

2.3 Evaluating alternative questioning procedures for estimating audiences

FOREWORD

Since magazine audience research started on a national basis in the 1930s, many questioning approaches have been evolved for estimating audiences. These approaches have included cover recognition, through-the-book item recognition, through-the-book editorial interest, abridgements of through-the-book methods, claimed frequency of reading recall using rosters of magazine names, recent reading recall and so on.

The reason that so many different questioning approaches have been developed derives partly from the fact that the research frameworks within which magazine audiences have been studied have varied. A procedure that is optimal when only one magazine is under study may not serve as well when a few are included, and a procedure that works well for a few magazines – say 10 or 12 – may not work as well as another procedure for a large number such as 50 or 80. Also, a procedure that provides good estimates for audiences defined in one way, such as primary readers, may be surpassed by another procedure when the audience is defined differently, as total readers. Because no one procedure is best for all situations, it has been necessary to conduct studies utilising techniques adapted to specific research purposes.

The research framework of interest to Starch INRA Hooper Inc, both then and now, is that of a syndicated service estimating and describing the characteristics of the audiences, both primary and total, of a large number of magazines. The research that is reported here was undertaken in 1970 in order to re-examine the Starch 'cover recognition' technique and evaluate it and other questioning approaches within this research framework.

The essence of the study was to determine the correctness with which readers and non-readers are classified. In audience research, a satisfactory method for classifying readers and non-readers carried out with a good sample, good field execution and good processing and estimation procedures must produce good audience estimates.

SAMPLE DESIGN

The population for this study was individuals 18 years and over living in private households in urban areas of the US. In total, 3158 people were interviewed. The purpose of the research was to make internal comparisons of

questioning methods, not to project estimates or levels of audience. This consideration affected both sample size and sample design.

For this research, six concurrent studies were conducted. Each study employed a different kind of questioning about reading.

Equivalent samples were established for the six questioning methods in the following manner: specific locations for interviewing were selected by probability methods down to the blocks in which interviews were made. The selection of locations was divided into three stages. The first stage consisted of a selection of counties which were drawn at random with probability proportionate to population from all counties in the United States. The second stage consisted of a selection of urban communities or localities within each county, with the selections again made with probability proportionate to populations living in different sizes of community within the counties. The third stage consisted of a selection of specific points within communities. In cities of 50,000 population and over, for which Census block statistics are available, blocks were selected at random with probability proportionate to population. In smaller towns and cities, for which block statistics are not supplied by Census, blocks were randomly selected with equal probability from maps. Interviewers were given a specific starting household and a prescribed method of contacting households in each interviewing point. A total of 576 interviewing locations was selected. Each was assigned to one of the questioning procedures in the study. Controls for sex, age and employed women were used in order to insure equivalent representation of the various groups in each sample. These assignments were made in accordance with Census statistics.

QUESTIONING PROCEDURES

The six methods of questioning about reading of publications for estimation and description of audiences are referred to in this paper as:

- (I) cover recognition method.
- (II) cover recognition method – using six-month screening and reminder questioning about reading frequency.
- (III) cover recognition method – using six-month screening and table of contents.
- (IV) skeletonised issue method – six-month screening – editorial interest questioning.

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(V) roster recall method.

(VI) full issue recognition method – using six-month screening.

Method I above was the procedure that had been used by Starch regularly in its series of Consumer Magazine Reports up to 1970. Methods IV and V are methods that have been used in syndicated research covering many publications since the 1960s. Methods II and III were new questioning procedures tested in this study to see whether they provided an improvement over the regular Starch Cover Recognition method in classifying individuals as readers or non-readers of issues of publications. Method VI, Full Issue Recognition, is in concept the simplest and most straightforward procedure for questioning employing a recognition procedure; but it was anticipated that this method could not be applied with a very large number of publications. This method was included to provide a framework for interpreting the results obtained by other methods.

It should be noted that the Recent Reading method was not studied since it was not in use as a syndicated service in the US at the time.

(I) Cover recognition method

The interviewer starts with this comment: "Now I'm going to show you some magazine covers. As you look at each cover, will you please tell me if you, yourself, have looked into or read that particular issue, either at home or elsewhere?"

