INTRODUCTION

Readership research has a pretension no market research, no matter how it is carried out, can make good. In one investigation the aim is to collect readership figures on a wide range of media which make an exact comparison of those media possible. And, subsequently, by using those figures, achieve exact cost comparisons between media. These pretensions imply that the validity of the research method must be guaranteed, and that the data contain no errors.

Most users of media research are generally prepared to admit that, at the very least, sample margins have to be taken into account; but that every interview method has a certain bias is accepted. Strangely enough, it appears that this conflict between requirements and reality meant that for a long time media research in The Netherlands was not subjected to serious criticism. Research was good as long as no one checked whether it really was good. Or, to use a different tautology: media research was accepted as long as it was accepted.

The discussion on method only began when, in the Seventies, a group of publishers declared they no longer trusted the research because the results for their magazines were too low. The most common method (the recency method: AIR based on a question on reading in the last publication interval) was never subjected to an attempt at validation.

I will not go into the ensuing discussion here, and will only note the most important points of criticism of that method:

 the demands on the respondents' memory were too great. This resulted in varying degrees of telescoping more for monthlies than for weeklies, and more for weeklies than for dailies; - replicated and parallel reading are not established and are, therefore, hidden in the Average Issue Readership.

The market research agency Inter/View BV attempted to overcome these drawbacks by using the 'first-time-read-yesterday' method in their Mediascanner. Replicated reading cannot occur in this method. The Mediascanner establishes whether more issues were read on the same day and thus the parallel reading phenomenon is brought to light. The respondents are questioned about yesterday so that the demands on their memories with regard to weeklies and monthlies is much lower than in the method used until now, and is equal for all the magazines.

However, even the Mediascanner cannot fulfill the absolute criterion formulated in the opening lines. But what can be required from the research is that the coverage of dailies, weeklies and monthlies can be measured in the right proportions and with an acceptable degree of accuracy.

But there are no advantages without drawbacks. Let me pose the problem right away: the disadvantage of the first-time-read-yesterday method is that a very extensive sample is required, certainly if one wants to measure monthlies as well. An example:

Say a monthly with a circulation of 100,000 has, on average, five readers per copy (ie 500,000 readers per issue). The magazine is read on average three times (on three different days). Thus, one issue of the magazine is taken up 1,500,000 times. That is an average of 60,000 per day (the weekend is counted as one day). This figure is around 0.6% of the total population of 10.8 million people aged 15 and older in The Netherlands. That means 0.2% of the respondents looked at the issue they read yesterday for the first time. That is 20 cases in a quarterly sample of 10,000 respondents. (This means that even in a year sample

of around 40,000, calculating reading probabilities at title level can lead to unstable results. For this reason, these calculations in the Mediascanner are carried out at group level.*)

In other words: every mistake which is made has great influence on the calculations which determine the Average Issue Readership (these can be interviewers' errors, respondents' oversights, but also processing mistakes). Therefore, great care must be taken to prevent errors. The interviewers' training and instructions are of vital importance; fortunately, interviewing from one central location provides an opportunity for continual back-up of the interviewers and a constant check on fieldwork.

Besides the prevention of errors which can affect the accuracy of the answers, it is important to be sure that this method actually measures what it is supposed to measure.

As a critical consumer of the Mediascanner data, I have scrutinised all of the components of the Mediascanner and, in co-operation with Inter/View, have carried out experiments in an attempt to validate the method, and in which a number of suggestions for improving the system were also put to the test.

The following components were studied:

- organisation of the project
- the sample system
 interviewers' training
- fieldwork back-up and control
- questionnaire introduction
- the media questions
- checks on the data
- weighting procedures
- data-processing
- method of reporting.

Improvements were indeed made on most of the points. The most radical are the setting up of an improved sample system, a new weighting procedure and changes in the media questionnaire.

This paper is confined to the validation experiments with regard to the central media questions.

