Improving Cross-national/cultural Comparability
Using the Total Survey Error Paradigm

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Figure 1. Total Survey Error: Total Error
Figure 2: TSE
### Figure 3A: Categorizing Nonresponse Error

Level of Nonresponse

<table>
<thead>
<tr>
<th>Reason for Nonresponse</th>
<th>Unit</th>
<th>Supplement/SAQ</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refusal</td>
<td>Refuse survey</td>
<td>Refuse supp./SAQ</td>
<td>Refuse question</td>
</tr>
<tr>
<td>Unavailable</td>
<td>Noncontact</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Other</td>
<td>Illness, Lost case</td>
<td>Illiterate, Poor eyesight</td>
<td>Cognitively unable</td>
</tr>
</tbody>
</table>
### Figure 3B: Typology of Surveys by Medium

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual</td>
<td>Null</td>
<td>Internet CASI</td>
<td>Null</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CASI</td>
<td>Postal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classroom handout</td>
</tr>
<tr>
<td>Audio</td>
<td>CAPI</td>
<td>Automated voice+</td>
<td>PAPI</td>
</tr>
<tr>
<td></td>
<td>CATI</td>
<td>voice recognition</td>
<td>TI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Null</td>
</tr>
<tr>
<td>Mixed</td>
<td>CAPI+show cards</td>
<td>Automated voice+</td>
<td>PAPI+show cards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>touchtone response</td>
<td>TI+show cards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACASI</td>
<td>TI+diary</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PAPI+SAQ</td>
</tr>
</tbody>
</table>

ACASI = audio computer-assisted self-interview  
CAPI = computer-assisted personal interview  
CASI = computer-assisted self-interview  
CATI = computer-assisted telephone interview  
Null = rare or non-existent  
PAPI = paper and pencil interview  
SAQ = self-administered questionnaire  
TI = telephone interview
CHART 5.4
Essential Communications Linkages for a Modern Force Multiplication Scheme
Interactions with TSE

A. Mode → Respondent → TSE

B. Interviewer → Non-response → TSE

C. Setting → Respondent → TSE

D. Content → Non-response → TSE

E. Interviewer (Race) → Respondent (Race) → TSE
TSE and Multiple Surveys

Times Series

Panel Waves

Comparative

Cross-National/Cross-Cultural

Other
Figure 4: TSE and Multiple Surveys
Uses of TSE in Comparative Perspective

The TSE paradigm is a valuable approach for comparative studies for several reasons.

First, it is a blueprint for designing studies. Each component of error can be considered with the object of minimizing comparison error.

Second, it is a guide for evaluating error after the surveys have been conducted. One can go through each component and assess the level and comparability of the error structures.

Third, it can set a methodological research agenda for study error and for the design of experiments and other studies to fulfill that agenda.

Fourth, it goes beyond examining the separate components of error and provides a framework for the combining of the individual error components into their overall sum.

Fifth, by considering error as an interaction across surveys, it establishes the basis for a statistical model for the handling of error across surveys.
Figure 4: TSE and Multiple Surveys
Combining TSE with Traditional Functional Equivalence Approach

- Focusing on most important cases of comparison error
- Focusing on comparability
- Etic vs. Emic
- Comparability of scales