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2.1 Validating the recency and through-the-book techniques

This paper is concerned with experiments in measuring magazine audiences, with reference to the pressure for validating and adjusting the 'recency' and 'through-the-book' techniques, and their methodological problems. In summary it may be said that minor variations of investigation design, especially of pre-coded response categories by the recency technique, can substantially affect the measurement of readership numbers. Under these circumstances it is a central concern to find a yardstick to measure which readership figures come closest to reality.

In the context of the subjects for Sessions 2 and 3 of this symposium, we here report various research experiments which attempt to explain the wide differences between the results of the two major German Readership Surveys which have appeared consistently over the years.

These two surveys are the Media Analysis (AG.MA Arbeitsgemeinschaft Media-Analyse), sponsored by an association of publishing houses, advertising agencies and advertisers, and the Allensbach Advertising Media Analysis (Allensbacher Werbeträger-Analyse – AWA) conducted by the Institut für Demoskopie Allensbach. The outline in the appendix shows a systematic comparison between the two German media surveys.

Our paper is based on a revised version of our contribution *Experiments in the Measurement of Readership* (Tennstädt & Noelle-Neumann, published in the *Journal of the Market Research Society* **21** 4 1979, pages 251–267) which has been expanded through new experiments and findings.

In particular, we examine the following methodological problems. Recency: the most important influence; the proportion of qualifying and non-qualifying categories, the more marginal effects of visual aids; sampling methods; fieldwork organisation; replicated and parallel readership; and rotation. Through-the-book: handling; results compared with recency; and the problem of false claiming.

RECENCY

Results are influenced most by the proportion of qualifying and non-qualifying categories

The controversy about a true picture of magazine coverage has flared up anew internationally. On the basis of a myriad of investigations, most of which it conducted itself, the Institut für Demoskopie Allensbach was able to establish proof about the extent to which different methodological approaches have an impact on the coverage figures for magazines, and, hence, are liable to manipulation.

According to these investigations, it is the difference in questioning techniques that has the greatest influence. These techniques depend, to a great degree, on the proportion of pre-choice response categories in the questionnaire which are used to qualify respondents as either readers per issue (rpi) or non-readers.

Using the example of monthly magazines, **Figure 1** provides an overview of what we consider proportion or probability for qualifying categories and how our investigative model was set up.

The impact of the relationship between response alternatives leading to readers per issue and response alternatives not leading to readers per issue is enormous. The larger the probability for the qualifying categories the higher the readers per issue figures found (**Table 1**).

We find this relation for all groups investigated, for weekly, bi-weekly and monthly magazines.

The available investigation figures can be depicted in the form of a linear function with satisfactory accuracy (**Figure 2**).

This gives us the opportunity to make a better comparison between investigations of different probabilities for qualifying categories. At least by means of approximation we can eliminate the influence on the results which is exerted by the different proportion of qualifying and non-qualifying categories in the two investigations.

International media research does not appear to have fully grasped the import of this problem. At least the frivolousness and multitude of procedures applied in the individual countries suggest this impression. For example, the proportion of rpi and non-rpi categories is:

1:7 in the AG.MA in West Germany.
1:7 in Italy.
1:5 in Austria (IMAS, Linz).
1:2 in Belgium.
1:2 in France.
1:2 in Great Britain.
1:2 in the Netherlands.
1:2 in Switzerland.
2:4 in Austria (Dr Fessel Institute).
1:1 in Denmark.

