



Ensuring Reliable Data across Countries, Languages and Cultures

Nicole Koster

**PT, MSc (Health Sciences), PhD
student**

Ecare Services

IT company: web based software consultancy, research and development and telecom for healthcare organizations

- 1.Home care
- 2.Home health aides
- 3.Nursing homes
- 4.Mother and infant care
- 5.Care for mentally handicapped
- 6.'Youth care' (0-18)

Ensuring Reliable Data

Reliable:

- consistently good in quality or performance; able to be trusted
- something that can be trusted or believed because it works well in the way you expect (Oxford and Cambridge dictionaries)

1. Translation -> different language

2. Validity

3. Implementation

Goal:

Prevent incorrect definition and measurement of constructs

Ensuring reliable Data

Are the constructs interpreted, used and measured the same way across

- countries?
- languages?
- cultures?

	Country	Language	Culture	example
1	same	same	same	Holland, Dutch, elderly, homecare
2	same	same	-	China, Chinese, rural and urban
3	same	-	same	US, ENG & SPA, homeless
4	-	-	-	Canada & US, ENG & SPA, african american, & hispanic
5	etc

1. Translation

Translation is the most common method of preparing instruments for cross-cultural research and has pitfalls that threaten **validity** (Sperber 2004)

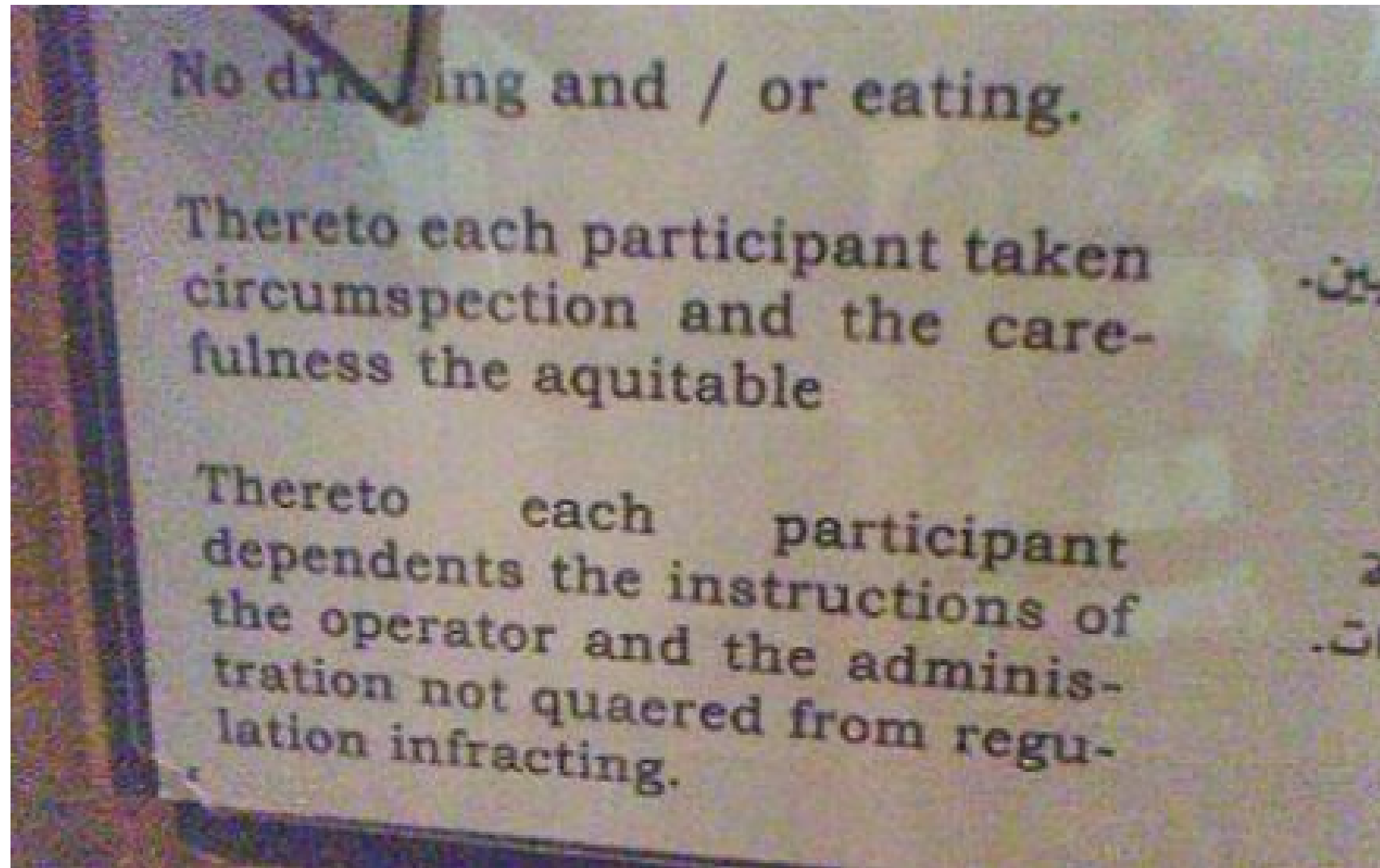
Just a few problems when translating:

- machine translation -> linguistic problems
- interpreters -> not familiar with sector / topic specific meaning
- topic experts -> not familiar with the original ENG term / meaning

Small translating mistake, big difference



Or completely lost in translation...