THE MEDIASCANNER

The Mediascanner is a computer-directed continuous media-investigation among telephone subscribers which has been conducted by Inter/View BV in Amsterdam since the end of 1982. (de Hond and Huzen, 1983)

Every day (Monday to Saturday) around 125 interviews are carried out with people aged 15 years and older. The reading behaviour of respondents as regards newspapers and periodicals is determined by the Mediascanner via the first-time-read-yesterday method. At the same time, television (commercial) viewing and listening to (advertising on the radio is established (watched/ listened yesterday). The other questions on newspapers and magazines concern the reading frequency (how many of the last six issues were read), the reading time (how many minutes were spent reading yesterday, and the way the publication was obtained (subscription, news-stand sales, reading-circle portfolio*, others).

Besides the media questions and the questions on the respondents' characteristics, the Mediascanner contains a number of product questions which are included on the instructions of individual clients. Customers can also request the addition of extra questions for a period of a week, two weeks, etc.

^{*} The information of a group of similar magazine titles is added up. Reading probabilities are calculated as if the group of magazines were one title. The group reading probabilities are then assigned to each magazine of the group.

^{*} Selection of magazines in a portfolio which a subscriber receives every week (the publications may be one, two, etc. weeks old, depending on the subscription price one is prepared to pay).

The majority of the media data consumers is made up of the larger advertising agencies in The Netherlands, the newspaper publishers (through their marketing organisation CEBUCO) and a number, but not all, of the magazine publishers.

THE QUESTIONS IN THE MEDIASCANNER

The media questions in the Scanner cover the dailies first, then the magazines. In the questions on the dailies, the following is established:

- which newspapers people in the respondents' household subscribe to, which ones are bought at news-stands, and which ones he/she looks at or reads in some other way;
- the respondent is then asked which of the newspapers he/she ever reads or looks at (and/or subscribes to or buys at news-stands) were read or looked at the day before. The titles are named one by one; the computer program ensures the sequence is rotated;
- then come the questions on reading frequency and reading time. For magazines the last question in this series is whether yesterday was the first time the respondent had read or looked at that particular issue of the magazine. This question is not asked on newspapers. It is assumed newspapers are read within one day, thus 'read yesterday' is equal to 'read yesterday for the first time'.

The magazines differ further from the newspapers in that they form a collection of very diverse groups of media. This means the respondents cannot simply be asked which magazines they ever read or look at. Therefore, a different approach was selected for the magazines.

For each category (radio/TV guides, current affairs weeklies, women's weeklies, sport magazines, etc) a few titles are selected at random as examples. These are read to the

respondent who is then asked which magazines in that particular category he ever reads or looks at.

Subsequently, the questions on subscriptions, news-stand sales, etc, are asked (also about the magazines in the household the respondent does not read!). Titles of magazines which do not fit into any particular category are enumerated in all cases. For the rest, the procedure is the same as for the newspapers.

SETTING UP THE VALIDATION EXPERIMENT

In November 1984 a so-called intensive interview was linked to 87 interviews in a 'Shadow Mediascanner' which had been designed to try out a new sampling system. The intensive interviews consisted of follow-up questions on one or more of the read yesterday titles in the Mediascanner. The validity of the responses to central reading questions was checked against questions on when the particular title was read, what the respondent did before and after reading, on the reading frequency of a copy of the magazine and of the issue read the day before, on how it was obtained, etc. For a total of 160 cases the follow-up information was gathered. The interviews were conducted by the most competent interviewers who had been given special training beforehand. The interviews were all monitored by a project leader who immediately scored the intensive interview section. Moreover, the questions in the intensive interview were structured as far as possible. Depending on the clarity of the answers, the interviewers were allowed to use their initiative and probe further.

The number of intensive interviews conducted in this way was sufficient to show whether a clear bias occurred in responses to media questions in the scanner section, and to what degree inconsistent response occurred. The number was insufficient however, to provide a picture of distortions for each category of magazines. For this

reason, but also because the better interviewers were involved in this experiment, it was decided to include the follow-up questions, in so far as they could be integrated into the programme, in the normal Mediascanner for a few weeks. To avoid over-burdening the interview, the follow-up questions were asked on only one read yesterday title.

This follow-up experiment took place during the last week of February and the first week of March 1985, and for the monthlies during the succeeding three weeks to collate sufficient cases.