This list is largely based ón Klaus Peter Landgrebe's

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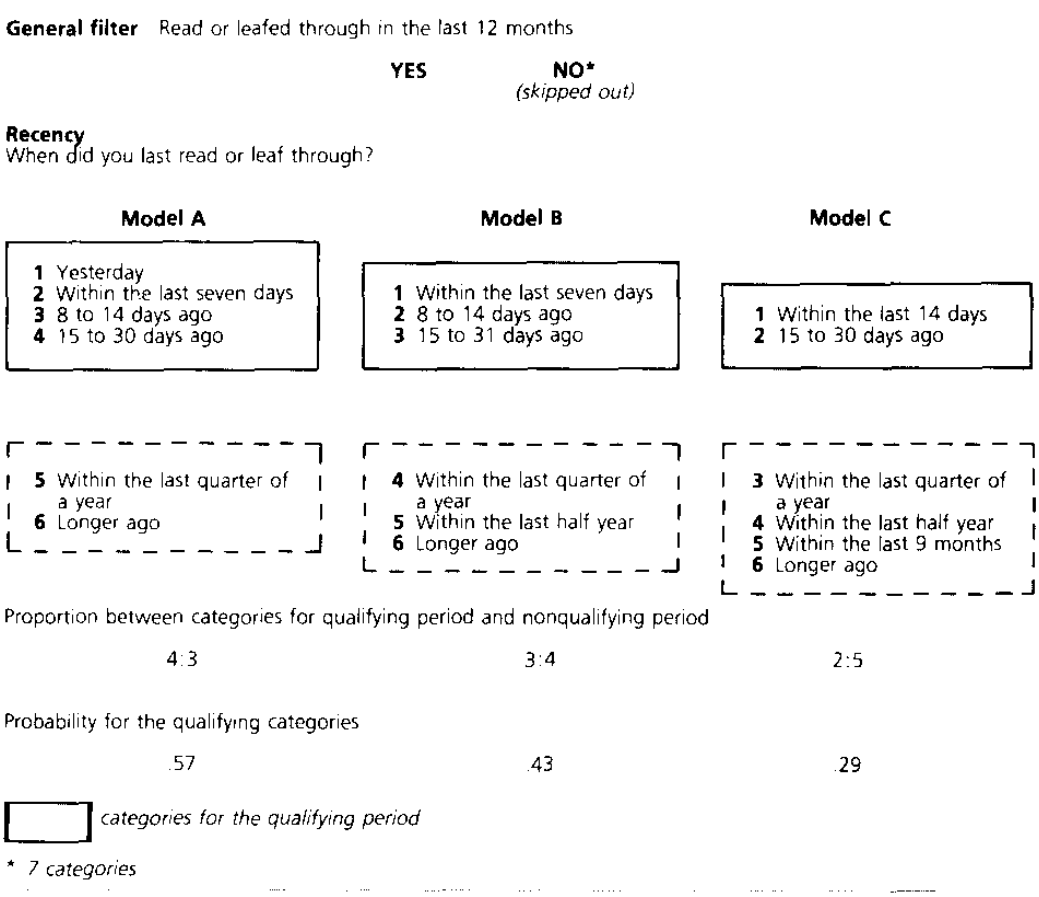
FIGURE 1
Experimental questioning models for monthly magazines



compilation in *Media-Forschung in Europe*, a synopsis of twelve investigative methods in nine countries and in six languages, Patronats-Edition 1 of the AG.MA, Frankfurt/Main, 1973.

What does y = 61.5 + 2.86x mean in concrete terms?

If we have 10% readers per issue, measured by the proportion 1:6, with the most frequently used model we can expect the following results: in the Federal Republic of Germany AG.MA 1:7 – 9.7% rpi; likewise in Italy 1:7 – 9.7% rpi; Austria (IMAS) 1:5 12.5% rpi; Federal Republic of Germany IFD Allensbach 2:5 – 14.3% rpi; Belgium, France, the Netherlands; Switzerland, UK 1:2 – 15.7% rpi; Denmark 1:1 – 20.5% rpi.

In the West German AG.MA and likewise in Italy with a 1:7 proportion, extremely low coverage figures are necessarily the result of this model. In Denmark, however, relatively large coverage numbers result.

Hidden categories

In this comparison, our colleagues from the US and the UK take a special position because they ask an open question about last reading, ie, they don't offer any sorted pre-choice categories. They instruct the interviewer in the questionnaire to put all replies that do not fall into the publication interval into the remaining category 'longer ago'.

A pilot study experiment conducted at the University of Mainz by our staff member Dr Erp Ring suggests that with this model, too, the results are dependent upon the number of response categories provided in the questionnaire for rating the respondent's open-ended reply (**Table 2**).

FIGURE 2
y = 61.55 + 2.86 x or the Dilemma of frequency

The impact of the proportion between response alternatives leading to readers per issue and response alternatives *not* leading to readers per issue (rpi) on readership figures.