The interviewer carries a book of magazine covers which contains the cover of one specific issue of each magazine studied. The interviewer opens the magazine cover book and pointing to the first magazine cover says: "Did you read or look into this particular issue of (magazine name)?"

To be classified as a reader of that issue, the respondent has to answer "yes" without qualification. If the respondent's answer is "not sure" or "don't know", the respondent is classified as a non-reader. The procedure is then continued for each subsequent magazine. The cover with which questioning starts and the order of showing covers is changed from interview to interview.

(II) Cover recognition method – using six-month screening and reminder questioning about reading frequency

In this procedure, respondents who have not looked into any issue of the particular magazine for a long period of time are screened out. The interviewer starts with the following comment: "I have in this book the names of some magazines and publications, and I would like to

know which ones you may have read or looked into during the past six months or so . . . either at home or someplace else." The interviewer shows a book which contains a reproduction of each magazine's logotype and asks: "Have you or have you not read or looked into a copy of (magazine name) during the past six months or so . . . or aren't you sure?" Respondents who are certain that they have not looked into any copy of a particular magazine in the past six months are classified as not having looked into the specific issue under study and are asked no further questions about the magazine.

For the remaining respondents, the interviewer says the following: "People usually read some magazines more regularly than they do others," and asks the following question: "How about (magazine name). Do you read or look into every or almost every issue of (magazine name), only about half of them, or do you just read it once in a while?" The purpose of this question is to cause the respondent to give some thought to his recent behaviour with regard to the publication. The responses obtained for this question are not tabulated or used in the estimating procedure. The interviewer then shows the respondent the cover of the specific issue in the Magazine Cover Book and asks: "Here is the cover of a recent issue of (magazine name). Could you tell me whether you have read or looked into this particular issue?" Respondents indicating they have "Surely looked into the issue" are counted as readers of the issue.

The two questions are asked consecutively for each publication which the respondent indicates he has looked into in the last six months, or he is not sure about.

(III) Cover recognition method – using six-month screening and table of contents

An identical six-month screening to that utilised in Method II above is used. The following statement is read to respondents who pass the screening question: "Editors often select articles to appear in their publications which have appeal to certain kinds of people. For example, some articles may be particularly interesting to men, while other articles may appeal more to women, still others may appeal to teenagers, while some articles may be of interest to more than one group."

For each publication for which the screen has been passed, a respondent is shown the cover and table of contents of the issue under study and is asked: "Please look at the cover and table of contents of (magazine name). Would you please look at this card and give me the number or numbers of the groups of people that you feel this issue might appeal to most?"

The interviewer hands the respondent a card titled "Magazine Group Appeal Card" which lists the following items:

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1. Working Women
2. Housewives
3. Mothers with Young Children
4. Single Men
5. Married Men
6. Teenage Girls
7. Teenage Boys
8. Other (specify).

The respondent examines the cover and table of contents in order to answer the question. The purpose of this question is to create a reason for examining the table of contents. The responses to this question are not tabulated.

Following this question, the respondent is asked the key question to determine readership: "Could you tell me whether you have read or looked into this particular issue?" Respondents who claim certainty of reading are counted as readers.

(IV) Skeletonised issue method – six-month screening – editorial interest questioning

A six-month filter is employed. There is a slight modification in the wording of the screening question from Methods II and III:

"On these next few pages are the names of magazines or publications we are particularly interested in. I'd like you to look at each of them very carefully and for each title, tell me if you have read or looked into the magazine during the past six months or so . . . even if you picked it up once or twice and just looked at a few pages."

The following statement is read to respondents passing the screen: "Now we come to what many people think is the most interesting part of the interview . . . we're going to look at some articles and features taken from different magazines, so that you can tell me about the kinds of things that are most interesting to you personally." These respondents are asked to examine a selection of the editorial contents of an issue of each publication for which they have passed the screen. A maximum of ten major editorial items is shown from each magazine; occasionally an issue does not contain ten distinctive items.

Respondents are questioned as follows: "Here is a copy of (magazine name) that you may or may not have had a chance to see. As we go through it, please point out any article or feature that looks interesting to you."

