

The European Social Survey, Round 7
‘Poland and its European Context: Continuity and Change’

**Does Mixed Mode Data Collection Improve the
Achieved Sample? A Comparison of the ESS
PAPI Survey and a Mixed Mode Experiment**

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Outline

- **Problem**
- **Mixed Mode experiment**
- **Response rate**
- **Sample composition: socio-demographics**
- **Sample composition: substantive questions
(respondent characteristics associated with
survey participation)**
- **Summary and conclusions**

Changes in survey modes applied (*Groves 2011*)

- **Declining appeal of F2F interviews**
 - **Declining response rate** (*see: Atrostic et al. 2001; de Leeuw and Heer 2002; Lynn 2008; Brick and Williams 2013*)
 - **Considerably rising survey costs: advance letters, incentives for respondents (even up to EUR 50 in Europe), persuasion letters, increasing share of hard-to-reach sampled persons and the related increase in interviewers' travel costs etc.** (*Sztabiński 2016*)
- **Declining appeal of telephone interviews: the spreading of mobile telephones and declining penetration of fixed-line phones in households**
 - **No sampling frame**
 - **Different user behaviour versus fixed-line phones**
 - **Declining response rate** (*Curtin et al. 2005*).
- **Web surveys becoming increasingly popular**
 - **Cost-effective BUT:**
 - **Coverage error**
 - **No sampling frame**
 - **Low response rate**

Mixed Mode Data Collection

“...mixing modes gives an opportunity to compensate for the weaknesses of each individual mode at *affordable* cost” (*de Leeuw 2005: 235*)

The results of Mixed Mode Data Collection may depend on:

- **design:**
 - **concurrent (different modes used concurrently with different respondents), OR**
 - **sequential (first one mode, then another mode or modes)**
- **survey modes used**
- **traditions linked with various modes in different countries**
(Harkness 2008)

Mixed Mode Experiment in Poland in connection with ESS 7

Research question:

In comparison with F2F, how does Mixed Mode Data Collection influence:

- **the response rate?**
- **the sample composition?**

Hypotheses and assumptions:

- **Some people have mode preferences (*Groves and Kahn 1979*)**
 - ⇒ **the use of different modes should motivate additional people to take part in a survey vs. a unimode survey (*de Leeuw 2005; de Leeuw et al. 2008*)**
 - ⇒ **nonresponse will shrink and the composition of achieved sample will improve**

However:

- **The results of experiments do not clearly confirm a significant increase in response rate with the use of multiple modes vs. a unimode survey (*Dillman et al. 1994; Lozar Manfreda et al. 2001; Millar and Dillman 2011; Olson et al. 2012*)**

European Social Survey, Round 7 in Poland

- **General sample of 2715 individuals, aged 15+**
- **Mode: face-to-face interview (PAPI)**
- **Interview duration: over 70 min.**
- **Response rate: 65.8%**
- **Rigorous research design:**
 - **2 advance letters, the first one containing an insert with examples of ESS findings**
 - **incentives for respondents**
 - **persuasion letters**
 - **a dedicated respondent website**
 - **highly motivated interviewers**
 - **personal briefing of the interviewers**
 - **interviewers' work monitored etc.**
- **Fieldwork period: 20 April – 31 August 2015**

Mixed Mode Experiment in Poland (2015)

- **Carried out in parallel to the ESS 7 main study**
- **Identical questionnaire as in ESS 7 (with some necessary modifications resulting from the mode of data collection)**
- **General sample: 800 individuals, aged 15+, drawn in exactly the same way as in ESS 7**
- **Concurrent design combined with sequential design:**
 - **main mode: self-administered questionnaire (to be chosen by the respondent from: a postal questionnaire, a web survey or an e-mail survey)**
 - **additional mode: face-to-face interview**
- **Rigorous research design:**
 - **first mailing with attached return envelope and an insert with examples of ESS findings**
 - **a gift attached to the first mailing (a notepad with a magnet)**
 - **a dedicated respondent website (different than in ESS 7)**
 - **interviews conducted by the same interviewers as in ESS 7 main study (highly motivated)**
 - **persuasion letters sent to nonrespondents**

Mixed Mode Experiment in Poland (2015)

Design of the experiment:

- **Postal questionnaire with cover letter sent by post**
- **The cover letter offered an option to:**
 - **complete the questionnaire on a website (web survey)**
 - **complete the questionnaire sent by e-mail (EMS)**
- **Reminders/Thank-you letters sent by post to the respondents**
- **Face-to face interviews held with sampled persons who did not complete the self-administered questionnaire**
- **Postal questionnaire with a persuasion letter sent by post to refusers and inaccessible persons (223 individuals)**