Source: Allensbach Archives No 2086 10/72

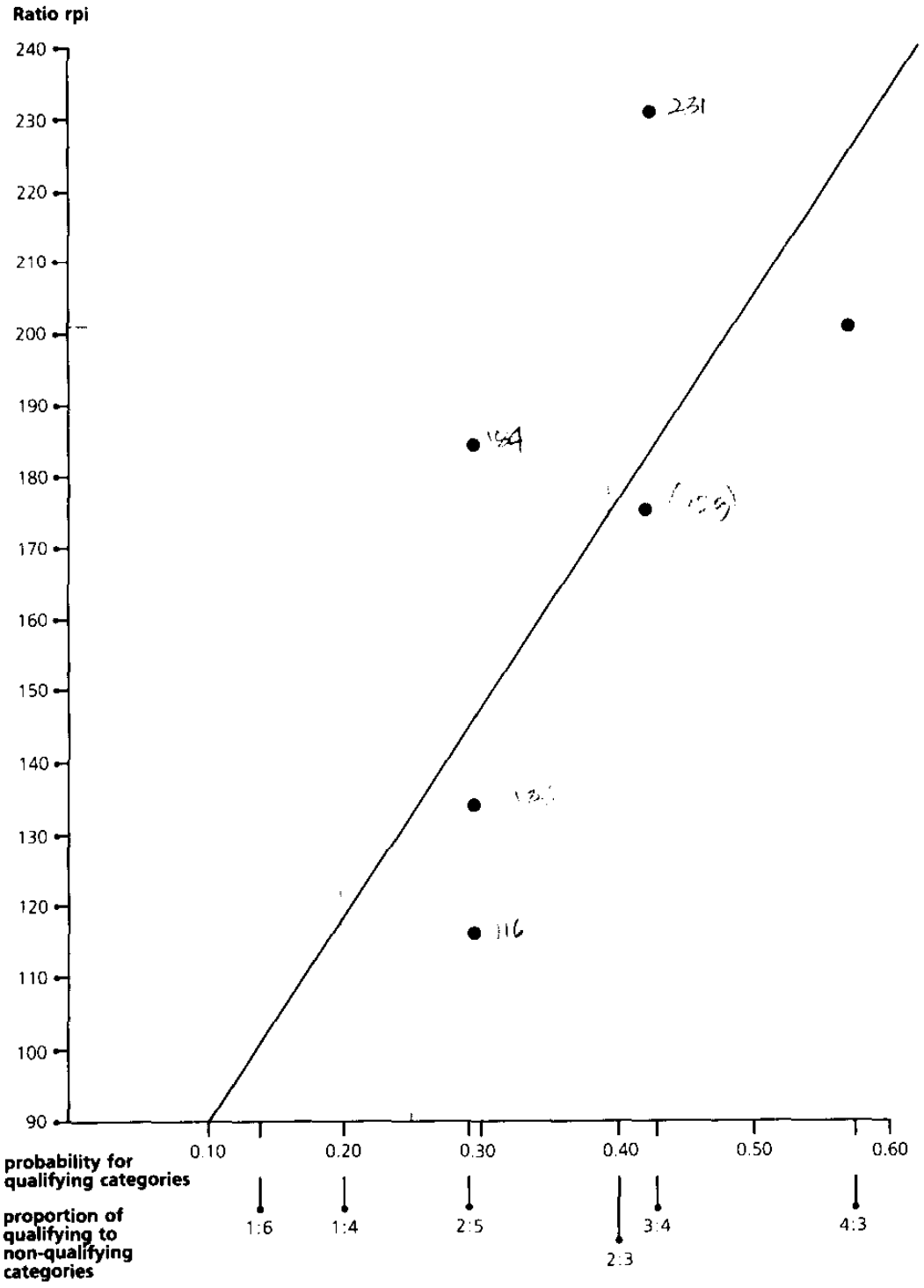


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TABLE 1
Effects of different pre-choice question models

Readers per issue Average coverage for:	*Proportion of rpi categories : non-rpi categories*			
	1:6 (n ~ 500) %	2:5 (n ~ 500) %	3:4 (n ~ 500) %	4:3 (n ~ 500) %
Weeklies				
Illustrated newsmagazines	16.9	22.6	—	—
Radio and TV guides	11.9	13.8	—	—
Bi-weeklies	4.5	8.3	10.4	—
Monthlies	—	10.1	13.2	15.1
Probability for the qualifying categories (p)	.14	.29	.43	.57

Source: Allensbach Archives No 2086, 10/72

TABLE 2
Hidden categories (Pre-coded into the questionnaire only to measure the interviewer impact on the results by the proportion of qualifying and non-qualifying categories

Open questions

When did you last read or leaf through *Stern* (Weekly magazine)?

	Model A Pre-coded into the questionnaire – within the last seven days – longer ago	**Model B** Pre-coded into the questionnaire – within the last seven days – 8 to 14 days ago 15 to 30 days ago – within the last quarter of a year – longer ago
Qualifying categories	1 (p .50)	1 (p .20)
Non-qualifying categories	1	4
Results		
Readers per issue	52.3%	36.1%
	Significant at a level of 5%	

Split ballot experiment
IfD Allensbach (Dr Ring) in connection with the University of Mainz, 1980.

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Masthead cards – no difference in effect if black & white or multi-coloured

We have found that it has practically no effect on the results whether black and white masthead cards or multi-coloured masthead cards are presented to the respondents.

This had already been established by a split-sample experiment we conducted in the 1950s. Strictly experimental in design, half of the interviews were conducted using black and white masthead cards and half were conducted using multi-colour masthead cards. The same procedure was repeated in 1972 and confirmed the earlier findings. The results are shown in **Table 3**.

Sampling method – difference between quota and random only about 10%

Comparative quota versus random experiments have shown that the impact of different sampling procedures is generally overrated. In this context, too, we are relying on experimental tests that have repeatedly been conducted since 1961. In fact, the most recent of these comparative experiments was carried out in the summer of 1979.

Further controlled experiments also played a role in the decision to carry out our media survey on the basis of a quota sample. Several election forecasts had been made, some on the basis of random samples, others on the basis of quota samples. A comparison of results with the final official election returns proved to be in favour of the quota sample.

In **Table 4** we show the results of a random versus quota sampling experiment for readership from 1963.