If the respondent, in the course of looking through a skeletonised issue, attempts to commit himself to having read or not read the issue or specific features which are being shown, the respondent's attention is brought back to the ostensible 'interest' focus of the questioning by

saying: "We are just as interested in your opinions whether or not you've seen this before."

The purpose of this questioning is to provide a reason for the respondent to look at the selected items in the issue. The responses are not tabulated.

After item review for 'interest' questioning, the readership question is asked: "As you know, articles and features in different magazines often look very much alike. Now that you have been through this magazine, could you tell me whether this is the first time you happened to see this particular issue or have you read or looked into it before?" A person is classified as a reader if he states that he has surely looked into the issue.

(V) Roster recall method

This method is self-administered by the respondent. The interviewer makes the following comment: "Now we have a few questions about magazines that we'd like to have you fill out yourself."

The interviewer hands the respondent the questionnaire, on which the respondent proceeds to record his answers. If the respondent has difficulty in understanding some points of the questioning, the interviewer assists. Magazines published weekly are listed first, followed by bi-weekly magazines, monthly magazines, bi-monthly, and finally quarterly magazines.

For weekly magazines, the questions, in the sequence in which they appeared on the questionnaire, were as follows.

"Below is a list of magazines that are put out once a week. Opposite each magazine name, please check the column that best describes how many issues of the magazine, if any, you personally have *read* or *looked into* in the last four weeks, *for the first time*. This includes all issues of each magazine that you have looked into during the last four weeks, even if they came out some time ago, and you just got around to reading them in the past four weeks."

"For each magazine you have never read, check the first column opposite the magazine name."

"For each magazine you have read before but have not read any issue in the past four weeks, check the second column opposite the magazine name."

"For each magazine you have read in the last four weeks, check the column that tells how many issues you have read or looked into in the last four weeks."

The same question sequence was followed for the other publication frequencies, with the initial 'screen' being 'eight weeks' for bi-weeklies, 'four months' for monthlies, 'eight months' for bi-monthlies and 'the last year' for quarterlies.

On the questionnaire, spaces are provided for

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recording responses in the following sequence: have never read magazine; have read magazine, but not in last (time period questioned about above); number of issues read (1, 2, 3, 4 or more) in questioning period.

Unlike the previous methods in which a respondent is classified as a reader based on the certainty of reading a specific issue (after identifying a cover or a skeletonised issue), average issue audience, with this method, is calculated in the following manner: In the tabulating stage, each respondent is assigned a measure of reading derived from reported reading behaviour of each publication studied. This measure is either 4/4, 3/4, 2/4, 1/4 or 0, depending upon whether the respondent reports reading 4, 3, 2, 1 or 0 issues for the first time during the stated time period. Respondents reporting that they have never looked into a publication or have not looked into it within the last four time intervals (as indicated on the questionnaire) are classified into the 'zero' group.

These measures determine the probability that an individual is a member of the average issue audience. For example, when a magazine is asked about by the 'Roster recall' method, an individual who reports reading four issues is included in the average issue audience with unit (1.00) measure, whereas individuals who read 3, 2 or 1 issue respectively have a 0.75, 0.50 or 0.25 weight in the average issue audience. In other words, the average issue audience is comprised of all individuals who report reading all four issues plus three-quarters of the number of individuals who report reading three issues plus one-half of the number of individuals who report reading two issues plus one-quarter of the number of individuals who report reading one issue.

(VI) Full issue recognition method – using six-month screening

The six-month screening question employed in Methods II and III is again utilised in this method.

A respondent who passes the screen for a publication is asked the frequency of reading question used in Method II (read every issue, half the issues, once in a while). The purpose of this question is to cause the respondent to give some thought to his recent behaviour with regard to the publication. The responses obtained for this question are not tabulated or used in estimation.

In this method, the respondent examines a complete issue of each publication for which he passes the screen.

Since it would be virtually impossible for an interviewer to carry full issues of all 60 publications studied, a sampling of 19 was selected for full issue display.* However, all 60 publications were included in the screening question.

