

WHAT'S NEW PUSSYCAT? CATI, CAPI AND CASI: OR WHAT ELSE?

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Background

The Netherlands have a special position in the world of national readership surveys, but this may change in the near future. The current CATI-operated SummoScanner is faced with several problems. It is obvious that the danger of title confusion is greater in telephone interviews than would be the case in face-to-face interviews where distinctive mastheads can be shown. This weak point has so far been taken for granted, because CATI combined with random digit dialling offers the possibility of readership research with large probability samples at relatively low costs.

In the course of time new problems have shown up. The response rate has decreased dramatically, while at the same time the length of the interview is increasing, due to the necessity of measuring more titles. About two years ago a task force started to look for alternative datacollection methods, that could handle more titles. The symposium in Vancouver gave a decisive impetus to their work. The pros and cons of several alternatives were evaluated compared with CATI, the main criteria being:

- make adequate use of modern technology
- make the interview less burdening and more pleasant
- eliminate interviewer influence as much as possible
- make adaptations to future developments (e.g. the Internet) possible

Test with CASI/CAPI

After careful considerations it was decided to test a combined CASI and CAPI method. The test consists of a qualitative and a quantitative stage. The qualitative test has been carried out in February 1999, by two research agencies (Interview•NSS and NIPO).

Objectives

The test should give an answer to several questions concerning a CASI/CAPI-questionnaire of the SummoScanner:

- What about the length of the interview?
- What do respondents and interviewers think about design and execution of the interviews?
- Should we use an EML (Extended Media List) approach or single title (ST)?
- Can we integrate the 'ever read' filter in the 'frequency'-question?
- Are respondents having problems with CASI?
- What about the transition from CASI to CAPI in the course of the interview?

Design

About half of the respondents have been interviewed at the sites of the research agencies and half at home.

Table 1: The location of the interviews

Location	Interview•NSS	NIPO
On site	EML n=5	EML n=6
	ST n=5	ST n=6
Respondent's home	EML n=7	EML n=6
	ST n=7	ST n=6

After watching the interviews on site, some minor changes in the layout of the questionnaires were made.

The Questionnaire

The content of the questionnaire is identical to the current SummoScanner. Questions on printmedia have been collected by self-completion (CASI); the interviewer asks all other questions (CAPI). The EML-questionnaire and the ST-questionnaire differed not only in the way the ‘filter’-question was asked, but had also a different frequency-question.

All titles have been grouped together by factor analysis, based on (SummoScanner) readership data. For both versions full colour mastheads of 3 to 5 titles were shown on the computer screen. When a group consisted of more than 5 titles they were randomly divided over several screens. The order of groups and the order of titles within groups were rotated randomly.

Figure 1 shows an example for a group of 5 titles, 3 weeklies and 2 monthlies: Aktueel, Panorama, Revu, Penthouse (unrecognisable masthead) and Playboy.

Playboy (monthly) and Panorama (weekly) pass the ‘ever read’ filter. For the EML version this is accomplished in two stages: first the group of 5 titles is selected and then it follows from the (Swedish) frequency question that only Playboy and Panorama are being read (figure 2). The ST version has the same frequency question as the current SummoScanner.

Average Issue Readership (AIR) then was established by the question: ‘When did you read the following weeklies/monthlies for the last time, not counting today?’ This question is identical for the EML and ST versions (figure 3).

In the example Panorama (Less than 1 week ago) and Playboy (Less than 1 month ago) are being read within the last issue period.

Figure 1: screen EML and ST

Extended Media List (EML)

Do you ever read or look into one or more of these titles? Yes/No



Single Title (ST)

Which of the following titles do you ever read or look into?
Please, mark ‘Yes’ or ‘No’ per title



Figure 2: Frequency question EML and ST

Extended Media List

Usually I read ... of the issues of ...

None - Almost none - 1 out of 4 - 2 out of 4 - 3 out of 4 - Almost every - Every

	Geen	Bijna geen	1 van de 4	2 van de 4	3 van de 4	Bijna alle	Alle
12 keer per jaar Penthouse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52 keer per jaar PANDEMA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12 keer per jaar PLAYBOY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
52 keer per jaar AKTUEEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52 keer per jaar REVU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Single Title

How many of the last 6 issues of ... did you read?

Hoeveel van de laatste 6 nummers die per blad verschijnen heeft u gelezen of ingezien ?

Geen 1 2 3 4 5 6

12 keer per jaar



52 keer per jaar



Figure 3: Recency question EML and ST

When did you read the following weeklies for the last time, not counting today?

Yesterday - *Less than week ago* - 1 to 2 weeks ago - Longer ago - Do not read after all

Wanneer heeft u onderstaande weekbladen voor het laatst
ingezien, vandaag niet meegerekend?

gisteren	Minder dan 1 week geleden	1 tot 2 weken geleden	Langer dan 2 weken geleden
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When did you read the following monthlies for the last time, not counting today?

