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Herman F. Brandt  
*Drake University*

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## **The One-Way-Mirror Technique as a Scientific Approach to the Study of Magazine Readership**

BY HERMAN F. BRANDT

Coextensive with the problem of production in modern civilization is that of consumption. To ascertain what, where, when, and why certain commodities are purchased or utilized presupposes that a certain amount and kind of research has preceded. This applies to all commodities produced, manufactured and sold.

Market research today is essential to the manufacturer of the product and it is employed in America's foremost and progressive industries. Hundreds of thousands of dollars are spent annually for the purpose of ascertaining what the consumer wants and what his buying interests and habits are.

An excellent example of studying the consumption and distribution of goods is that carried on by the A. C. Nielsen company. The market research of the organization known as "The Nielsen Food and Drug Index" furnishes continuous factual marketing information on more than 500 products sold through retail stores. Every sixty days personally conducted audits of invoices are made of some 4,000 typical stores in as many communities. By this technique, trends in consumer purchases are analyzed and the effectiveness of advertising copy, packaging, or merchandising methods is evaluated.

Radio surveys are likewise made to ascertain the number of homes listening as well as to determine the type and kind of programs most frequently selected. This information is obtained by making a personal interview, placing a telephone call, or by means of a device attached to the radio, known as a audimeter.

What is true of consumer goods, and radio, applies to published papers, books, or periodicals as well. Numerous methods have been devised to obtain from the customer or reader such information as will reveal his interest and habits of readership. While the circulation of a given magazine is an important measure of what people read, it still fails to reveal what type of subject matter is most or least acceptable to the reader or what type of reading habits are employed.

To enumerate only a few of the methods employed to ascertain readership interest is to call attention to:

A method known as the Clark Syndicate Newspaper Service. This type of investigation provides an interviewer with different kinds of magazines. The surveyer calls at homes and asks the housewife whether she has read one or more of the magazines he carries. If she replies in the affirmative, he provides her with a colored pencil and requests that she mark with different symbols such editorials or advertising copy as she recognizes (1) as having seen, (2) read in part, or (3) read carefully when she read the magazine.

While this technique provides valuable data concerning the relative attention given respective portions of a newspaper or periodical, it may be criticized for being too subjective to be scientifically reliable. Limitations of this type of survey may be based upon:

1. The inability of the reader to remember whether or not he has seen, read in part, or in its entirety, certain portions of the periodical.
2. The emotional blocking of the reader due to the presence of the interviewer.
3. The unconscious tendency on the part of the reader to pose as intelligent and scrutinizing.

Other methods, such as the recall or recognition technique and the Gallup method of advertising research or field studies of outdoor advertising and window display, have been employed to test the effectiveness of advertisements, while some of them have similarly been employed in testing editorial copy.

Without referring to other research studies employing similar techniques, (and attempting an appraisal of the merits or demerits of the methods employed) the report of the paper will deal with *One-Way-Mirror Technique* as a means of obtaining scientifically, data related to the interests and habits of readers. In order to observe men and women reading magazines, a booth was constructed in the Ladies' Lounge of a department store and in a public library. The booths are equipped with one-way mirrors. This arrangement permits the observer to record every reaction of readers as they read the magazines.

Magazines are received in the Visual Research Laboratory ten days prior to their appearance on the newsstands and are placed on tables and chairs to be read. Inside the booths the observer operates an electric recording device\* which records in 1/100th of a minute the exact time spent by each reader on respective spreads of the magazine.

This report deals with the readership records of Magazine A and Magazine B. This study covers one hundred and four (104) separate reports on as many different issues of magazine A and magazine B over a period of two years.

Since the subjects have not seen or read any portions of the magazine previously and since they are not aware of being observed, the reaction of the reader is normal and unaffected. Over a period of two years a total of 7800 readership patterns have been recorded reading the two magazines, and while far more data have been amassed than space will permit to report here, the major findings will be briefly stated.

## RESULTS

The results as reported in the study are based upon the records of

\*The electric counter was developed by the author of this study. All time is recorded in units of a minute of 1/100th thereof.

