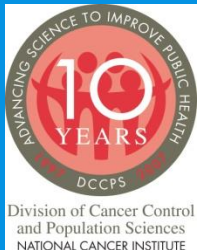


Discussion: TReND 2010 – *Weaving a Methodological Tapestry*

Gordon Willis, Ph.D.
Applied Research Program
Division of Cancer Control and Population Sciences
National Cancer Institute
Willisg@mail.nih.gov

October 25, 2010



This session emphasizes methods development as Job #1

- A. Lincoln: *“If I had eight hours to chop down a tree, I'd spend six hours sharpening my ax”*
- Evidently, lots of TReND research depends on *self-report* of behavior/attitudes
- Possibility of measurement error looms large-

1) Pre-observation errors:

Are we asking the right questions, using the right measures?

2) Errors of non-observation

- Coverage/Sampling Error
- Non-response error

3) Errors of Observation:

- Response error

4) Post-observation errors:

Processing/analysis/interpretation

1) Pre-observation: What are we measuring?

Cubbin: Measure needs to be-

- Of the 'correct' construct
- Practical to administer
- Applicable cross-culturally

- ❑ So – TReND requires measure of 'wealth', not 'income'
- ❑ 'Reductive' in nature – pare down more extensive measures
- ❑ Interesting, persistent pattern... Applied research bootstraps itself by creating its own measures
 - Positive feature – custom-made measures
 - Negative feature - spawns variety of measures of same construct
 - Would be nice to keep these new measure around –
 - *harmonization of measures*
 - *interoperability of data systems*

2) Error of Non-Observation: Who are we not finding? ('frame error')

- **Big problem for cross-cultural/multicultural research**
- **Buchting: Hard-to-reach (H2R) groups pose challenges to population surveys**
 - **LGBT of Color**
 - **Migrant Farm Workers**
 - **Others...**

H2R may be defined in terms of demographics, sub-demographics, but also: self-concept (LGBT), employment status (Farm Workers), residential status (Migrant, homeless), etc.

We may need a model or compendium of H2R variables

- **Upcoming conference on H2R to be held Nov, 2012, New Orleans ->**

October 31 – November 3, 2012



New Orleans, Louisiana

PHOTO: COURTESY OF ALEX DEMYAN AND NEWORLEANSONLINE.COM

Welcome

The conference will bring together survey methodologists, sociologists, statisticians, demographers, ethnographers, policy analysts and other professionals from around the world to present new and innovative concepts and techniques for surveying hard to reach populations. The conference will address both the statistical and survey design aspects of including hard to reach groups. Researchers will report findings from censuses and surveys and other research related to the identification, definition, measurement, and methodologies for surveying and enumerating undercounted populations. The conference will serve as a venue to network, and to share research and experiments designed to advance our understanding of the topic.

For further information contact: H2R2012@amstat.org.



Key Dates

February 2011

Call for Invited Papers

April 2011

Call for Contributed Papers

October 31 - November 3, 2012

H2R 2012

(Draft Announcement)

3) Error of Non-Observation: Who is not responding? (non-response bias)

- **Alexander talk: Is it “*Hard to reach or failure to connect?*”**
- **Non-response is a big issue in survey research**
- **Groves, others: (Non) Response rate is a poor predictor of non-response bias**
- **But – *Differential* non-response (across groups) is still very worrisome**
 - **Response rates for low-income minority groups are lower in RDD**
- **So, what can we do to ‘connect’ in this sense?**
 - **Incentives (\$, gift cards, certificates)**
 - **Enhance perceived legitimacy of survey/study**
- **We focus a lot on incentives – but legitimacy may be important**

4) Errors of Observation: Our measures produce *Response Error*

- **I have found this to be especially problematic cross-culturally:**
- **NCI/Westat TCG model:**
 - 1) **Translation:** (a) Error; (b) Difficulty
 - 2) **Cultural** adaptation failure
 - 3) **Generic** problems of questionnaire design

4) Errors of Observation: Our measures produce *Response Error*

- I have found this to be especially problematic cross-culturally:
- NCI/Westat TCG model:
 - 1) Translation: (a) Error-

Translation failure...



Source:

http://news.bbc.co.uk/2/hi/uk_news/wales/7702913.stm

4) Errors of Observation: Our measures produce *Response Error*

- **I have found this to be especially problematic cross-culturally:**
- **NCI/Westat TCG model:**
 - 1) **Translation:** (a) Error-
 - *“In your entire life, have you smoked 100 or more cigarettes?”*
 - Asian languages: “In your entire life” meant “from birth to death”
 - This could be addressed: “Up to now...”

(From: Willis, G., Lawrence, D., Hartman, A., Kudela, M., Levin, K., & Forsyth, B., 2008)

4) Errors of Observation: Our measures produce *Response Error*

- **I have found this to be especially problematic cross-culturally:**
- **NCI/Westat TCG model:**
 - 1) Translation: (b) Difficulty-
 - *“In your opinion, how easy is it for minors to buy cigarettes and other tobacco products in your community?”*
 - The notion of “community” is VERY difficult to translate in a way that exhibits cross-cultural comparability

(From: Willis, G., Lawrence, D., Hartman, A., Kudela, M., Levin, K., & Forsyth, B., 2008)

4) Errors of Observation: Our measures produce *Response Error*

- **I have found this to be especially problematic cross-culturally:**
- **NCI/Westat TCG model:**
 - 2) Cultural adaptation:**
 - Question on whether you have ever switched from a stronger to a lighter cigarette
 - Was found to pose difficulties for respondents who had smoked Korean or Chinese brands that are unlabelled with respect to tar or nicotine content.

(From: Willis, G., Lawrence, D., Hartman, A., Kudela, M., Levin, K., & Forsyth, B., 2008)

4) Errors of Observation: Our measures produce *Response Error*

- I have found this to be especially problematic cross-culturally:
- NCI/Westat TCG model:
 - 3) Generic problems:
 - “How soon after you wake up do you typically smoke your first cigarette of the day?”
 - What we want: “28.75 minutes”
 - What we get: “As soon as I can get my eyes open”
 - Happens with multiple cultural/linguistic groups

(From: Willis, G., Lawrence, D., Hartman, A., Kudela, M., Levin, K., & Forsyth, B., 2008)

4) Errors of Observation: What can we do....?!

- **Flaherty/Buchting – Cognitive testing useful** 😊
 - To study cross-cultural comparability of items
 - To assess potential patterns of behavior (e.g., to detect patterns of smoking Flaherty describes)
- **Mixed methods research (Buchting):**
 - Combine qualitative and quantitative (LCA, psychometrics: IRT, DIF)
 - Reeve, et al. (in press) – compare results of cog testing, IRT/DIF in study of racial/ethnic discrimination
 - DIF showed *where* there are differences
 - Cog Testing indicated *why* there are differences