Yesterday - *Less than 1 month ago* - 1 to 2 months ago - Longer ago - Do not read after all

Wanneer heeft u onderstaande maandbladen voor het laatst
 ingezien, vandaag niet meegerekend ?

gisteren Minder dan 1 tot 2 Langer dan
 1 maand maanden 2 maanden
 geleden geleden geleden



Results

The interview time and the general outcomes are two main elements of the evaluation of our CASI pilot. Other elements were the comprehension of the print questionnaire, the attractiveness of CASI and the use of the computer by the respondents.

Interview time

The expected time efficiency of the EML method proved to be true. Both research companies conducted the EML-interviews about four minutes faster than when ST as a CASI method was used. The print part of the ST questionnaire needs on average 21 minutes, while EML needs 17 minutes.

Table 2: Duration of the print questionnaire (in minutes)

Version	Interview♦NSS	NIPO	Average
EML	17.5	17.1	17.3
ST	20.7	20.9	20.8

Comparing CASI to CATI, which may be characterised as a ST method, we find that with its 12 minutes CATI is still the most time efficient method. The interviewer, one of the effects we want to eliminate by using CASI, mainly causes this effect. Nevertheless, CATI has still the problem that near the end the interview becomes more and more burdening and thus less reliable. Using a combination of CAPI and CASI, this appeared not to be the case. And on top of that, one of the main principles of EML is that the list of titles can be made longer, without extending time proportionally: up to five titles are evaluated by the respondent simultaneously. In particular when titles with a low penetration are added to the media list, EML performs better than ST or CATI.

The print part can be divided in 4 phases. (EML needs two phases to determine the number of screens compared to one for ST and CATI. The interview time of those two phases is added up in the next table. After the second phase the questionnaire is identical for all three methods.)

Table 3: Duration of the print questionnaire in phases (in minutes)

Question	EML	ST	CATI
1. Screens	5.1	10.5	5.1

2. Frequency	5.4	3.2	1.8
1. + 2. Total screens	10.5	13.7	6.9
3. Recency	2.6	2.6	2.1
4. Source of copy, reading time and recent issue	4.2	4.5	3.2
Total	17.3	20.8	12.2

As expected the gain of the EML is located at the beginning of the print questionnaire. Other differences could be caused only by differences in reading behaviour between the two samples.

This gain of time is of course relevant to us, but how did the respondents perceive it? For EML as well as ST there are few respondents who think that it took too long. Strangely enough, more of those respondents had filled in the EML-questionnaire rather than the longer ST-questionnaire.

Readership figures

The second criterion in our evaluation was the comparison of the readership figures. First of all, ST showed higher screen-in and recency levels than EML. Screen levels of magazines were higher for both CASI methods than for CATI. For recency the opposite was found.

Table 4: Number of titles read (at screen and recency level)

Readership	Interview♦NSS		NIPO		Method		
	EML	ST	EML	ST	EML	ST	CATI
Screens newspapers	3.2	3.0	1.9	4.0	2.6	3.5	2.7
Screens magazines	16.6	22.8	14.8	22.0	15.7	22.4	11.9
Total screens	19.8	25.8	16.8	26.0	18.3	25.9	14.5
Recency newspapers	1.1	1.4	0.8	1.8	1.0	1.6	0.9
Recency magazines	3.1	6.4	2.0	1.8	2.6	4.1	5.4
Total recency	4.2	7.8	2.8	3.6	3.5	5.7	6.3

It is difficult to compare the readership results of this pilot with other CASI experiments. In Germany (pen top computers) the readership figures were about 10% lower compared with the Media-Analyse, while in the USA (AV-CASI) the screens were 70% higher. Furthermore there is a difference in datacollection method for the current readership surveys: CATI versus (CA)PI. The (Dutch) Decisionmakers Survey 1998 (pen top) showed an increase in CASI figures comparable to those of the USA, but in this survey a much smaller number of titles have to be measured.

Evaluation

Other elements of our evaluation of this CASI pilot were the comprehension of the print questionnaire, the attractiveness of CASI and the use of the computer. At the end of the questionnaire, each respondent had to answer additional questions on the attractiveness of the CASI print part and the complete interview.

Let us look first at the comprehension of the print questionnaire. Respondents say they have no problem understanding the questions. Respondents, who had answered the print questionnaire of the SummoScanner by phone, reported in a face-to-face follow-up interview that they were some times confused by the repetition of questions. As this seems not to be the case with CASI the answers may therefore be regarded as more valid. The question order is also perceived as logical.

