



## Switch Mode research – Changing non-response into on-line data

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### Introduction

Technology nowadays plays a great part in overcoming research problems. Finding the right respondents, increasing the number of successful interviews and responding to the wishes of interviewees for more flexible ways of interviewing are all issues that are dealt with on a technical level.

The last years the development of Multi and Mixed Mode research has been a cornerstone of modern data collection and is the subject of this paper.

The paper will deal with the theory behind Switch Mode research, our software solution and some results of fieldwork projects done in Switch Mode.

### The difference between Multi Mode and Mixed Mode<sup>1</sup>

Multi Mode:

Surveys utilising more than one research channel to reach different sub-samples, but confining each sub-sample to one channel.

Mixed mode:

Serial: Surveys that involve successive interviewing stages, each utilising a different mode.

Parallel: Surveys that allows participants to choose the mode and even to switch modes.

With Switch Mode we refer to the serial mixed mode of interviewing.

### The boom of Multi Mode research

The following developments have contributed to the popularity of Multi Mode research:

Web surveys are the undisputed replacement for paper-based mail surveys. Wim van Sloten, director of the Dutch Market Research Association (MOA), estimates that on-line research will eventually amount to 25% to 30% of the total research market. The lower prices for on-line research will mean that research methods like CATI, PAPI and CAPI (to lesser extent) will be used less frequent.<sup>2</sup>

Falling response rates in especially CATI also increased the need for alternative modes.

'One size fits all' model does not work in international research. Surveying world-wide might mean that respondents in the USA are invited via CAWI, EU-respondents in CATI and Asian respondents via CAPI/PAPI, in order to reach the targeted population.

Research shows that mixed mode surveys:

- Achieve a better response
- Remain scientifically valid

### Switch Mode – NIPO Software solution

One channel-independent questionnaire.

All data in one central database.

Respondent is given a choice to continue the questionnaire in CATI or to switch to CAWI.

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<sup>1</sup> definitions from Tim Macer

<sup>2</sup> Reclameweek 22/9/04, issue 39, page 2



In case of a switch the e-mail is sent directly to respondent. This means that when the interviewer notes the e-mail address and closes the interview, the respondent will receive an e-mail invitation in the mail inbox within half a minute.

The NIPO Fieldwork System, that supports Switch Mode research, has been used in fieldwork production starting September 2004. TNS NIPO and 2 other clients were the first to implement the new system. In October 2004 all NIPO Software CATI clients will receive the new version.

### **Switch Mode – No interviewer**

CASI lessons from the social sciences:

#### 1. Likeability

De Leeuw and Nicholls (1996) cite several studies concerning the likeability. And they conclude (p. 12): 'respondents generally like CASI; they find it interesting, easy to use and amusing'. Beckenbach (1995) reports that more than 80% of the respondents has no problem at all using a computer and interviewing program and that few respondents complain about physical problems such as eye-strain.

2. Experience of privacy, more self-disclosure, less sensitive to social prestige bias  
Weisband and Kiesler (cited by de Leeuw) found strong support for the hypothesis that respondents experience a higher degree of privacy and anonymity, which would lead to more self-disclosure and less social desirability bias. They found that even when CASI was compared with self-administered paper-and-pencil questionnaires (PAPI) self-disclosure was significantly higher in the computer condition.

#### 3. Less time pressure

The freedom respondents is given, provides them with greater motivation. The quality of the data is high because respondents need not hurry to finish the interview. They can take their time, even temporarily break off the interview. A consistent finding in the literature is that item-non-response caused by respondent or interview errors, is virtually eliminated (Nicholls, Baker & Martin, 1997).

#### 4. Less impact of interviewer characteristics

From the social science literature it becomes clear that there is a process of interaction between the interviewer and the respondent during the interview but even during the pre-stage of the interview. Concerning the pre-stage Pondman (1998) shows that refusal rates differ significantly between interviewers. During the interview interviewer's gender, age, experience, social skills, physical appearance and even voice characteristics influence the answers given (Dijkstra 1983, Couper & Groves, 1992, Smit, 1995).