Fieldwork period: 7 April – 30 September 2015

Mixed Mode Experiment in Poland (2015): Results

Response rate: 55.9%

Response rates by survey modes

Modes of data collection	Cases completed	Share in all cases completed	Response rate for the total sample
Initial mailing:			
• Postal questionnaire	153	36.5	20.4
• Web survey	24	5.7	3.2
• EMS	0	0	0
Face-to-face interview	231	55.2	30.8
Postal questionnaire following the persuasion letter	11	2.6	1.5
Total	419	100.0	55.9

Sample composition: Socio-demographics

Sex	Population 15+* (%)	ESS 7 main study (%)	Mixed Mode (%)
Female	52.1	54.4	53.2
Male	47.9	45.6	46.8

Dissimilarity indices **Mixed Mode vs. population: 1.1**
ESS 7 vs. general population: 2.3
ESS 7 vs. Mixed Mode: 1.2

Chi-square **ESS 7 vs. Mixed Mode: 0.066 n.s.**



**Demographic Yearbook of Poland 2015*

Sample composition: Socio-demographics

Age	Population 15+* (%)	ESS 7 main study (%)	Mixed Mode (%)
15 – 24	14.5	14.2	11.7
25 – 34	19.2	15.9	16.4
35 – 44	17.0	17.3	16.8
45 – 54	15.0	13.6	15.4
55 – 64	17.0	18.2	19.0
65 – 74	9.3	11.7	14.1
75+	8.0	9.1	6.6

Dissimilarity indices **Mixed Mode vs. general population: 7.2**
 ESS7 vs. general population: 5.0
 ESS 7 vs. Mixed Mode: 5.5

Regression **ESS 7 vs. Mixed Mode: B=0.348 n.s.**



*Demographic Yearbook of Poland 2015

Sample composition: Socio-demographics

Size of domicile (No. of inhabitants)	Population 15+* (%)	ESS 7 main study (%)	Mixed Mode (%)
Village	38.8	46.6	45.1
Town –under 10,000	5.9	6.2	5.5
Town 10,000 – 19,999	7.1	7.3	6.9
Town 20,000 – 49,999	11.0	10.5	10.4
Town 50,000 – 99,999	8.5	6.4	6.5
Town 100,000 – 199,999	8.4	6.5	6.3
City 200,000 – 499,999	8.7	6.9	8.3
City 500,000 – 999,999	7.1	5.6	6.7
Warsaw	4.5	3.8	4.2

Dissimilarity indices: Mixed Mode vs. general population: 6.4

ESS 7 vs. general population: 8.4

ESS 7 vs. Mixed Mode: 3.0

Chi-square

ESS 7 vs. Mixed Mode: 2.929 n.s.



Sample composition: Socio-demographics

Level of education	Population 15+* (%)	ESS 7 main study (%)	Mixed Mode (%)
Incomplete primary	1.1	0,9	0.5
Primary or first stage of basic	22.9	20.0	17.4
Lower secondary	23.5	25.1	27.5
Upper secondary	31.3	29.9	29.3
Post-secondary, not tertiary	2.8	5.2	7.0
First & second stage of tertiary	18.4	19.1	18.3

Dissimilarity indices: Mixed Mode vs. general population: 8.2

ESS 7 vs. general population: 4.6

ESS 7 vs. Mixed Mode: 4.3

Chi-square

ESS 7 vs. Mixed Mode (7 ISCED categories): 4.390 n.s.



Sample composition: Socio-demographics

Number of people in the household	Population 15+* (%)	ESS 7 main study (%)	Mixed Mode (%)
1	8.8	10.8	9.6
2	16.5	25.4	24.3
3	21.2	23.7	24.1
4	25.6	21.7	21.8
5	14.4	9.3	11.5
6	7.4	5.2	5.0
7+	6.1	4.0	3.6

Dissimilarity indices: Mixed Modes vs. general population: 11.6

ESS 7 vs. general population: 13.4

ESS 7 vs. Mixed Mode: 2.8

Regression

ESS 7 vs. Mixed Mode: B=0.070 n.s.



**Demographic Yearbook of Poland 2014*

Sample composition: Substantive questions

The analysis included questions concerning those respondent characteristics which are known, based on research, to be connected with survey participation:

- political involvement (Granberg and Holmberg 1992; Loosveldt et al. 1998; Vooght 2004)
- social involvement (Groves and Couper 1998)
- political orientation (Jowell et al. 1993; Durand et al. 2002)
- sense of influence on politics (Sztabiński and Pokorska 2010)

Example (IDI): /I would take part in a survey as long as / ‘My opinion will give some food for thought to our government and the country. I know this won’t be the case. /.../ If I express an opinion that things that are happening are ridiculous and pathetic, that won’t make any difference. If there was a possibility to make a miraculous change and if I could be sure that the change will happen, I would. I wanted change, I voted in the elections but there aren’t any changes there. /.../ Why should /people/ say what they’re afraid of if nobody’s interested?’ (1/2009. F, 25 y.o., tertiary ed., teacher, city 500-900 thousand)