And last but not least: CASI software enlightens the job for respondents. They did not need many additional instructions on how to fill in the questionnaire.

The possibility of using mastheads in order to diminish title confusion proved to be an additional advantage of CASI or CAPI in comparison to CATI.

Table 5: The attractiveness of the CASI print questionnaire (% (totally) agree)

	EML	ST

Nice to do	100	77
Conveniently arranged	100	90
Clear	96	91
CASI preferred to CATI	92	87
Interesting	83	68
Good insight in reading habits	75	74
Very diversified	54	39
Forces you to think	46	50
The subject did not appeal	34	24
Is not fast or efficient	25	34
Repetition of questions is high	25	34
It took too long	21	14
Sometimes difficult to understand	13	32
Number of questions is annoying	9	9

CASI or CAPI performed very well on attractiveness compared to CATI. The interview is interesting, fun to do, it is more fun than a telephone interview, especially the self-completion part and believe it or not, respondents find the subject interesting. Table 5 shows that the CASI part of EML outperforms the ST method on many elements.

The ease of operation of the CASI print part of EML outperforms the ST method once again.

Table 6: The ease of operation of the CASI print questionnaire (% (very) good)

	EML	ST
Instruction for CASI	100	96
Clarity of titles	96	90
Readability of text	96	86
Comprehensibility of questions	92	95
Recognition of mastheads	92	85
Questions in logical order	88	90
Clicking on buttons	84	73
Clicking on answers	75	59
Ease of operation	71	64

It was possible to make a comparison between the complete questionnaire (the CASI print part included) and the CASI print questionnaire separately. Because the complete SummoScanner questionnaire includes questions about watching television and radio listening as well, it is obviously perceived as more diverse. Another interesting difference concerns the item “the subject did not appeal”. First of all, it is important to note that the percentages “agree” in table 7 are low. And secondly, the CASI score is just a bit higher. The total evaluation is quite positive: it is nice to participate and only a small group of respondents is negative.

Table 7: The attractiveness of the CASI print part compared with the complete questionnaire (% (totally) agree)

	Complete questionnaire	CASI print part
Nice to do	89	88
CASI preferred to CATI	83	89
Interesting	74	75
Very diversified	61	47
Forces you to think	50	48
The subject did not appeal	21	29
It took to long	13	17

Using CASI as the method of collecting readership figures is of course anticipating on the growing use of computers. The use of the computer is the fifth element in our evaluation. Not all respondents were able to use the computer on their own. Some of them pushed the lap top towards the interviewer, others made every effort and became enthusiastic (“Where can I buy this machine?”). The majority however said that it was easy to use the computer and the mouse. Respondents, who use a computer frequently at work or at home would prefer a larger self-completion part, the majority does not. This last outcome indicates that the combined CASI and CAPI setting are not perceived as unnatural.

The future

On the five pilot criteria of the evaluation mentioned earlier, EML performs in general better or faster than the ST method. For the second phase of our pilot, the Technical Committee of SUMMO advised the board to conduct a quantitative survey using the EML method. At this stage, the readership results (screen and recency levels) in the qualitative pilot did not play a part in the preference for EML. A proper comparison of readership figures of EML and CATI can of course only be made when sample sizes are large enough.

In the quantitative pilot two problems that were observed in the qualitative pilot have to be tackled. A disadvantage of the current EML questionnaire consists of respondents trying to give a more precise answer (‘I read these two and not the other three titles’) than ‘Yes’ or ‘No’ only as is intended by the question ‘Do you read one or more of these titles?’ When confronted with the Swedish frequency scale in the second phase, they were sometimes irritated by the fact that they had to repeat their former answer. One of the two research agencies will therefore conduct a split run where answers on the Swedish frequency scale will be set default to ‘no, not this one/reads none’, with the obligation to change at least one category for one title (otherwise the screen was not correct). The other respondents have to answer the Swedish frequency scale for each title. If there are but small differences in the readership figures for this split run, it will be obvious to use the default answer ‘no, not this one’. The task of the respondent may then be made less burdening and take less time.

A second problem is caused by the large differences in computer capabilities of the respondents. Our preference for CASI for the establishment of readership figures is mainly based on eliminating the influence of the interviewer. But if respondents are not able to use the computer on their own, the interviewer has to take over. A second split run (conducted by the other agency) should determine whether the choice of CASI or CAPI matters. Respondents will be randomly selected to answer the print part of the questionnaire by CASI or by CAPI, regardless of their computer experience. Comparison of readership estimates will give us insight in the possibility of having the respondent choosing the datacollection method, e.g. CASI or CAPI.

Epilogue

In the mean time serious doubts have arisen about the feasibility of conducting face-to-face interviews with an acceptable response rate. This may involve reconsidering the current design of the quantitative pilot after all.