Fieldwork organisation – the influence of an institute's unique approach is great

Evidently the organisation of interviewer activities has a greater impact on the results. The Media Analysis (MA) commissioned four different institutes to conduct the fieldwork. In the 1976 AG.MA, for instance, the gross sum of exposures for 18 magazines established by the institute that achieved the highest coverage figures, surpassed that of the institute achieving the lowest figures by 22%. For all 18 magazines, the coverage figures provided by the four institutes conducting the fieldwork showed differences significant at a 5% level. The

TABLE 3
The effect of black and white and multi-coloured masthead cards

	Black and white masthead cards (n = 491)	*Multi-coloured masthead cards (n = 525)*	*Deviation of coloured masthead cards from black and white cards*
Weekly magazines (selected titles)	%	%	%
Bunte Illustrierte	21.8	17.3	−4.5
Neue Revue	17.3	18.6	+1.3
Quick	18.2	20.2	+2.0
Stern	33.0	29.3	−3.7
Bild + Funk	6.9	7.0	+0.1
Fernsehwoche	6.2	6.5	+0.3
Funkuhr	7.4	9.5	+2.1
Gong	11.8	8.7	−3.1
Hör Zu	37.0	33.7	−3.3
TV Hören + Sehen	13.7	16.4	+2.7
Frau Im Spiegel	10.6	10.1	−0.5
Das Neue Blatt	9.3	8.8	−0.5
Neue Post	9.5	9.9	+0.4
Der Spiegel	17.9	19.7	+1.8
Die Zeit	6.1	8.0	+1.9
	226.7	223.7	1.88*
Index	101	100	

* *Average absolute deviation*

Source: Allensbach Archives No 2086, 10/72

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TABLE 4
The effect of quota versus random sampling upon readership results

	Survey A Quota sample (n = 7836)	*Survey B Random sample (n = 1798)*	*Deviation of random sample from quota sample*
Weekly magazines selected titles	%	%	%
Revue	20.7	16.0	−4.7
Neue Illustrierte	16.5	13.5	−3.0
Quick	24.8	21.0	−3.8
Stern	31.5	29.4	−2.1
Bild + Funk	4.0	4.0	0.0
Funkuhr	2.7	2.0	−0.7
Gong Funk-Fernsehwelt	3.9	3.4	−0.5
Hör Zu	30.4	30.8	+0.4
TV Hören + Sehen	8.7	8.7	0.0
Frau Im Spiegel	3.4	3.4	0.0
Das Neue Blatt	5.9	4.7	−1.2
Neue Post	2.5	1.3	−0.7
Der Spiegel	12.4	11.4	−1.0
	167.4	150.1	1.39
Index	111	100	

institutes were working at the same time and using standardised question models (**Table 5**).

These results can be seen as being very stable. In the 1980 MA about the same sized differences appear in the measurements of the different participating institutes.

TABLE 5
Effect of fieldwork organisation on readership levels

Sum of readerships for 18 magazines (weekly)

	Institute A %	*Institute B* %	*Institute C* %	*Institute D* %
	165	183	184	202
Index				
Minimum	100			
Maximum				122

Average absolute deviation per title: 2.39

Source: MA 1976, Methodenband, Teil 1 (Methodology volume, part 1). Unweighted figures.

REPLICATED AND PARALLEL READERSHIP

In connection with the generally practised technique used for the recency question, this problem is without doubt of interest. It was also dealt with and discussed intensely in the early 1960s (the Roy Thomson Medals and Awards for Media Research, November 1962).

However, the significance of the problem is overrated. The differences that come up when considering the problem of replicated and parallel readership as opposed to common coverage data are much lower than influences which, for instance, we now know about from the different selection of the proportion from qualifying and non-qualifying categories.

As a result of our investigation the following statements can be made (IfD Archives: AWA '63):

(**a**) there is no danger of an estimation error to the extent the organisers of the British Thomson competition deemed possible – ie, a triple overrating of readership numbers for some magazines.

(**b**) with the current investigation method, readers per issue can be overrated or underrated up to one-tenth, and in extreme cases up to a maximum of 20%, looking at it relatively.

According to our present knowledge we should approach these investigations with certain reservations:

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TABLE 6
The influence of rotation of magazine categories on coverage figures

According to the raw figures of 'LA 63'

Coverage averages (lowest figures = 100)	*Greatest deviation*
Weeklies (questioned at the beginning: 9.1% = 100%)	104% when asked in the middle
Bi-weeklies (questioned at the end: 5.7% = 100%)	125% when asked in the first section
Monthlies (questioned at the end: 3.7% = 100%)	141% when asked in the first section

AWA '63, 'Die Zeitschriftenleser', p 179.

the question about *first reading* in the publication interval was included in them, a question form which may demand more than is possible, and at least partly overburdens the respondents.