7800 subjects reading 104 issues, (52 magazine A and 52 magazine B) with a total of 5525 different spreads over a period of two years.

TABLE I

Average Time Spent by Subjects  
Reading the Entire Magazine.

Magazine A		Magazine B	
Subjects	Time	Subjects	Time
Male .....	15.53	Male .....	20.70
Female .....	13.08	Female .....	16.13
Both .....	14.31	Both .....	18.42

For purpose of comparison the readership reports of Magazine A will be tabulated on the left and of Magazine B on the right of the respective tables.

TABLE II

Average time Spent by Respective  
Age Groups in Reading the Magazines  
(Age estimated by the observer)

MAGAZINE A\*

Age Group	Male		Female		Both	
	% of	Av. Time	% of	Av. Time	% of	Av. Time
10-21 .....	26	10.77	33	9.70	29.50	10.21
21-30 .....	15	14.23	19	13.87	17.00	14.03
31-40 .....	15	16.75	19	14.55	17.00	15.54
41-50 .....	16	15.10	16	14.74	16.00	14.93
51-60 .....	13	20.62	9	13.82	11.00	17.78
61-70 .....	13	19.98	3	15.01	8.00	18.77
71 & over.....	2	26.87	1	13.49	1.50	25.20
Average .....	100	15.53	100	13.08	100.00	14.31

MAGAZINE B\*

Age Group	Male		Female		Both	
	% of	Av. Time	% of	Av. Time	% of	Av. Time
10-21 .....	24	13.10	27	12.17	26	12.64
21-30 .....	13	23.44	18	19.56	15	21.50
31-40 .....	16	21.54	17	19.57	16	20.56
41-50 .....	15	21.89	17	21.28	16	21.59
51-60 .....	12	24.29	10	20.91	11	22.60
61-70 .....	10	31.23	11	28.86	15	30.05
71 & over.....	1	27.35	0	27.35	1	27.35
	100	21.70	100	16.16		18.42

While it would seem obvious that readership time would vary considerably, a tabulation of data reveals that regardless of content, more time is spent by certain age groups when reading the entire magazine.

TABLE III  
Average Time Spent by Subjects  
Reading Each Spread

Magazine A		Magazine B	
Subjects	Time	Subjects	Time
Male .....	.41	Male .....	.34
Female .....	.34	Female .....	.26
Both .....	.37	Both .....	.30

Subjects devote more time reading Magazine B than in reading Magazine A, but since the total number of pages in the former exceeds that of the latter, readers devote more time per spread reading Magazine A.

TABLE IV  
Percentage of Time Devoted to  
Different Portions of the Magazines

Magazine A				Magazine B			
Portion	Male	Female	Both	Portion	Male	Female	Both
1st quarter	24.66	28.33	26.49	1st quarter	28.55	27.31	27.93
2nd quarter	28.99	26.75	27.87	2nd quarter	26.16	26.44	26.30
3rd quarter	22.32	23.09	22.70	3rd quarter	21.09	22.37	21.73
4th quarter	22.33	21.29	21.81	4th quarter	24.20	23.88	24.04
	100.00	100.00	100.00		100.00	100.00	100.00
1st half .....	55.35	55.62	55.49	1st half .....	54.71	53.75	54.30
2nd half .....	44.65	44.38	44.51	2nd half .....	45.29	46.25	45.70
	100.00	100.00	100.00		100.00	100.00	100.00

In both magazines more time is devoted in reading the first half of the magazine than in the second. This is probably due to the fact that a larger per cent (79% of the subjects) read the magazines from front to back.

\*For confidential reasons the names of the magazines can not be revealed.

TABLE V

Relative Time Spent by  
Male and Female Subjects Reading  
Various Types of Subject Matter.