The questioning procedure used is as follows: "As you know, articles and features in different issues of magazines often look very much alike. . . . Will you glance through this copy of (magazine name) and tell me whether this is the first time you happened to see this particular issue, or have your read or looked into it before?" The copy presented for examination is bought locally and is therefore the appropriate local edition. The respondent is free to examine the copy to the degree necessary to make a decision about whether he has looked into it. Respondents indicating they have 'surely seen' the issue before are classified as readers.

EVALUATIVE PROCEDURES

The major purpose of this methodological experiment was to test the accuracy of respondent claiming of readership or non-readership of publications as these responses are elicited by various questioning procedures.

To this end, two evaluative techniques were used. The first technique involved a display of three distinctive editorial items for each of five magazines. The purpose of this technique was to compare claims of readers and non-readers as elicited by the various questioning procedures. If an individual recalls having seen one or more of the three items taken from an issue, there is greater likelihood that he has previously looked into the issue than if he does not recall any. Conversely, if a person has looked into an issue, there is greater likelihood of claiming to have seen an item than if he has not looked into the issue; claiming in the latter case would reflect simply random confusion which results when items are shown out of context. It is possible, of course, for someone to have been in the audience of an issue and still to have missed these items or forgotten them, just as it is possible for a non-reader to be confused when confronted with material out of context. Therefore, responses about the items can be expected to have a positive relationship to actual reading of the issue. The stronger the relationship, the more accurate the classification of readers achieved by the questioning method is likely to be. Further, whatever the limitations of the procedure, they apply equally for all questioning methods in the text.

The second evaluative technique involved asking the respondent to examine entire issues of five of the publications studied. It is generally acknowledged that when a small number of publications is involved, issue

* Subsequent experimental research done by Starch INRA Hooper in 1976 in connection with the Elite Study demonstrated that there is a limit of about 20 publications that can be effectively measured by the full issue through-the-book technique.

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readers are most accurately defined by giving respondents the opportunity for recognition of all or almost all the contents of the issue within context. The reason for this is that there are many different ways for someone to look into a publication. For example, he may simply flip through it, skipping many pages, or he may look at it casually from front to back or from back to front, or he may look only for a special feature that is turned to from the table of contents, or he may read most or all of the editorial material, etc. If a person is handed a copy and asked to look through it in his own way to see whether or not he previously read or saw something in it, he is thereby afforded the best opportunity to remember and recognise the issue and a close approximation to accurate response can therefore be expected. By comparing the reader and non-reader claims, as determined by the full issue inspection, to the original readership claims for the five magazines, the comparative accuracy of each questioning approach can be evaluated.

Each respondent is questioned on one test method and both evaluative methods. The detailed questioning operations are described below.

Editorial item evaluator

Readers and non-readers (including respondents not passing the screen) of each of five magazines studied were shown three editorial items which had appeared in the issues being carried. The items were selected to be, insofar as possible, distinctive; they were not regular features of the publication and were chosen to be as different as possible from other articles that had appeared recently in publications.

These items were removed from the issue and placed in a 'Magazine article book' which was a large looseleaf book with acetate pages. There was no indication on the editorial pages of the magazines or dates of issue from which the items had been taken. The 15 editorial items were placed in the Magazine article book in such a way as not to have items from the same magazine appear in consecutive positions. The five magazines used for this procedure were *Ladies' Home Journal*, *Look*, *McCall's*, *Life* and *National Geographic*.

Respondents were asked the following question: "I have here some articles that have appeared in different magazines recently, and I'd like to know if you happened to see any of them." The interviewer showed the respondent the first item and asked: "Have you, or have you not seen this before now . . . or aren't you sure?"

Full issue evaluator

The second evaluator involved having respondents examine full issues of five other magazines to determine whether the issues had previously been read.

The five magazines used for this procedure were *Better Homes and Gardens*, *Family Circle*, *Good Housekeeping*, *Reader's Digest* and *Time*.