It will be obvious that the scope of the second experiment was far more limited than that of the first. In view of the special attention given to the first experiment (the more competent, specially trained interviewers, the continual monitoring and back-up, and the instructions to probe further if the response was unclear), one may assume that the response inconsistency which came to light during that experiment was mainly due to the questions themselves.

In the second experiment, the inconsistency level will be determined in part by the production oriented attitude in a normal interview situation, by the lower average standard of the interviewers, and by the lack of special instructions and individual back-up during the experiment.

THE READ YESTERDAY QUESTION

The intensive interview (November 1984) showed that in 2% of the cases where people said they had read a particular title the day before, this turned out to be incorrect. However, such cases of incorrect response usually came to light in the computer-directed media section, for example when the question on the length of time spent reading was asked, or the question on whether yesterday was the first time the

respondent had read or looked at that particular issue. But the programmed routing of the questionnaire did not allow the incorrect response to be corrected afterwards. Thus, it would appear that over-estimation of the read yesterday did not occur very often, that it generally comes to light during the scanner interview, and that it should be corrected when it does occur. A technical solution for this correction has been found and the results are visible in Table 1 (first five days after introduction, end of April '85, N=640).

TABLE 1 Did not read or look at yesterday after all

wh re	of those no ever ead or nok at	% of those who initially claimed to have read or looked at yesterday
Dailies Radio/TV guides Current affairs weeklies Women's weeklies Other weeklies Monthlies	0.6 1.5 0.3 0.7 0.7 0.9	1.3 2.6 2.5 3.4 3.7 12.9

In the first column of the table, the high percentage for the radio/TV guides compared with the other kinds of magazines, is striking. Many people look through these guides every day as part of their daily routine. When asked if they read such a magazine the day before, most people say yes automatically, whereas if they really think about it they sometimes come to the conclusion that for some reason they did not actually do so.

The second column shows the percentage by which the read yesterday result decreases after correction.

The correction has a relatively high influence on the monthlies in particular, and it will clearly influence the Average Issue Readership. Thus, the introduction of the correction option is an important addition to the Mediascanner.

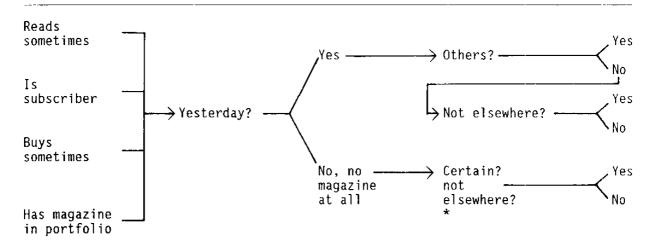
The reverse situation can also occur: respondents forget to mention titles they read yesterday. In the Mediascanner the magazines people ever read or look at (and/or obtain via a subscription or news-stand sales) are enumerated one by one when the read yesterday question is asked. Then the respondents are asked to think carefully whether there were any other magazines (or if they had not read any titles at all: if there were not any magazines) they read yesterday. this way we hope to prevent the respondents from forgetting read yesterday titles. Nevertheless, in an analysis of 462 Mediascanner interviews (with about 1150 read yesterday magazines), interviewers discovered five cases where a title which had not been mentioned had, in fact, been read

by the respondent the day before. These were all cases which came to light during the Mediascanner interview; in other words, these were all cases where the respondent realised he/she had forgotten a read yesterday title during the interview. In practice, therefore, more titles will be overlooked.

The enumeration of the titles by the interviewer is undoubtedly a good way to help minimise the chance of forgetting read yesterday titles. As mentioned above, in the filter question: 'which of the following magazines do you ever read or look at?', only a few titles per group of similar magazines are enumerated. It would be better to name all the titles.

This was done for a period of time in the Marketscanner which runs parallel to the Mediascanner. A comparison between the two investigations showed that the figure for ever reading or looking at was much higher for some magazines (especially the smaller ones) if all the titles were named.

FIGURE 1



^{*} On this diagram I have tried to depict the interesting phenomenon of filter questions that do not function as filter questions in all instances. Through putting probe questions on yesterday reading to the respondents, incidental yesterday reading emerges that was not classified in one or more of the categories on the left. On the diagram this phenomenon is rendered by the line at the bottom that comes out of nowhere.