MAGAZINE A

Type of Subject Matter	Ind. Average Time Per Spread		
	Male	Female	Both
Personalities .....	.49	.22	.45
War .....	.49	.33	.41
Home-Towns .....	.49	.34	.42
Aircraft .....	.48	.25	.37
Entertainment .....	.36	.35	.36
Food .....	.24	.30	.27
Industry .....	.28	.22	.25
Advertisements .....	.16	.13	.15
Average .....	.37	.27	.32

Recognizing that it is important for publishers and advertisers to know how much time is spent by the average male and female reader in covering the entire magazines, it is equally important to learn what features interest them and to what extent. Selecting only a limited number of features which differentiate themselves sufficiently to warrant classification, a distribution of time devoted to each is significant.

TABLE VI

Percentage of Subjects  
Reading the Magazine from Front to Back,  
Back to Front, or a Combination of the Two

Magazine A				Magazine B			
Sequence	Percentage of Subjects			Sequence	Percentage of Subjects		
	Male	Female	Both		Male	Female	Both
Front to back	80.00	77.50	78.75	Front to back	83.00	74.00	78.50
Back to front	7.00	9.00	8.00	Back to front	5.00	12.00	8.50
Both .....	13.00	13.50	13.25	Both .....	12.00	14.00	13.00

Seventy-nine percent of the subjects read the magazine from front to back, eight percent from back to front, and thirteen percent read both ways. The sequence of magazine readership is very much the same for the two periodicals.

TABLE VII

Percentage of Subjects  
Holding Magazines in Various Positions

Magazine A				Magazine B			
How Held	Percentage			How Held	Percentage		
	Male	Female	Both		Male	Female	Both
Up .....	24.00	22.50	23.25	Up .....	20.00	15.00	17.50
On Lap .....	21.00	31.00	26.25	On Lap .....	24.00	29.00	26.00
Both .....	27.00	19.50	32.00	Both .....	23.00	22.00	27.00
On Table .....	28.00	26.50	27.25	On Table .....	24.00	34.00	29.00

While the distribution of the various ways a magazine is held is almost equal, more women read with the magazine on their laps than do male readers.

One other phase of readership habits is that of the degree to which readers are distracted or interrupted while reading the magazine. Over a period of two years in which observers have recorded the reactions of subjects to their surroundings, the following tabulation is representative. From all indications women are distracted more than men.

TABLE VIII

Degree of Distraction While  
Reading the Magazine

Magazine A				Magazine B			
Degree of Distraction	Percentage			Degree of Distraction	Percentage		
	Male	Female	Both		Male	Female	Both
Much .....	1.00	1.50	1.25	Much .....	1.00	2.00	1.50
Little .....	11.00	22.00	16.50	Little .....	12.00	25.00	18.50
None .....	88.00	76.50	82.25	None .....	87.00	73.00	80.00

One other item was to note the relative time readers spend in looking at the cover of the magazine. While the average time is only about .15 of a minute the average time devoted to respective covers varies greatly for both male and female readers.

TABLE IX

Average Time Spent by Subjects  
Reading Cover of Magazine

Magazine A			Magazine B		
Subject	Percent Time		Subject	Percent Time	
Male .....	.13		Male .....	.12	
Female .....	.12		Female .....	.10	
Both .....	.13		Both .....	.11	

Different covers as might be expected had greater attention value.

## SUMMARY AND CONCLUSIONS

By means of the one-way-mirror technique, reading habits of subjects are recorded without their knowledge of being observed. Based on this study the following information has been revealed:

Male and female readers spend an average of 14.31 and 18.42 minutes in reading Magazine A and Magazine B respectively.

An average of .37 and .30 minutes is devoted to reading a single spread in the two periodicals.

More time is devoted in reading the magazines by the oldest age group while the least amount of time is spent by those in the 10 to 20 year age bracket.

The percentage of subjects reading the magazine from front to back is 78.75 and 78.50; and back to front 8.00 and 8.50; and a combination of the two 13.25 and 13.00 for Magazine A and Magazine B respectively. Slightly more female subjects read magazine from back to front.

The percentage of time devoted to the four (4) quarters of the magazine is fairly evenly distributed except that approximately 54% of the total time is devoted to the first half and about 45% to the second half of the periodicals.