The questioning sequence was as follows: "Would you look through this issue of (magazine name) as you normally would if you were to pick it up somewhere for the first time. Does this issue of (magazine name) strike you as a very interesting, somewhat interesting or not very interesting issue?" . . . and finally, "Now that you've been through this magazine, could you tell me whether this is the first time you happened to see this particular issue or have you read or looked into it before?" The procedure of allowing the respondent to examine the issue was like that used for classifying readers in Method VI. Therefore, this procedure was employed in the interviews for Method VI only when respondents did not pass the six-month screen for one of the five publications. Also, it was found in pretest that rapport with respondents frequently broke down when they were asked to examine issues for validations after they had been subjected to 'interest' questioning in Method IV, and therefore in this interview also, this evaluation method was applied only in cases where the six-month screen was not passed.

In order to avoid possible confusion arising from differences among regional editions, interviewers purchased copies of these five magazines in their local area. Thus, the copies inspected by respondents were representative of the editions circulated locally.

DESIGN

A total of 60 magazines was studied in five of the six questioning methods. In Method VI, all 60 were included in the screening question and, for nineteen of these, the reading questions were asked.

Magazines were listed in alphabetical order in all methods with the exception of the Roster recall method, where magazines were listed alphabetically within issuance frequency. Starting points were varied and there was alternation of forward and reverse sequences.

Controls were established during the sampling stage so that all six methods were applied in statistically equivalent samples.

Each interviewer worked on assignments using two of the six test methods and both evaluative techniques. The allocation was established so that every interviewer conducted interviews with one of three methods in which cover recognition plays a part (Methods I, II and III) and one of the other methods. Assignments were equalised insofar as possible so that each of Methods I, II and III was paired in interviewer assignments with each of Methods IV, V and VI an approximately equal number of times.

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FIELD AND ESTIMATING PROCEDURES

Field procedures

Fieldwork was done over a four-week period, from 11 May to 7 June 1970. One issue each of the test magazines was covered in each interview with the Cover Recognition methods (I, II and III) and the Skeletonised method (IV) and Full issue display method (VI). The Roster Recall method (V) did not utilise specific issues. One issue for each monthly, bi-monthly and quarterly was used throughout the field period. For weekly and bi-weekly publications, issues were changed midway through the field period.

The average issue age in weeks for the tested publications was 9.2 for monthlies, 9.6 for bi-monthlies, 15.4 for quarterlies, 4.8 for weeklies and 2.1 for newspaper supplements.

A sampling of each interviewer's work was verified by long distance telephone from the home office. On the basis of the verification, one interviewer's work was found

to be suspect, and all of her returns were excluded from the survey findings.

Estimating procedures

The total number of interviews for each questioning method was assigned equal weight in the final tabulating stage.

Ratio estimates were made to assure equivalence between the methods of the representation by the sexes and representation of metropolitan and non-metropolitan areas within geographic regions. These procedures were applied to reduce chance variations in making comparisons among questioning methods.

ANALYSIS OF FINDINGS

The following tables present the salient findings.

As **Table 1** demonstrates, in terms of the three item recognition technique, the greatest congruence between

TABLE 1
Results of three item evaluator (percent claiming recognition of one or more of three items)

Questioning method	Among those classified as non-readers of an (average/single) issue by the questioning method			
	Among those classified as readers of an (average/single) issue by the questioning method %	Total %	Passed six-month screen but did not look into issue %	Did not pass six-month screen %
I Cover recognition	38	12	*	*
II Cover recognition – six-month screen and reminder question about reading frequency	59	22	31	19
III Cover recognition – six-month screen and table of contents	58	22	27	20
IV Skeletonised issue – six-month screen and editorial interest questioning	57	20	27	19
V Roster recall	50	23	*	*
VI Full issue recognition – six-month screen	62	23	33	20

* Six-month screen not applicable.

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TABLE 2 Three item evaluator: claimed readers

Among those classified as readers of an (average/single) issue by the questioning method

Questioning method	Claim recognition of exactly				Claim recognition of at least one item
	Total %	One item %	Two items %	Three items %	%
I Cover recognition	100	23	10	5	38
II Cover recognition – six-month screen and reminder question about reading frequency	100	32	20	7	59
III Cover recognition – six-month screen and table of contents	100	28	23	7	58
IV Skeletonised issue – six-month screen and editorial interest questioning	100	28	22	7	57
V Roster recall	100	25	19	6	50
VI Full issue recognition – six-month screen	100	29	23	10	62