ROTATION

An expert's judgement of the Allensbach Institute emphatically pointed to the rotation problem for magazine readership analyses on the occasion of the investigation of the Arbeitsgemeinschaft Leseranalyse even in 1958, during which no rotation took place.*)

As early as 1963, however, on the basis of many years' studies, we arrived at the conclusion that a mechanical rotation of magazines with different publication intervals is neither necessary nor expedient. (IfD Archives: AAMA '63, 'Die Zeitschriftenleser 1958', p 178 ff.) The necessity of rotating weeklies does not exist as they are not impaired by their position at the beginning, in the middle or at the end of the interview. This is supported by the investigation of the Arbeitsgemeinschaft Leseranalyse – LA 63. Weekly magazines scored an average readers per issue value of 9.1% when the question was posed in the beginning, the average coverage value was 9.5% when they were posed in the second position, and when asked at the end of the interview they rated 9.2%.

The situation is different for bi-weekly and monthly magazines. If they are dealt with at the beginning of the interview – or, if the interview deals exclusively with them, which is tantamount to the same thing – they achieve substantially more favourable results than if dealt with in the second or third position. This state of affairs was tested in several Allensbach readership analyses.

We believe that it is wrong to give general preference to those models ascribing every media vehicle or every magazine group the same chance for its placement by means of random rotation.

This procedure has been proven to be false if individual positions lead to an above average or especially poor approximation to reality. It appears only justified if, for instance, all publication interval groups are advantaged or disadvantaged in the same way in all questioning positions.

Using the example of the 1963 LA it can be established that the coverage figures for the group of bi-weekly magazines are reduced by about 13% of the readers if random rotation is applied.

An intermediate

For a complete comparison of the different factors investigated, the synoptic table, **Table 7**, is presented.

First of all, coverage findings with the recency method can be manipulated depending on the choice of the precoded response models. The ratio between alternatives leading to a 'yes' or 'no' decision for the qualifying categories has the greatest influence on the results.

The varying impact on different types of magazines also poses problems for the required comparison of data (**Table 8**).

According to our investigations from 1978 and 1979, which are empirically founded on a broad base, 'harder' coverages measured on a lower level of rpi in no way lead to significant differences in structure or to a higher concentration of regular readers (**Table 9**).

Differences do not appear to the extent that one would have to expect if essentially sporadic readers were to be prevented from declaring themselves as readers through a more rigorous pre-choice model.

According to the old assumptions, the group of regular users among the readers per issue in 1979 should amount to approximately one-and-a-half times the 1978 proportions (for a reduction in coverage of one-quarter to one-third), but the proportions of regular readers should increase only slightly (43:45, 37:40, 54:56).

* *Expert's judgement about the investigation of the Arbeitsgemeinschaft Leseranalyse e.V., Essen* Die Zeitschriftenleser 1958 *Allensbach, September 1958.*

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In the aforementioned disaster with the recency method, the special investigation of the influence exerted by the number and wording of the *filter* loses its significance. We did not pursue this in further detail. It is known that filters tend to lead to an increased number of people who try to shortcut the interview (skippers), particularly in the case of interviews which put a great strain on interviewers and interviewees.

TABLE 7
Effects of differing methods on the size of the average readership (readers per issue) – measured with the recency technique

	Index sum of readerships (Min = 100)
1 Recall aid	
Design of the masthead cards:	
black and white or multi-coloured masthead cards	
15 titles: none of them differing at a 5% level of significance	101
2 Sampling method	
Quota-random experiments	
13 titles: 2 differing at a 5% level of significance	105
13 titles: 4 differing at a 5% level of significance	111
3 Fieldwork	
Media Analysis '76	
Four field organisations*	
18 titles: all of them differing at a 5% level of signficance	122
4 Rotation (publication intervals)	
LA '63 – weekly	104
– bi-weekly	125
– monthly	141
5 Replicated and parallel readership	
AWA '63	130**
6 Question technique	
Questions with differing categories for readers and non-readers per issue (1:7 and 1:1 respectively)	~200

* *Comparison of minimum and maximum.*
** *Factors for rpi figures 0.82–1.07 weighting.*

If the number of readers per issue can be influenced so conspicuously by relatively minor changes in the questioning model, the development of investigation models – the validity of which can be tested beyond any doubt – becomes all the more urgent. Since the late 1960s, we have held the standpoint that only a combination of concrete and abstract readership registrations can solve the problem of obtaining readership numbers that are close to reality and that can be tested. What we mean by a registration of readership figures is the recognition method using original issues which Politz introduced. In the next part of this paper we report on our experiences with this method.

THE THROUGH-THE-BOOK TECHNIQUE (TTB) ALLENSBACH'S EXPERIENCE

Handling – use of separate surveys

One argument that is brought up against the TTB method is practical in nature, stating that with this method it is impossible to investigate numerous magazines during one interview. A suitcase full of magazines as interview material is a vision that is bound to make interviewers, respondents and media researchers alike shudder. We would advocate distributing a quantity of original-issue tests over many concomitant and interim surveys.

Because there are more than 100 magazines, the actual questionnaire for the media or media marketing investigation will always be limited to abstract questioning models without using through-the-book tests.

The TTB tests must, however, for the time being help to develop abstract questioning models which mirror the reality of media exposure rather than distorting it, as they still do today (**Table 10**).

We use complete original issues, not thinned-out ones. We rarely include more than two and never more than four of these tests in one interview.