### **Switch Mode – When to use**

The switch from CATI to CAWI can be used in the following situations:

- As an alternative for CATI non-response.
- When the respondent needs to abandon the telephone interview (e.g. doorbell is ringing) or when this person gets irritated about the length of the questionnaire.
- As a means to reach hard-to-get target groups that refuse to participate in CATI interviews (doctors, for example, are difficult to get on the telephone).
- To increase fieldwork productivity, especially in combination with predictive dialing. Predictive dialing is most successful in the event of a short questionnaire and many interviewers, so by recruiting respondents by telephone and then immediately switching to CAWI the fieldwork can reach the maximum amount of respondents.
- Graphically oriented questionnaires using multi media or conjoint measurement routines.
- For web questionnaires, that need to include questions about spontaneous awareness (so first the spontaneous awareness questions by telephone, then switching to CAWI).
- Privacy sensitive questionnaires.



## Switch Mode - NIPO Fieldwork System

The new NIPO Fieldwork System integrates CATI and CAWI into one powerful instrument. This new instrument allows to conduct both administered and self-completion surveys across multiple channels (web and telephone). It provides all facilities to anticipate on the modal influence of doing research across these two methods.

All required CATI functionality, like quality control, usage of predictive dialing, etc., naturally is included. Next to that, the system offers everything needed for state-of-the-art web surveys. The NIPO Fieldwork System uses channel-aware script, that is one questionnaire for the CATI and CAWI environment, so no alterations of the script have to be made to change or add a channel. The script will behave different depending on the channel. The NIPO Fieldwork System offers optimal flexibility, both for researchers as respondents.

### Switch-by-a-click

The researcher's need for multi-modal surveys triggered the development of the option to instantly switch a survey from CATI to CAWI or vice versa in the NIPO Fieldwork System. No transferring of files, re-configuration or redesign is required to switch channel. This way the fieldwork department e.g. can easily increase the response of the CATI survey if the deadline is close by activating CAWI, without risking the quality of the survey. In today's world of falling response rates of telephone surveys it is very effective to offer a busy respondent the option to participate in the survey on-line.

### Full CATI functionality

The integration of CATI and CAWI does not compromise the CATI functionality at all. All traditional powerful features you expect in a NIPO CATI System are there. So a/o predictive dialing support, auto and power dial facilities, language switching, omnibus support, sample, quota, CATI@Home (remote interviewers working from home), appointment and response management are all a part of the system.

### Enhanced CAWI system

The CAWI functionality allows creating and conducting graphical enhanced web surveys. By using templates and style sheets each survey can automatically be placed in the company layout. Or, if required, into the layout templates of your client. The templates and style sheets can be changed per question if required. The system requires the very bare minimum of browser capabilities and will not be affected by any firewall. This again offers the best possible change on high response and allows to perfectly conduct e.g. employee satisfaction surveys without worrying if the companies firewall will allow the surveys. Of course, the CAWI part of the system is supported with extensive management tools for panel management, sampling and progress monitoring.

## Switch Mode – Survey results

Of the Switch Mode projects that were carried out by TNS NIPO we have chosen 3 to discuss and show the results of switching from CATI to CAWI: Survey Neelie Kroes, Survey Retail and Survey Financial Service Provider.

### Survey Neelie Kroes

This survey was an opinion poll about the election of Dutch former minister Neelie Kroes as European Commissioner-designate for competition.

Questions about her election were asked to 1,000 panel members. Next to that, 200 respondents were contacted in the evening via CATI, using Random Digit Dialing, for this 4-5 minute questionnaire.

There were 3 groups of respondents:

- A: Completely CATI
- B: Hard switch to CAWI at the beginning of the questionnaire



- C: Hard switch to CAWI in the middle of the questionnaire

This data has been compared to the panel data and although the sample is too small for definite conclusions, no significant differences were found between the data from CATI, CAWI and Panel.

Survey	Switch	Completed interviews	CATI	CAWI	% On-line
A	No Switch	55	55	0	0,0%
B	Hard: at the beginning	77	57	20	26,0%
C	Hard: In the middle	72	60	12	16,7%
		204	172	32	

The respondent were invited to switch, but if they did not want to, the interview could be continued in CATI. From the data above it seems that respondents are more likely to switch at the beginning than in the middle of an interview.

	C0521b		C0521c	
E-mails sent	39	100,0%	30	100,0%
Wrong address	2	5,1%	1	3,3%
Not opened	13	33,3%	15	50,0%
Suspended	4	10,3%	2	6,7%
Successful	20	51,3%	12	40,0%

It seems that people that indicate to fill in the questionnaire on-line, also really participate for a great part, looking at the response of 40% to 50%. From the 70 e-mail invitations sent only 3 were not delivered to the respondent because of an incorrect e-mail address.