TABLE 3 Three item evaluator: claimed non-readers

Among those classified as non-readers of an (average/single) issue by the questioning method

Questioning method	Claim recognition of exactly				Claim recognition of at least one item
	Total %	One item %	Two items %	Three items %	%
I Cover recognition	100	10	2	—	12
II Cover recognition six-month screen and reminder question about reading frequency	100	18	4	—	22
III Cover recognition – six-month screen and table of contents	100	15	6	1	22
IV Skeletonised issue – six-month screen and editorial interest questioning	100	15	4	1	20
V Roster recall	100	17	5	1	23
VI Full issue recognition – six-month screen	100	17	5	1	23

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readers and item recognisers was for the Full issue recognition technique (62%). Almost as high was the Cover recognition – six-month screen and frequency of reading method (59%), the Cover recognition – six-month screen and table of contents method (58%) and the Skeletonised issue – six-month screen and editorial interest method (57%).

Among those who claimed to be non-readers, item identification ranged between 20% and 23% for five out of six methods. For the sixth method, Cover only recognition, only 12% of non-readers claimed to recognise one or more editorials. The lower the item recognition score among claimed non-readers, the better the test method. With the exception of the Cover only method, all techniques tested score about equally. Though Cover only shows the greatest congruence among non-readers, it does very poorly among readers.

It should be observed that claimed item recognition is much higher among respondents that passed the

six-month screen than among those who did not.

Tables 2 and 3 show frequency distributions by number of items recognised for claimed readers and claimed non-readers, respectively. For all test methods, the majority of claimed non-readers mentioned recognition of only one item. In contrast, about half of the claimed readers mentioned have seen two or three items before.

Only four of the six methods were tested by Full issue inspection approach. (Editorial interest and Full issue recognition do not lend themselves to this check.) **Tables 4, 5 and 6** again show Cover recognition – six-month screen and frequency of reading method (80%) and the Cover recognition – six-month screen and table of contents (82%) with the greatest congruence with the criterion measurement, Full inspection.

Once again, those who pass the screen and later claim *not* to be readers have a greater likelihood of claiming readership after full inspection (see **Table 6**).

TABLE 4
Results of full issue evaluator (percent claiming having looked into the issue with full issue inspection)

Questioning method	Among those classified as non-readers of an (average/single) issue by the questioning method			
	Among those classified as readers of an (average/single) issue by the questioning method	Total	Passed six-month screen but did not look into issue	Did not pass six-month screen
	%	%	%	%
	100	100	100	100
I Cover recognition	70	7	*	*
II Cover recognition – six-month screen and reminder question about reading frequency	80	11	16	9
III Cover recognition – six-month screen and table of contents	82	14	23	10
IV Skeletonised issue – six-month screen	**	**	**	6
V Roster recall	65	18	*	*
VI Full issue recognition – six-month screen	**	**	**	7

* Six-month screen not applicable.

** Full issue evaluator not applicable.

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TABLE 5
Full issue evaluator: classified readers – total

Questioning method	Among those classified as readers of an (average/single) issue by the questioning method %	Statement after inspection of full issue		
		Had read before %	Had not read before %	Not sure %
I Cover recognition	100	70	26	4
II Cover recognition – six-month screen and reminder question about reading frequency	100	80	18	2
III Cover recognition – six-month screen and table of contents	100	82	16	2
IV Skeletonised issue – six-month screen	100		Not evaluated	
V Roster recall	100	65	33	2
VI Full issue recognition – six-month screen	100		Not evaluated	

TABLE 6
Full issue evaluator: classified non-readers – total

Questioning method	Among those classified as non-readers of an (average/single) issue by the questioning method %	Statement after inspection of full issue		
		Had read before %	Had not read before %	Not sure %
I Cover recognition	100	7	91	2
II Cover recognition – six-month screen and reminder question about reading frequency	100	11	86	3
III Cover recognition – six-month screen and table of contents	100	14	83	3
IV Skeletonised issue – six-month screen and editorial interest questioning*	100*	6	90	4
V Roster recall	100	18	80	2
VI Full issue recognition – six-month screen*	190*	7	92	1

*Includes non-screen passers only.