Although this meant the length of the interview was increased, it was decided that henceforth all of the magazine titles in the Mediascanner would be enumerated.

In order to further minimise the chance of overlooking read yesterday magazines, the Mediascanner probe questions which are asked on read yesterday have been made more pointed and comprehensive. First the respondent is asked if there are any other magazines he/she read or looked at the day before (other than the titles mentioned in the ever reads question). Then he/she is asked whether he/she read or looked at a magazine other than at home. For each category of magazines the most obvious reading places for that particular category are enumerated as examples (more emphasis is placed on reading elsewhere because we got the impression from the intensive interviews that reading elsewhere was under-represented in the Mediascanner).

If the respondent says he/she did not read any magazine at all yesterday, the next question is if he/she is certain that is the case. Here again the most obvious reading places are enumerated. (See Figure 1) The read yesterday question and the probe questions are asked separately on newspapers, radio/TV guides, and other magazines. Until recently, the radio/TV guides were included in the magazine category for the read yesterday question. However, the follow-up questions showed that radio/TV guides were frequently overlooked, apparently because some respondents did not consider consulting this type of guide for the programmes as reading or looking at a magazine. Therefore, we decided to treat these quides as a separate category so that during the probe questions we can make clear that consulting the guide for the programmes also counts as reading.

Finally, to improve the correctness of the responses, it would be useful, as an introduction to the read yesterday question, to find out how the respondent spent the day before. At present we have to make do with the phrase: 'If you think carefully about the things you did yesterday ...'.

THE FIRST-TIME-READ QUESTION

The results of the intensive interviews (November 1984) showed that, in contrast to the responses in the Mediascanner section, 6% of the respondents had not looked at the read yesterday issue for the first time the day before; the reverse applied for the same percentage - 6%. When listening to the recorded Mediascanner interviews, we had already observed that some respondents did not really understand the question: 'was yesterday the first time you read or looked at that issue of xxx?' The question is certainly brief (which is in itself always preferable), but a drawback was that it lacked the response alternative 'or had you looked at it before?' During a follow-up experiment we decided to include in the Mediascanner two alternative questions, each for half of the time:

Variant A 'was yesterday the first time you read that issue of xxx, or had you looked at it before?'

Variant B 'Had you looked at that issue of xxx before yesterday, or was yesterday the first time?'

As noted above, in this second experiment (February/March 1985) the follow-up questions were asked on only one title. This resulted in 468 cases for weeklies and 517 cases for monthlies. The respondents were asked when they read the magazine the day before, what they had done beforehand and what they did afterwards. Subsequently: where they read the magazine; if they read other magazines then; which section of the magazine they read; if they really read it or just glanced through it; whether the issue they read yesterday was the most recent or an older issue.

Afterwards a few questions specifically aimed at verifying the responses to 'first time yesterday' were put to the respondents. These were the questions:

'How do you generally read xxx? Do you read it all at the same time, or do you usually read one section and the other section later?'

If more than once: 'How many times do you generally look at a particular issue of xxx before you have finished it or dispose of it?'

'What happened yesterday? How many times had you looked at this issue of xxx before?'

The last question is the real check question.

Table 2 links the results of the two question alternatives with the results of the check question.

When checking a question by means of other questions we must assume that the responses to the check questions will not be without bias either. And this is certainly the case in this follow-up experiment because, in fact, these were ordinary Mediascanner interviews with a few follow-up questions. The function of the follow-up questions is only to make the respondent more conscious of the reading situation on which he/she is being probed. The aim of the experiment was to establish to which extent in a normal interview situation, the response to the first time read yesterday question is consistent with the check question.

Table 2 shows that both variants lead in varying degrees - to inconsistencies. Variant A ('was yesterday the first time...') led to a higher result for both weeklies and monthlies than the check question. For the respondents who had looked at the magazine before, the consistency level is higher than for the respondents who indicated they had seen that particular issue of the magazine for the first time the day before.