### Survey Retail

This survey was held among small businesses (N=1000) and was running in the field for 3 weeks. The subject was the transferring a certain bank services.

Switch Mode was used as a soft switch, meaning as a final option for every CATI respondent that did not want to participate in the interview by telephone.

No significant differences were found between the data of CATI and CAWI.

Successful interviews		
Successful CATI	900	90,5%
Successful CAWI	95	9,5%
	995	100,0%

Refusals CATI		
Refusals	1.690	80,4%
Switched to CAWI	264	12,6%
Suspended CAWI	54	2,6%
Successful CAWI	95	4,5%
	2.103	100,0%



**Difference CATI-CAWI:**

The respondents that used the option to switch were more than average part of the hard-to-reach population, like financial directors. So, mission accomplished.

**Survey Financial Service Provider**

This project was a Client Satisfaction Survey (N=200), running for 1,5 week in the call center.

Switch Mode was used here as well as a soft switch: “You can do the interview by telephone or complete the survey via the internet”.

There was a majority preference for completing the survey on-line.

<b>Successful interviews</b>		
Successful CATI	83	41,5%
Successful CAWI	117	58,5%
	200	100,0%

<b>Preference Respondents</b>		
Refusal	443	42,6%
Completely in CATI	264	25,4%
Switch to CAWI	334	32,1%
	1.041	100,0%

<b>Behaviour CAWI respondents</b>		
E-mail only received	179	53,6%
Questionnaire suspended	38	11,4%
Questionnaire completed	117	35,0%
	334	100,0%

**Difference CATI-CAWI:**

A more than average part of the group of respondents that switched, bank via internet or have an internet savings account. They also visit less frequently their local bank office. More man than women fill in the questionnaire via internet. The household income of the switched respondents is higher than that of the CATI respondents.

**Switch Mode – Experiences**

- On-line surveys are filled until 4 days after the telephone fieldwork
- Interviewers need to be well instructed about when they should offer the option to switch
- Some knowledge of internet/e-mail is also welcome for the interviewers. Some fictitious examples of incorrect e-mail addresses:
  - [hoteldehoorn@wannadoo.nl](mailto:hoteldehoorn@wannadoo.nl) (should be “wanadoo”)
  - [Info@autoschade\\_berken.nl](mailto:Info@autoschade_berken.nl) (should be “autoschade-berken”)
  - [j.smit@marlog-vorwarding.nl](mailto:j.smit@marlog-vorwarding.nl) (should be “forwarding”)
  - [h.mutten@frieler.nl](mailto:h.mutten@frieler.nl) (should be “freeler”)
  - [m.vries@kacema.nl](mailto:m.vries@kacema.nl) (should be “casema”)
- Make time available for a good questionnaire that works in both channels (CATI and CAWI) – see papers Don Dillman
- Interviewers and CATI supervisors appreciate the switch option
- A lot of demand for this solution from researchers – Switch Mode is still something that sets you apart from the competition and earns you projects
- Within TNS NIPO every week 3 projects are started with Switch Mode



## Switch Mode – Conclusions

Dillman's\* conclusions

- There are observable and systematic differences
- Disadvantages outweighed by overall improvement in sample coverage, response, time and cost
- Switching modes does increase response rate
- But, provided that the switch is done immediately: tomorrow is too late

\* Don A. Dillman is recognised internationally as a major contributor to the development of modern mail, telephone and Internet survey methods. His book, *Mail and Telephone Surveys: The Total Design Method* (1978), was the first to provide detailed procedures for conducting surveys by these methods. Recent books include: *Mail and Internet Surveys: The Tailored Design Method* (2000), and *Survey Nonresponse* (2002, eds., Groves, Dillman, Little and Eltinge). His current research emphasises how visual design and layout influences respondent answers to self-administered surveys.

## NIPO Software

NIPO Software is a leading, global software vendor specialised in the market research industry.

Founded in 1945, TNS NIPO is the market leader in the Netherlands and employs a wide variety of survey methods. As the first market research institute in the world, TNS NIPO developed its own software for data collection and analysis. The constant, close co-operation between computer experts and researchers has led to the development of highly practical and complete survey software solutions.

Since 1986 IT has been a cornerstone within the NIPO strategy, using the survey software in-house and marketing the software to third parties. Today, NIPO Software is used by more than 200 customers worldwide. Our customers are primarily market research companies and call centers, followed by top 1000 end-user companies like Canon.

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