The method of ascertaining the readership of one issue by presenting an original copy is often viewed as the best method of measuring the coverage of print media even though it is itself the result of a test, and, hence, subject to misgivings to which we shall return later.

The procedure which Alfred Politz successfully introduced some 30 years ago need not be described in detail here. Above all, it provides for an intensive contact with the issues presented. We have respondents leaf through the issue and ask them whether there is something in it they would like to read or look over. Only then is it asked if the respondent had already read or leafed through the copy at an earlier time.

We consider as readers the group which is absolutely sure of having come across the copy ('Have definitely read

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TABLE 8
The use of different pre-choice question models in audience measurement (rpi) has a stronger influence on illustrated newsmagazines than on radio and television magazines

Question technique: Pre-choice questions with a different number of categories for rpi and non-rpi:

1:6 categories as compared to 2:5 categories

	Index Gross sum of exposures 1:6 categories = 100
4 illustrated newsmagazines	130
6 radio and television magazines	116

Source: Allensbach Archives No 2086, October 1972

Replication 1979/80: Pre-choice questions with a different number of categories for rpi and non-rpi.

	1:2 categories AWA '78 %	*2:5 categories AWA '79 %*	*Index minimum 2:5 categories = 100*
4 illustrated newsmagazines	68.9	50.7	135
4 radio and television magaines	56.3	59.5	95

Source: AWA '79 and AWA '80

TABLE 9
Readers measured on a higher and lower level of coverage caused by using two different probabilities for the qualifying categories resulted in only small differences in structure

	Readers per issue					
	Neue Revue		Quick		Stern	
	1978	*1979*	*1978*	*1979*	*1978*	*1979*
Ratio of rpi categories to non-rpi categories	1:2 %	2:5 %	1:2 %	2:5 %	1:2 %	2:5 %
Readers per issue of this magazine	13.4	9.7	13.4	9.1	27.7	20.2
Structure values (rpi)						
Men	53	50	50	49	53	52
Younger readers (14–29 years old)	33	32	30	27	33	33
Readers with an above average education (beyond grade school)	29	25	34	31	46	46
Reading frequency (rpi)						
Regular readers (I read regularly or very often)	43	45	37	40	54	56

Source: Allensbach Archives: AWA '78 and AWA '79 (unadjusted)
Ratio of 'yes' to 'no cagories in the AWA '78 – 1:2
in the AWA '79 – 2:5

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or leafed through it').

In order to avoid someone answering for reasons of prestige that he/she read the issue although he/she actually did not, we provided the alternative 'Maybe'. For some two years now, we have run parallel tests with other models in order to further develop the TTB method and to help it become fully accepted as a yardstick.

Higher coverage by through-the-book technique than with recency

Our own investigation as well as the different investigative approaches chosen in the US and the UK show that the assumption that different methods measure coverages at different levels but with identical ratios is absolutely false. Using the original-issue coverage numbers as a yardstick, the following can be established: the lower the circulation, the higher the underestimation in the abstract question model using masthead cards; the lower the proportion of regular readers in an audience, the higher the underestimation in the case of the abstract question model using masthead cards; and the lower the price of the issue, the higher the underestimation of the coverage with the abstract model using masthead cards.

The difference between bi-weekly women's magazines, is relatively low. It is relatively high for men's magazines such as do-it-yourself and motoring magazines, all of which are considerably underestimated in the question about last reading using masthead cards (**Table 11**).

TABLE 10
The through-the-book model as IFD Allensbach applies it

With the example of *Stern* magazine

1 INTERVIEWER, please present the magazine *Stern*. "Here is an issue of *Stern*. Would you please leaf through it, glance at some of the pages and then tell me whether you found anything you would like to read?"
(INTERVIEWER, leave respondent enough time to leaf through the issue).

Would	READ A LOT	( )
	READ SOME PAGES	( )
	READ LITTLE	( )
	READ NOTHING AT ALL	( )

2 "And do you remember whether or not you have ever seen *this* issue of *Stern* before – have you read it or leafed through it?"

YES, DEFINITELY read or leafed through it	( )
MAYBE	( )
NO, not this issue	( )

TABLE 11
Higher coverage by TTB technique – differences between magazine groups

	Through-the-book (Allensbach) %	*Recency Abstract pre-choice question model (1:7 categories for rpi vs non-rpi)* *MA'79* %	*Index (TTB = 100)*
Gross sum of exposures			
4 illustrated newsmagazines	65.9	50.5	76
5 broadcasting or TV guides	86.6	67.9	78
4 bi-weekly women's magazines	40.0	29.4	74
but:			
4 weekly women's magazines	33.2	11.2	34
3 bi-weekly automobile and motor magazines	17.8	7.3	40
3 hobby and do-it-yourself magazines	12.3	5.4	44

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TTB coverage in comparison with recency figures: fewer readers in the United States – many more readers in West Germany

The international comparative studies measuring coverage figures by TTB (or the editorial-interest method), as well as by abstract questioning models with the recency technique, suffer because both the through-the-book method and the recency method are handled differently in the various countries and the information about their methodology in proceeding is usually not exhaustive enough in most published reports.

