Effects of Survey Administration Modes on Results in Cross-National Research: The Case of the International Social Survey Programme (ISSP)

Teresa Żmijewska-Jędrzejczyk

Polish Academy of Sciences,
University of Warsaw

Marcin W. Zieliński

Polish Academy of Sciences,
University of Warsaw

Agenda

- Mode effects
  - → why still important?
  - → why the case of ISSP
- Data characteristic
- Model of the analysis
- Results
- Conclusions
- Discussion

CSDI

Effects of Survey Administration Modes. Why this topic?

- Increasing number of cross-national studies

  - different cultures and differences in the demographic

  - the application of different modes or mixing modes may cause a variety of the so-called Mode Effects

- In studies such as the ESS, each new round opens new problems which might upset the required quality of data

  - changes in the surveyed populations: (1) cultural changes (2) demographic changes: in-country mobility, migrations

  - legislative changes at the country level
      In Poland: abolishment of the citizens' registration duty

  - uncertainty concerning the financing → consider other modes

CSDI

Why International Social Survey Programme (ISSP)?

- Long tradition - established in 1984

- Covers 54 participant states

- The same set of ca. **60 substantial questions** is asked

- **Partially unified set of background questions**

- **Partially unified methodology**

  - Initially was designed for the self-administration mode

  - Other modes were also allowed later on

- Each year **one thematic module is conducted**

CSDI

ISSP modules calendar 1985-2014

	I	II	III	IV
Role of Government	1985	1990	1996	2006
Social Networks	1986			
Social Inequality	1987	1992	1999	2009
Family and Changing Gender Roles	1988	1994	2002	2012
Work Orientations	1989	1997	2005	
Religion	1991	1998	2008	
Environment	1993	2000	2010	
National Identity	1995	2003	2013	
Social Relations and Support Systems	2001			
Citizenship	2004	2014		
Leisure Time and Sports	2007			
Health	2011			

ISSP 2008 Religion (III) module

	AU-Australia	AT-Austria	BE-Belgium	CL-Chile	TW-Taiwan	HR-Croatia	CY-Cyprus	CZ-Czech Republic	DK-Denmark	DO-Dominican Republic	FI-Finland	FR-France	DE-Germany	HU-Hungary	IE-Ireland	IL-Israel	IT-Italy	JP-Japan	KR-South Korea	LV-Latvia	MX-Mexico	NL-Netherlands	NZ-New Zealand	NO-Norway	PH-Philippines	PL-Poland	PT-Portugal	RU-Russia	SK-Slovak Republic	SI-Slovenia	ZA-South Africa	ES-Spain	SE-Sweden	CH-Switzerland	TR-Turkey	UA-Ukraine	GB-United Kingdom	US-United States	UY-Uruguay	VE-Venezuela
PAPI, no visuals					+		+														+									+										
PAPI, no visuals					+		+														+									+										
PAPI, visuals				+	+	+		+						+	+	+			+	+			+								+		+		+	+			+	+
PAPI, interpreter,no visuals					+																																			
PAPI, interpreter,visuals																									+						+									
CAPI, no visuals										+																											+			
CAPI, visuals																		+									+							+				+		
CAPI, R readg questionnaire		+																																						
SAQ, interviewer attendg					+																			+																
SAQ, drops-off, int. picks up later														+																								+		
SAQ, drops-off,mailed back by R			+																																					
SAQ, mailed back by R	+								+		+	+										+	+	+										+						
CASI													+																									+		
Web survey combined with self-compl,pap a pencil,mailed back by R																								+																

- CATI mode were removed from the analysed set

CSDI

To what extent does the method make the results?

As Deming (1944, p. 362) argued:

"The problem is not whether the differences [between modes] exist but how great are the differences, and why do they exist, and what effect will they have on the uses that are made of the data?"

Now the key problem in cross-national comparisons is:

How to separate mode effects from the real differences between countries?

CSDI

Assumptions

- All substantive questions are tested

    - Dummy coding of the all non - dichotomous questions

- Hierarchical structure of the data

    - 2-level model: individual – respondents + country

- Control variables in the model:

    - age 18-75 y. o. and gender - 1 level

    - average age of the population - 2 level

- Mode as a predictor of differences

CSDI

Approach

The mode effects will be revealed through the level of significance of the mode when explaining the differences between countries in the outcomes

CSDI

Dimension: Interviewer

Interviewer attending or reading vs. without intervention or presence of the interviewer

(1 – yes, N=37281)

- PAPI no visuals / with visuals

- PAPI with visuals, interpreter assists

- CAPI no visuals / with visuals

- CAPI with visuals, interpreter assists

- SAQ, interviewer attending

(0 – no, N=16836)   Total, N=54117

- SAQ drops-off and picks up later

- SAQ drops-off and mailed back by r.

- SAQ mailed to and mailed back by r.