Only about 1.5% of the readers are much distracted, about 17% show little distraction and roughly 80% find the magazines sufficiently interesting not to be distracted at all.

Both Magazine A and Magazine B readers spend in the order of preference most time on subject matter dealing with famous personalities. People are vitally interested in people and hence the inclusion of stories of great men and women in the contents of a periodical as a rule ranks among the highest readership interests.

The order of preference for Magazine A and Magazine B readers for different types of subject matter follows very much the same pattern where comparison can be made.

The average spread readership for Magazine A is .37 but for these special features it is .47 minutes. For Magazine B it is .30 for average spread and .41 minutes when reading these special features.

It is apparent from this study that one thing the American public has in common is "little time". The average man or woman has at his disposal about fifteen (15) minutes in which he reads, at one sitting, a magazine, and it is likely, as readership studies have revealed, that regardless of how large the periodical may be, the time devoted to reading the entire magazine is practically the same. Based upon these findings, it would appear that a publication would receive greater readership if published one-half the size every two weeks than if distributed twice the size every month.

What is a Natural Reading Situation: A natural reading situation is one in which the reader is more or less distracted. It makes little difference whether it is the lady in the home reading her favorite magazine and being reminded that something on her stove is boiling over, the milkman at the back door calling for bottles or the paper boy at the front door. The male reader, too, has many distractions

when it is remembered that much of his reading is done on his way to and from work, while riding a streetcar or bus. The telephone rings and a caller makes inquiry about certain problems dealing with the counsel of his employer.



Fig. 1 An observer, looking through the one-way-mirror, cannot be seen by the reader but is in a position to see and record how the subject reads the entire magazine.

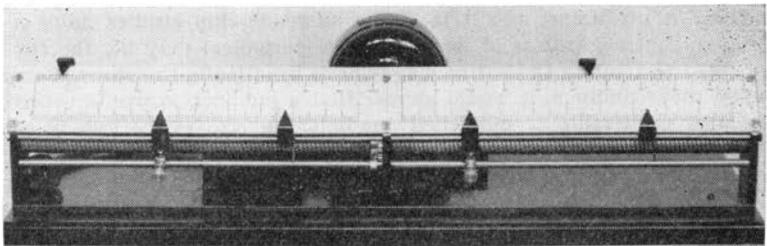


Fig. 2 Electric counter employed to record the time spent in reading a magazine or part thereof.

The one-way-mirror technique has obviously many advantages over other subjective types of readership analysis. It provides a measure of high and low readership for all types of copy as illustrated in Figure 4. It combines laboratory and field studies, while observing the reader in his natural habitat and without his knowledge of being observed. Data obtained by this method have the advantage of both the scientific laboratory analysis and the practical application based upon the findings.

If it is discovered that more time is devoted in reading certain portions of the magazine; that greater interest is shown in one type



Fig. 3 Subjects reading the magazine without a knowledge of being observed.



Fig. 4 A bidimensional mono-film camera, developed by the author.

of editorials over another; and that male and female subjects differ in the readership habits and interests and that one type of cover has greater attention gaining and sustaining features, the publisher may well apply the information thus obtained in determining the content and mechanics of subsequent issues of his publication.

If in addition to the evaluation of readership interests, the editor or advertiser desires to measure the relative time subjects spend on respective pages or portions thereof, the eye-camera needs to be employed.

The eye camera illustrated in Fig. 4 photographs every eye movement and fixation. The location, duration, and sequence of every fixation as well as the direction and distance of every excursion is recorded on a motion picture film. The attention value of such variables as size, position, isolation, color, etc., may be measured with this instrument. The attentivity of any and all phases of editorial and advertising copy may be scientifically evaluated by this technique and may be used as a final check on magazine readership. The eye camera serves the purpose of determining just which variables gain and sustain the attention of the reader and the course the eyes travel in covering the observed field.

DEPARTMENT OF PSYCHOLOGY,  
 DRAKE UNIVERSITY.

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