

TOP TEN LIST

TEN BEST WAYS TO MEASURE CONSTRUCTS IN HEALTH RESEARCH BADLY

With apologies to David Letterman, and thanks for editorial assistance to Elizabeth Kirby and for their insights to the students in PHC 7935 Advanced Research and Evaluation Methods, University of South Florida, Summer 2011.

R.S. Kirby, July 2011

Number 10

No Theory, No Problem

You are the inventor of all the new ideas. But even inventors need handbooks. Just follow this handy guide:

1. Don't examine previous uses of the construct you wish to apply.

2. Define the construct yourself.

3. Focus on how the construct appears on the surface – after all, face validity is in the 'eye of the beholder.'

Number 9

I Shot the Sheriff, But I Did Not Shoot the Deputy

Reliability is of paramount importance. In fact, validity in its many forms is highly over-rated, and can be ignored so long as accuracy and completeness of data collection are achieved.

So long as both the Sheriff and his deputies are targeted, all is well.



Number 8

Like Gibraltar, Solid as a Rock

Once you have a valid and reliable operational measure of the theoretical construct, it therefore follows that it is valid for use in any subsequent study, regardless of the study design.

Operational definitions should always be static, and stand the test of time.

Number 7

Kaleidoscope, Prism, Snowflake or Mirror

Despite the complexity of the underlying theoretical construct, measure only one facet or dimension.

Then, use a one-size-fits-all mentality in applying the operational measure to your research design.



Number 6

There's Gold in Them Thar Hills

Operational measures needn't have a theoretical basis. In fact, any variable for which data were collected can and should be used in any empirical analyses you wish to conduct.

Exploratory data analysis is necessary only to determine which statistics to use, not to examine the quality of measurement.

Number 5

To Boldly Go, Where Many Have Gone Before

Create your own scale or index, as no one has ever thought to operationalize the construct of interest. Test it on the same dataset you then use to conduct your study.

If your new instrument is valid, it follows that each item in the instrument is also valid, and can be used separately in any subsequent analyses.

Number 4

If the Shoe Fits . . .

Reading level, cultural relevance, and question clarity have no bearing on the reliability or validity of your measurement instruments.

After all, all Spanish speaking respondents can read at the high school graduate level.



Number 3

Even Precious Stones Can Have Fatal Flaws

Use an unclear, arbitrary definition of the theoretical construct. Journal editors will be impressed with your creativeness, and may give you pointers on how to reframe your research in the event you have an opportunity to redo the study.



Number 2

Test Once, Use Mostly

Don't assess the psychometric properties of the items in your new scale. Individual components of previously validated scales can be borrowed and used, without further need to test their reliability and validity.

If for some reason it becomes necessary, the new scale need only be tested in one small, convenience sample.

Number 1

It Doesn't Really Matter

Don't be culturally competent, don't know your study population, and bring any and all researcher biases to the design and implementation of your study.