We can be almost certain that the differences which are pointed to in the headline can be explained by different methodological approaches:

United States: here a very restrictive through-the-book model is juxtaposed with a completely unrestrictive recency model (p = .33).

West Germany: an unrestrictive through-the-book model is juxtaposed with an extremely restrictive recency model (p = .125).

In this context, it is very difficult for us to follow our American colleagues in the application of such a restrictive through-the-book model. We have come to different conclusions from our own investigations.

TTB – false reporting of readership

We see a decisive weakness and a degeneration of Politz' original approach in the current American and Canadian investigations with original-issue presentation because not every respondent is presented with an original issue to look at; following a preliminary filter question, only those who, without having looked at it, declare that they generally read the magazine are presented with an issue. Another factor that might influence such comparisons is the presentation of thinned-out magazines. In this connection, we would like to ask our American colleagues to what extent and with how much conviction they have adopted the approach evidently developed by Louise McCarty.

The Simmons brochure 'Magazine Audience Estimating Procedures for the 1980 Annual Simmons Study' stated the following: "The through-the-book method, which is generally regarded as the most precise of the three, has its origins in the method of Confusion Control. In years past, magazine researchers would take out advance copies of a magazine issue to be measured (one that no one could possibly have seen before), expose the advance copy to a sample of consumers, and then generate an audience estimate. Because the estimate was obviously spurious since no one could possibly have seen the advance copy, it was considered to be a measure of false claiming.

"After the issue had been published and was available for a sufficient period of time to accumulate its audience, a matched sample of consumers was shown the issue, and a second audience estimate was calculated."

The actual audience estimate was corrected by subtracting the readers measured with an advance copy

TABLE 12
The confusion control method (TTB) (Is the American procedure correct?)

Hypothetical

EXAMPLE FROM SIMMONS
Market Research Bureau Inc, August '80

	Claimed readership	
Aged copy	17,000,000	100%
Advance copy	6,000,000	35%
Audience estimate	11,000,000	65%

Concrete

EXAMPLES FROM IFD ALLENSBACH

	Claimed readership	
TV HÖREN + SEHEN (Radio/television magazine, weekly)		
Aged copy	4,982,000	100%
Advance copy	4,742,000	95%
Audience estimate	240,000**	5%
AUTO MOTOR UND SPORT (bi-weekly)		
Aged copies*	4,838,000	100%
Advance copy	3,545,000	73%
Audience estimate	1,293,000***	27%

* *Average with smallest differences.*
** *Or 0.09 readers per single copy*
*** *Or 2.7 readers per single copy.*

Source: Allensbach Archives No 1413, July 19, 1980

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from the number of readers generated by an aged copy. This procedure is difficult in handling and very expensive. Simmons continues: "In order to overcome these difficulties, Louise McCarty, working with *Life* magazine, developed the through-the-book procedure which, while it produced audience estimates which were comparable to what had been obtained using the confusion control procedure, was much simpler and less expensive to administer."

Our experiments with advance copies show that it is not correct simply to subtract the readership of an as-yet unpublished magazine from that of the published (aged) magazine. It can be proved that 'readers per issue' are thereby reduced to an implausible extent. It is obvious that persons who are usually readers of this magazine term themselves readers of unpublished issues, too (**Table 12**).

In the original-issue test we conducted for issues which had not appeared yet, we reached coverage figures of about 70–90% of the figures reached for issues which had appeared.

The original-issue test, too, seems to demand too much of the respondents if they are expected to make a reliable statement on reading behaviour concerning a certain issue.

What we get is, above all, a probability statement on the ideas the respondent has about his/her own reading behaviour, ie, his/her usual, habitual reading behaviour. (In this context, we refer to the studies: Kevin J Clancy, Lyman E Ostlund and Gordon A Wyner, 'False Reporting of Magazine Readership', *Journal of Advertising Research* **19**, 5 October 1979; and Eric Marder, 'How Good is the Editorial-Interest Method of Measuring Magazine Audiences?', *Journal of Advertising Research* **7**, 1 February 1967.)

This restricts the value of original-issue tests but it should not impair their significance as the most reliable tool in providing an improved identification of the different objects.

Other findings

The same gradation of exposure probability for a certain issue results in the various categories of our verbal-numerical frequency question for issues that have not appeared yet.

The exposure probabilities ascertained empirically by original-issue presentation are considerably lower in the higher frequency classes, however, by means of the TTB technique, approximately 5% are found among those who rated themselves as non-readers when presented with masthead cards (**Table 13**).

The consequence of this is that one would have to reckon with more coverage growth according to the original-issue tests, but at the same time less exposure intensity in the case of multiple advertising than previously was thought to be the case.

