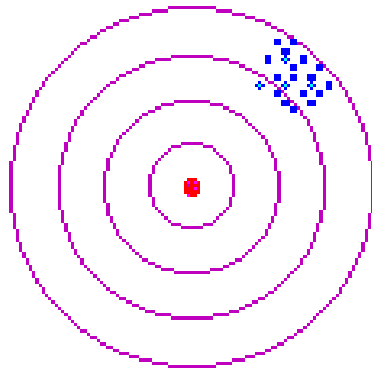
Reliability

- Repeatability
- Consistency

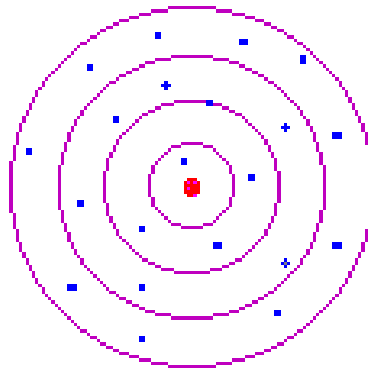
Validity

- Measures what it is supposed to measure
- Accurately reflects or assesses the specific concept being measured

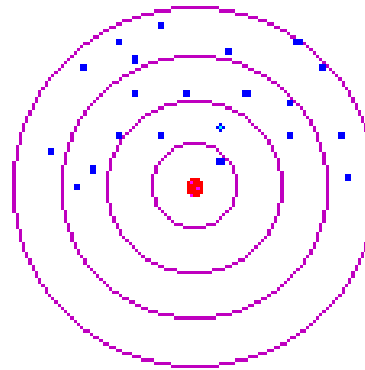
Inter-Relatedness of Validity and Reliability



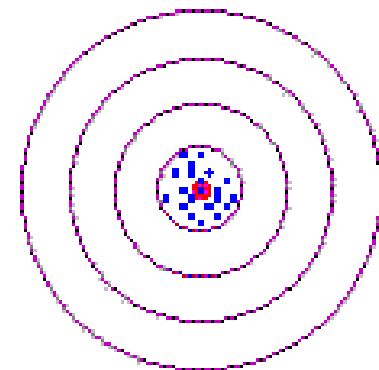
**Reliable
Not Valid**



**Valid
Not Reliable**



**Neither Reliable
Nor Valid**



**Both Reliable
And Valid**

Modified from: Trochim, William M. The Research Methods Knowledge Base, 2nd Edition. Internet WWW page, at URL: <http://www.socialresearchmethods.net/kb/> (version current as of October 20, 2006).