- sense of threat to personal security (Sztabiński and Pokorska 2010, 2012)

Example (IDI): I don’t let interviewers into my home. We are living in a country full of aggression, burglaries, no trust in other people. I don’t know who the interviewer is/.../ How do I know? They might kill me or rob me (1/2009. F, 25 y.o., tertiary ed., teacher, city 500-900 thousand)

Sample composition: Substantive questions

The following were used to compare the Mixed Mode data with the ESS7 (F2F) data:

- **11-point numeric scales: linear regression**
- **ordinal variables: ordinal logistic regression**
- **dichotomous variables: binary logistic regression**

Independent variable: type of sample

- **ESS 7 sample =0**
- **Mixed Mode experiment sample =1**

Sample composition: Substantive questions

POLITICAL INVOLVEMENT

Variables	B
A2. (TVPOL) Watching news or programmes about politics and current affairs (0=no time at all)	-0.103
B1. (POLINTR) Interest in politics (1=very interested)	0.084
B9. (VOTE) Vote in the last national election (1=yes)	0.051
B11-B17. Political activity (1=yes)	0.654***



*****p ≤0.001**

POLITICAL INVOLVEMENT

There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following? Have you...

B11. (CONTPLT)	...contacted a politician, government or local government official?	1. Yes	2. No
B12. (WRKPRTY)	...worked in a political party or action group?	1. Yes	2. No
B13. (WRKORG)	...worked in another organisation or association?	1. Yes	2. No
B14. (BADGE)	...worn or displayed a campaign badge/sticker?	1. Yes	2. No
B15. (SGNPTIT)	...signed a petition?	1. Yes	2. No
B16. (PBLDMN)	...taken part in a lawful public demonstration?	1. Yes	2. No
B17. (BCTPRD)	...boycotted certain products?	1. Yes	2. No

A new variable was created: POLACTIV. If at least 1 x 'Yes' \Rightarrow POLACTIV=1, 'No'=0

Sample composition: Substantive questions

SOCIAL INVOLVEMENT

Variables	B
C2. (SCLMEET) Meetings with friends, relatives or work colleagues (1=never)	-0.313***
C3. (INPRDSC) With how many people can discuss intimate and personal matters (0=none)	-0.234*
C4. (SCLACT) How often take part in social activities (1=much less than most people)	-0.352***
E17. (SCLACT) Spend any time looking after or giving help to family members, friends, neighbours or others (1=yes)	0.181

***p ≤0.05 ***p ≤0.001**

Sample composition: Substantive questions

POLITICAL ORIENTATION

Variable	B
B19. (LRSCALE) Left-right scale (0=left)	-0.305*

***p ≤ 0.05**

Sample composition: Substantive questions

SENSE OF INFLUENCE ON POLITICS

Variables	B
B1c. (PSPPIPL) How much does the political system allow people like you to have an influence on politics (0=not at all)	-0.526***
B1e. (PTCPPLT) How much would you say that politicians care what people like you think (0=not at all)	-0.447***

*****p ≤0.001**

Sample composition: Substantive questions

SENSE OF THREAT TO PERSONAL SECURITY

Variables	B
C5. (CRMVCT) Respondent or member of household a victim of a burglary or assault (1=yes)	0.216
C6. (AESFDRK) Feeling safe walking alone in local area after dark (1=very safe)	0.221*

***p ≤ 0.05**

Summary and conclusions

- **The response rate in the Mixed Mode experiment was significantly lower than in ESS 7 (F2F)**
 - **A similar result achieved in ESS 4 in the Netherlands, despite a different research design and (partly) different modes of data collection (*Martin & Lynn 2011*).**
 - A burdensome questionnaire?**
 - **However, the response rate is significantly higher than in other academic F2F surveys in Poland**
- **Sample composition: 5 socio-demographics**
 - **The sample deviates from the general population**
 - **BUT: very similar to the ESS sample**
 - **The outcome is similar to ESS 4 experiment in the Netherlands**
- **Sample composition: substantive questions on respondent characteristics connected with survey participation**
 - **Mixed Mode sample and ESS 7 sample are different**
 - **The use of Mixed Mode may improve or worsen the sample composition**
- **Summing up: the use of Mixed Mode does not bring the expected results**
- **The results of the Polish experiment are similar to those of the Dutch Mixed Mode experiment in ESS 4: Are the results independent of research design (concurrent or sequential) and modes used?**

Thank you for your attention

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**Data files from ESS rounds 1, 2, 3, 4, 5, 6 and 7 are available from:
www.europeansocialsurvey.org**

Cost per 1 case in the Mixed Mode experiment vs. ESS 7

- **Mixed Mode experiment: postal questionnaire was the main mode of data collection**

Cost per 1 case: PLN 172.4 (EUR 40.1)