TABLE 2 Check first time read yesterday

	Varian Yes- terday first time	Not	Varian Yes- terday first time	Not
Weeklies Not read before	N=113 %	N=116 %	N=121 %	N=118 %
(first time	71	18	84	36
Read before (not first time) First time:	<u>29</u> 100	<u>82</u> 100	<u>16</u> 100	<u>64</u> 100
scanner min experiment	us + 5		-9	
<i>Monthlies</i> Not read before	N=135 %	N=178 %	N=80 %	N=120 %
(first time) 67	15	65	26
Read before (not first time) First time:	33 100	<u>85</u> 100	35 100	74 100
scanner min experiment	us +5		-2	

Variant B ('had looked at that issue of xxx before yesterday ...') produced a lower result than the check question, although to a lesser degree for monthlies than for weeklies. For the weeklies the consistency level is higher among those respondents who indicated they had read the issue for the first time yesterday; for the monthlies, those respondents who had not seen that issue for the first time the day before, answered more consistently. For a further subdivision of the weeklies and monthlies we added together the results of the

TABLE 3 Check first time read yesterday - types of magazines

Weeklies		Total consis- tent %	Yest. 1st time consis- tent %	Yest. not 1st time con- sistent %	Yest. 1st time acc. to scanner %	Yest. 1st time acc. to exp. %	Diff. scanner in rel. to exp. %
Women's weeklies Glamour magazines Family magazines Others	(N=185) (N= 93) (N= 92) (N= 98)	82 62 66 83	84 60 75 84	81 65 51 80	41 48 62 58	45 47 65 57	-4 +2 -3 +1
Monthlies							
Dressmaking and needlecraft mags. Tourist magazines Others	(N≃ 86) (N= 74) (N=225)	80 68 72	60 61 66	91 73 77	35 45 47	27 42 43	+8 +3 +4

TABLE 4
Check yesterday first time - reading characteristics

	Total	Yest. Ist time	Yest.	Yest.	Yest.	Diff.
	consis- tent %	consis- tent %	not 1st time con- sistent %	lst time acc. to scanner %	lst time acc. to exp.	scanner in rel. to exp. %
(N=849)	74	72	76	47	46	+1
(N= 80)	69	74	61	59	60	-1
(N=178)	74	66	80	56	47	+9
(N=591)	75	73	77	43	44	-1
(N=348)	75	62	84	38	34	+4
(N=287)	71	75	66	51	5 5	-4
.(N=214)	78	80	75	57	56	+1
(N=418)	78	73	82	40	40	0
(N=158)	73	60	84	42	35	+8
(N= 80)	63	69	56	49	56	-8
(N=193)	73	79	61	64	65	-1
(N=553)	76	80	75	48	50	-2
(N=296)	71	61	79	45	39	+6
	(N= 80) (N=178) (N=591) (N=348) (N=287) (N=214) (N=418) (N=158) (N= 80) (N=193) (N=553)	% (N=849) 74 (N=80) 69 (N=178) 74 (N=591) 75 (N=348) 75 (N=287) 71 .(N=214) 78 (N=418) 78 (N=158) 73 (N=80) 63 (N=193) 73 (N=553) 76	% % (N=849) 74 72 (N=80) 69 74 (N=178) 74 66 (N=591) 75 73 (N=348) 75 62 (N=287) 71 75 (N=214) 78 80 (N=418) 78 73 (N=158) 73 60 (N=80) 63 69 (N=193) 73 79 (N=553) 76 80	% % % (N=849) 74 72 76 (N=80) 69 74 61 (N=178) 74 66 80 (N=591) 75 73 77 (N=348) 75 62 84 (N=287) 71 75 66 .(N=214) 78 80 75 (N=418) 78 73 82 (N=158) 73 60 84 (N=80) 63 69 56 (N=193) 73 79 61 (N=553) 76 80 75	% % % (N=849) 74 72 76 47 (N=80) 69 74 61 59 (N=178) 74 66 80 56 (N=591) 75 73 77 43 (N=348) 75 62 84 38 (N=287) 71 75 66 51 (N=214) 78 80 75 57 (N=418) 78 73 82 40 (N=158) 73 60 84 42 (N=80) 63 69 56 49 (N=193) 73 79 61 64 (N=553) 76 80 75 48	% % % % (N=849) 74 72 76 47 46 (N=80) 69 74 61 59 60 (N=178) 74 66 80 56 47 (N=591) 75 73 77 43 44 (N=348) 75 62 84 38 34 (N=287) 71 75 66 51 55 (N=214) 78 80 75 57 56 (N=418) 78 73 82 40 40 (N=158) 73 60 84 42 35 (N=80) 63 69 56 49 56 (N=193) 73 79 61 64 65 (N=553) 76 80 75 48 50

variants because otherwise the number of respondents would have been very low.