Omaha System Web Site

- The number and types of international users are increasing; some are using software and others are using paper-and-pen records. The Omaha System was translated into Danish about 1985. Since then, translations include Dutch, Japanese, Chinese, Swedish, Korean, Slovene, Spanish, Turkish, German, Estonian, and Thai.
- Global adoption of the Omaha System has created a growing need for information in languages in addition to English. In this section of the Web site, informational features about the Omaha System are provided in Spanish, Chinese, and English. In addition, articles, chapters, and books have been published about the Omaha System in Chinese, Dutch, Japanese, and Korean languages; they are identified by a symbol (◆) in the References section of the Web site.

What we did: stepped practical approach

1. Translation by an agency of interpreters
2. Evaluation of translation by experts
 - health scientist 1, ENG and NL
 - health scientist 2, ENG and NL
 - > first improvements with nurse 1 and expert US
 - nurse 1, NL only
 - > marking of terms, suggesting improvements
3. Translate suggestions back to ENG
 - Dutch native English speaker, given NL only.
4. Compare result to original ENG
 - health scientist 2, ENG and NL
 - > same? Accept suggestion
 - > different? New suggestion

2. Validity

Are concepts that comprise an instrument transferable across languages and cultures?

- structure replicable in different cultures by confirmatory factor analysis (CFA)
- internal reliability of scales in cultures.
- causes for less internal reliability: cultural differences or a response bias to negatively keyed items
- determining validity coefficients: level compared to original
- tendency to work less efficiently in developing countries
- effect of gender, age and educational level on the validity

What we did; practical considerations

Nature of the Omaha System terminology:

- universal traits transcending cultural differences
- limited issues of phrase structure
- not an instrument, developed to measure 1 concept

Consider:

- the architecture as validated
- the constructs (terms and their nature) as validated

A good translation is then the most important issue.

3. Implementation determines reliability

- Incentives and goals for use (organizational)
- Instructions to use each part of the Omaha System
- Instructions to use the software
- Motivation to use (individual)

When will I most accurately define problems, select interventions, measure outcomes?

When I support the goal, have time to do so, was taught how to do so and when I have an IT system that facilitates me to do so?...

Or is there a model?

What we did

Use valid tool for the study of the initial adoption and eventual diffusion of IT innovations within organizations (Moore et al. 1991)

Based on Rogers model of diffusion of innovations (Rogers, 1995):
87% of the degree of adoption is determined by certain factors:

- Relative advantage
- Ease of use
- Compatibility
- Voluntariness
- Image
- Trialability

What we did

develop IT with end-users

variety in test teams, educational levels and ages

question test teams on constructs (Rogers)

tablet proof software

provide with iPads with SIM-cards

no elaborate protocols but 'Vuistregels'

E-Learning

social media (nurses forum)

support team

So... what route to take?



Translation; requirements / future

Karen Martin (martinks@tconl.com) provides consultation on translations

Some ideas about collaborating:

Store translations in an accessible way; web application

Public domain as in omahasystem.org

Collect reports and suggestions from users

Keep track of (rationale for) suggested changes

Determine 'release date' / x- year cycles relating to English editions

Communicate updates pro-actively

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Translation; requirements / future

Share knowledge on process of other translations; Spanish, Chinese

Determine the best method(-s) to translate the Omaha System

- Translating Questionnaires and Inventories Using a Cross-Cultural Translation Technique (Banville et al. 2000)
- Criteria for terms and definitions (Martin, 2005, Appendix D)

Determine the best method(-s) to evaluate translations; was the translation adequate?

Develop practical guide for translation process

Implementation; requirements / future

Transparency on:

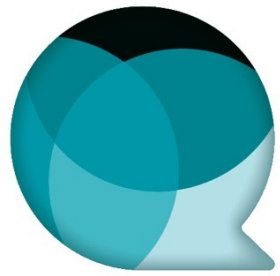
- rules, instructions
- software system used
- content of pathways used

Share E-Learning content

Practice case studies in international user group

And much more.....

Suggestions?



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Feel free to contact us
for any questions

nicole@ecare.nl