- **ESS 7: PAPI**

Cost per 1 case: PLN 170.8 (EUR 39.7)

Among others, the following factors drove the high costs of the Mixed Mode experiment:

- **Multiple modes of data collection used (postal questionnaire, web survey, EMS and F2F)**
- **Rigorous research design**
- **If we exclude the ineffective modes (web survey, EMS) and persuasion letters:**
 - **Cost per 1 case: PLN 146.6 (EUR 34.1)**
 - **Response rate: 51.3%**

POLITICAL INVOLVEMENT

A2. (TVPOL) **Card 1. And again on an average weekday, how much of your time watching television is spent watching news or programmes about politics and current affairs? Still use this card.**

- 00. No time at all**
- 01. Less than ½ hour**
- 02. ½ hour to 1 hour**
- 03. More than 1 hour, up to 1½ hours**
- 04. More than 1½ hours, up to 2 hours**
- 05. More than 2 hours, up to 2½ hours**
- 06. More than 2½ hours, up to 3 hours**
- 07. More than 3 hours**

B1. (POLINTR) **How interested would you say you are in politics – are you... READ OUT ...**

- 1. very interested**
- 2. quite interested**
- 3. hardly interested**
- 4. or, not at all interested?**



POLITICAL INVOLVEMENT

B9. (VOTE) Some people don't vote nowadays for one reason or another. Did you vote in the last [country] national election in [month/year]? 1. Yes 2. No

Answer: 'Not eligible to vote' was omitted

There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following? Have you...

B11. (CONTPLT)	...contacted a politician, government or local government official?	1. Yes	2. No
B12. (WRKPRTY)	...worked in a political party or action group?	1. Yes	2. No
B13. (WRKORG)	...worked in another organisation or association?	1. Yes	2. No
B14. (BADGE)	...worn or displayed a campaign badge/sticker?	1. Yes	2. No
B15. (SGNPTIT)	...signed a petition?	1. Yes	2. No
B16. (PBLDMN)	...taken part in a lawful public demonstration?	1. Yes	2. No
B17. (BCTPRD)	...boycotted certain products?	1. Yes	2. No

A new variable was created: POLACTIV. If at least 1 x 'Yes' ⇒ POLACTIV=1, 'No'=0

SOCIAL INVOLVEMENT

C2. (SCLMEET)

Card 22. Using this card, how often do you meet socially with friends, relatives or work colleagues?

- 01. Never**
- 02. Less than once a month**
- 03. Once a month**
- 04. Several times a month**
- 05. Once a week**
- 06. Several times a week**
- 07. Every day**

C3. (INPRDSC)

Card 23. How many people, if any, are there with whom you can discuss intimate and personal matters? Choose your answer from this card.

- 00. None**
- 01. 1**
- 02. 2**
- 03. 3**
- 04. 4-6**
- 05. 7-9**
- 06. 10 or more**

SOCIAL INVOLVEMENT

C4. (SCLACT)

Card 24. Compared to other people of your age, how often would you say you take part in social activities? Please use this card.

- 1. Much less than most**
- 2. Less than most**
- 3. About the same**
- 4. More than most**
- 5. Much more than most**

E17. (HLPFMLY)

Card 50. Do you spend any time looking after or giving help to family members, friends, neighbours or others because of any of the reasons on this card? Do not count anything you do as part of your paid employment. INTERVIEWER NOTE: Yes to any of the reasons on the card should be coded 'yes'

1. Yes 2. No

- 1. Long term physical ill health or disability**
- 2. Long term mental ill health or disability**
- 3. Problems related to old age**

If at least 1 x 'Yes' ⇒ HLPFMLY =1, 'No'=2

POLITICAL ORIENTATION

B19. (LRSCALE) CARD 12. In politics people sometimes talk of “left” and “right”.
Using this card, where would you place yourself on this scale, where 0
means the left and 10 means the right?

Left										Right
00	01	02	03	04	05	06	07	08	09	10

SENSE OF INFLUENCE ON POLITICS

B1c. (PSPPIPL) CARD 7. And how much would you say that the political system in [country] allows people like you to have an influence on politics? Please use this card.

Not at all Completely
00 01 02 03 04 05 06 07 08 09 10

B1e. (PTCPPLT) CARD 9. How much would you say that politicians care what people like you think? Please use this card.

Not at all Completely
00 01 02 03 04 05 06 07 08 09 10



SENSE OF THREAT TO PERSONAL SAFETY

C5. (CRMVCT) Have you or a member of your household been a victim of a burglary or assault in the last 5 years? 1. Yes 2. No

C6. (AESFDRK) How safe do you – or would you – feel walking alone in this area [local area or neighborhood] after dark? Do – or would – you feel... READ OUT...

- 1. very safe**
- 2. safe**
- 3. unsafe**
- 4. or, very unsafe?**