The degree of consistency turned out to be lower for glamour and family magazines than for other kinds of weeklies. This is probably due to the somewhat 'superficial' nature of these magazines and therefore people are more inclined to make oversights when trying to recall Recent Reading behaviour. Among the monthlies, the tourist magazines showed a relatively low consistency level. (Table 3)

In addition, the results indicate that the consistency level:

- is somewhat lower for magazines read infrequently than for those which are read frequently
- that the responses of those respondents who had glanced through the magazine the day before and who also read a piece in it, were less consistent than those of respondents who had either only read this magazine (higher percentage not first time), or had just glanced through (a part of) it (higher percentage first time)
- that readers who had read an older issue of the magazine yesterday, answered the first time question less consistently than those who had read the most recent issue of the magazine the day before
- that the (more superficial) readers of magazines from a reading-circleportfolio had a lower consistency level than the other readers.

In various characteristics (Table 4) we also see a great difference in the consistency level first time and not first time (we examined the reading characteristics separately, as if they were not related. Of course there is an obvious correlation between the various characteristics. However, the number of respondents is too low to produce a meaningful interpretation of the consistency levels of the combinations).

CONCLUSIONS

In reviewing the results, we can conclude that establishing when an issue of a magazine is first taken up by means of the method applied up to now, does not produce truly satisfactory results for a number of types of magazines. We can only be really satisfied when, in such a check as we did, the consistency level is at least 95%, and the mistakes which are made largely cancel each other out. For the present, it was decided to use both of the variants for the first time read question, putting one variant to one respondent and the other to the next respondent, turn and turn about.

One of the other changes brought about in the Mediascanner, concerns the inclusion of a question immediately before the first time read question. This new question is on whether the read yesterday issue is the most recent issue or an older one. The advantage of adding this question (beside the useful information it produces) is that the respondent has the space of one question to realise the interview concerns now the issue read yesterday. The preceding questions all deal with the magazine and not with a specific issue.

Another important change is that the reading frequency question, which originally came between the read yesterday question and the question on time spent reading, had been moved back, and now comes after the first time read question. This has been done because respondents could become confused if the interviewer moves from a question about yesterday's reading to a question with a different time span (how many of the last six issues read), and then continues with another question about yesterday. Now, all of the questions on yesterday are dealt with first, before the reading frequency question is asked. Other adjustments have already been noted:

more attention to interviewer back-up and training

- the enumeration for the magazines of all the titles when the respondent is questioned on reading or looking at sometimes
- the correction of initially incorrect responses to the read yesterday question
- the questions on reading behaviour outside the home have been extended so that the chance respondents may forget a read yesterday title is kept to a minimum.

REFERENCES

De Hond, Maurice and Huzen, Walter (1983) 'New approach to readership surveys' (Montreal Proceedings).

APPENDIX

Question wording of the three central questions

'Ever read or look at' question

I am now going to enumerate the titles of a number of (weekly, two-weekly, monthly) magazines. Could you please tell me which of these magazines you ever read or look at?

The following categories are treated

one by one (all titles enumerated in the new Scanner).

Radio/TV guides
Current affairs weeklies
Women's weeklies
Other weeklies
Tourist magazines
Sports magazines
Dressmaking and needlecraft magazines
Hobby magazines
Women's monthlies
Men's monthlies
Other monthlies

'Read yesterday' question

I will name the titles of the magazines you said you ever read or look at. If you now try to remember what you did yesterday and where you have been: can you please tell me which of the following magazines you read or looked at yesterday, however brief? (After this question several probe questions on yesterday are asked)

'First time read' question

Variant A and B.

The wording of the original question was:

'Was yesterday the first time you read or looked at that issue of xxx?'