Inter-Rater/Inter-Observer Reliability

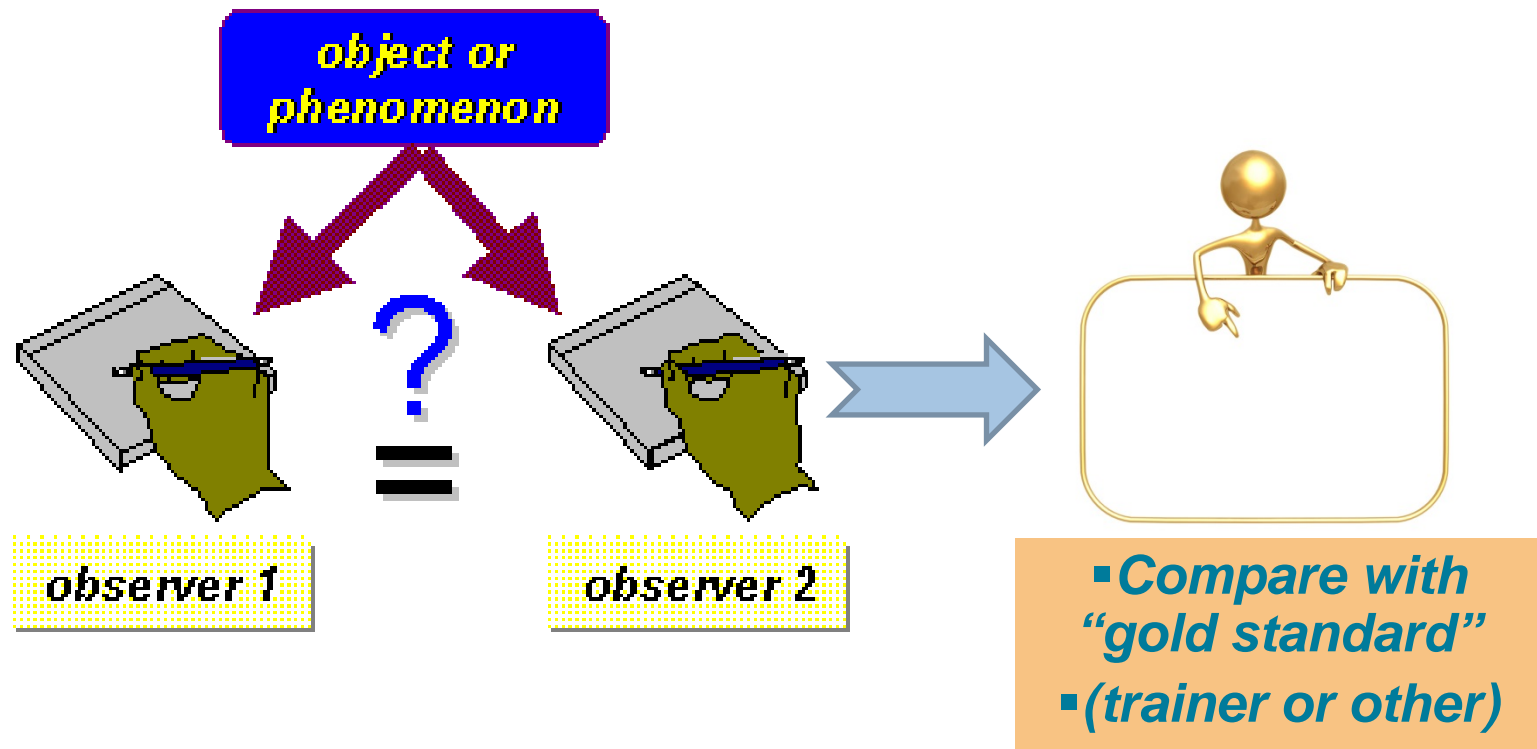


Figure citation: Trochim, William M. The Research Methods Knowledge Base, 2nd Edition. Internet WWW page, at URL: <http://www.socialresearchmethods.net/kb/> (version current as of October 20, 2006).

Achieving and Maintaining Adequate Inter-Rater Reliability

- Train observers.
- Ensure tools have criteria that are followed by observers.
- Calculate inter-rater reliability and calibrate observers.
- Retest inter-rater reliability.
- Compare observer scores with “gold standard” to assess validity as well.

Assessing Inter-Rater Reliability

Measuring the accuracy and consistency of ratings across clinical observers

Goal: 80% agreement

Calculating Inter-Rater Reliability

Observed Tasks for Labor and Delivery	Observer 1	Observer 2	Trainer/ Gold Standard
Asks about any danger signs in current pregnancy	0	1	1
Prepares uterotonic before delivery	0	0	0
Supports perineum as baby's head is delivered	0	0	0
Gives 10 IU oxytocin IM within 1 minute after the baby is born, before the placenta is expelled	1	1	0
Assesses completeness of the placenta and membranes	0	0	0
Total incorrect compared to gold standard	2	1	0
Total correct compared to gold standard	3/5 (60%)	4/5 (80%)	5 (100%)

**The quality of the data
determines the
usefulness of the
results.**

Why are clinical observations important?



When is clinical observation useful?

- When you want direct information.
- When you are trying to understand an ongoing behavior, a process, an unfolding situation, or an event.
- When there is physical evidence, products, or outcomes that can be readily seen.
- When written or other data-collection procedures seem inappropriate.

Data Quality Activities

- Divide into groups.
- Complete your assigned activity; you have 20 minutes to work.
- Each group will have 5 minutes to share one or two examples you discussed in your activity.

Thank you!

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