- CASI

- CASI with SAQ mailed to respondent

  and mailed back by respondent

CSDI

Dimensions: F2F – Stimuli - Technology

F2F: (1 – yes, N=36367)

Visuals non visuals: (1 – yes, N=47538)

Computer, Internet: (1 – yes, N=8852)

CSDI

Method

We test for significance of modes by comparing two models:

with and without mode predictor

$$logit(Q1_{ij}) = \beta_{0j} + \beta_{1j}gender_{ij} + \beta_{2j}age_{ij} + \varepsilon_{ij}$$
$$\beta_{0j} = \gamma_{00} + \gamma_{01}popageavg_j + \gamma_{02}method_j + u_{0j}$$

CSDI

Summary of results for all dimentions

	F2F	VISUAL	INTEVIEWER	COMPUTER
No of significant differences	43	8	44	10
%	37,1	6,9	37,9	8

- **Almost the same number of questions that are prone to F2F and Interviewers mode effects**

Summary of results for all dimentions

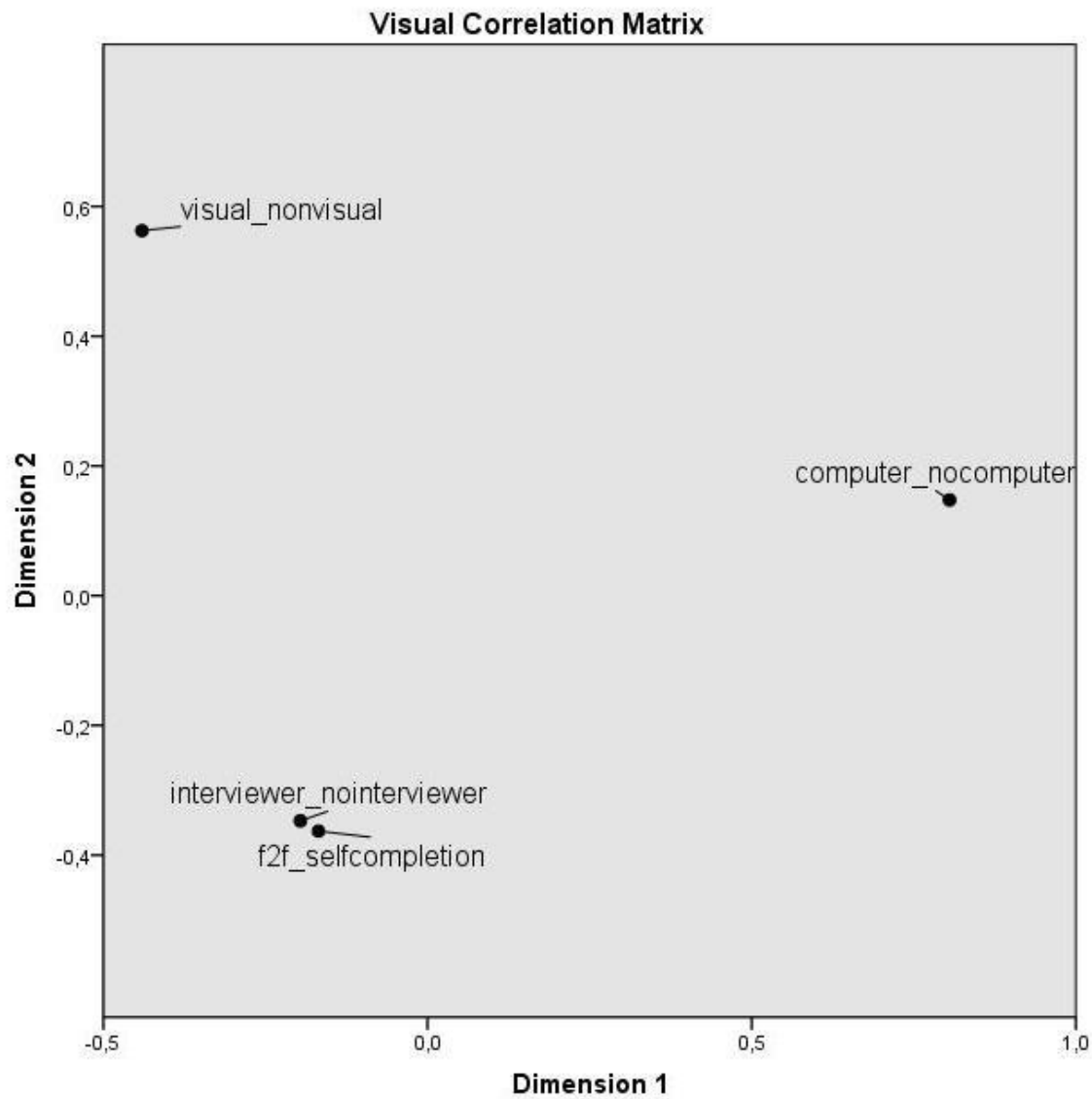| No of significant differences	No of variables	%
0	49	42,2
1	30	25,9
2	34	29,3
3	3	2,6
sum	116	

- **Almost 3 out of 5 question are prone to 1, 2 or 3 mode effects**

CSDI

Results for F2F and Interviewer

No of significant differences	No of variables	%
0	62	53,4
1	21	18,1
2	33	28,4
sum	116	

- **Every second question is prone to mode effects: Interviewer or F2F or both**

CSDI

The nature of those mode effects

Visual Correlation Matrix

Summary

- The nature of the mode introduces a differentiation

- Mode should be viewed in a various aspects

- Analysis proved that all four dimensions of mode effects have impact on outcomes

- The qualities of the modes are not independent of one another

CSDI

Conclusions

1. We argue that as the data collected on sensitive topics and the results depend on the administration mode, researchers should be cautious of combining data and comparing results from different modes

2. If different modes were used when collecting cross-national data, it is advisable to include mode in the model

3. There is a need of standardization in cross-national projects in terms of the mode

- better avoid to mix F2F with self-completion or techniques that assume presence of interviewer with those that do not

- if it's not possible, when selecting questions to the project, take into account that some of them may be prone to the effects of the mode

Thank you for your attention!

Contact information:
    teresa.zmijewska@ifispan.waw.pl   and   marcin.zielinski@uw.edu.pl