The relationship between the frequency question and a subsequent question about the last exposure is obviously more direct than the relationship between ascertaining the readership of a certain issue and a question posed later about the frequency with which an

TABLE 13
Frequency and rpi by the recency and through-the-book techniques

The homogeneity of or the correlation between the frequency and the recency questions is high, at least if the question is asked in the same interview. Perhaps an artefact.

The connection between frequency and the number of readers ascertained by the through-the-book method is less marked.

	Frequency categories					
	Read regularly, that is, all 12 issues %	*Read very often, but not all 12 issues* %	*Read quite often* %	*Read from time to time* %	*Read very rarely 1 or 2 issues at the most* %	*Not read or leafed through within the last 12 months* %
Readers per issue by						
Masthead cards	88	78	52	39	23	(Filter)
Through-the-book	58	31	29	16	8	4

Two monthly magazines (home and garden magazines: Schöner Wohnen, Zuhause)
Source: AWA '75

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issue is read.

In this connection we face the urgent research concern to find out which value comes closer to reality.

The problem of the optimal time span between the publication of a periodical and the interview

If the interview is conducted too soon after the publication of an issue, the publication has not yet reached all its readers; if it comes too late, too many cannot recollect correctly whether or not they were readers of this issue. This conclusion does not take into consideration one important finding: as a rule, the dispersion of original-issue coverage is much less marked by the varying age of the copies presented than by the general differences which result. This is the case for both coverage figures ascertained after the presentation of original issues and coverage figures ascertained on the basis of an abstract and restrictive pre-choice question model, as it is used by the AG.MA.

The original-issue coverage figures are practically always considerably higher, no matter how long the time span between the publication date and the time of the interview.

Numerous Allensbach investigations have shown that the assumed dependence of the results of original-issue tests upon the time span between the publication date and the interview does not exist (**Table 14**).

We must assume today that the coverage measurement's relative insensitivity to the age of the original issues presented is to be ascribed to the fact that with the through-the-book method we primarily register the normal reading behaviour rather than the reading of a particular issue.

PLAUSIBILITY – SOME UNORTHODOX REMARKS ON EXPERIMENTAL DESIGN

We would like to call attention to the following point. According to Festinger's theory of cognitive dissonance, we must begin with the assumption that people try to avoid or to reduce dissonance in their behaviour and in their opinions.

We can present precise figures from over a period of years of election research to corroborate this. About two-thirds of those persons who have changed their party preference since the previous election respond to a recall question by stating that at the previous election, they had already voted for the party they prefer now. We must therefore take into account that their answers will

TABLE 14
Are the results dependent upon the age of the issue?

Periodical	*Age of issue*	*Test year*	*Coverage according to original issue test* %
Stern	22 weeks	1979	23.7
	6 weeks	1979	24.0
Burda Moden	4 months	1975	9.3
	2 months	1975	11.2
Schöner Wohnen	4 months	1975	8.7
	3–4 months	1975	9.5
	2–3 months	1975	9.8
Zuhause	8 months	1974	7.1
	4 months	1975	7.2
	3–4 months	1975	7.5
	2–3 months	1975	6.6
Das Beste	4 months	1975	10.3
	3 months	1975	9.8
	3 months	1976	10.9
	2 months	1976	11.0
Pardon	11- 12 months	1975	3.6
	3 months	1975	3.1

Source: AWA '76, vol 1, Stern: Allensbach Archives No 3071/A' and A''

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possibly agree to a greater extent and be more consistent when measured by an interview than in reality is the case.

The effectiveness of this process is also indicated by the results of factor analyses, which primarily extrapolate factors drawn from the pre-choice statements of only one question, although responses to other questions should, in line with the scheme of expectations, have been assigned to the same dimension.

For media experiments – and why not for intensive interviews as well?* – this behaviour could lead to a higher degree of consistency than warranted being measured between investigations in an interview. This is all the more true the less the respondent is interested and involved in the topic, or, on the other hand, the more the respondent takes a relationship between two answers for granted.

This may also explain the higher media exposure probabilities which we find for the upper categories of the frequency question, if they are ascertained by means of the recency question and masthead cards as against, by contrast, by original issue presentation (see **Table 13**).

In discussions about 'better' or 'worse' results another argument is used which also appears questionable to us in this context and which needs to be tested. There is talk of much more plausible readerships if women's magazines are hardly read by men and, conversely, if men's magazines are hardly read by women. If these considerations of plausibility are used to accept or to reject the one or the other investigative method, we consider this to be dangerous.

Original issue tests show us, for example, that magazines are read by persons who do not really belong to the specific target group to a far greater extent than we had originally assumed. This kind of exposure seems plausible when you think of the many opportunities a man has in the course of a month to read or leaf through a women's magazine that appears monthly, even if this exposure only occurs by chance. Is it not the presentation of the original issue as the appropriate recall aid, which is likely to produce the 'best' results?

And as regards the 'quality' of these unexpected readers, it is not so bad at all. While men who read women's magazines make less use of them, they do make use of approximately two-thirds of the reading material women take in in these magazines. The same thing applies in reverse: the women readers of car and motor magazines make less use of them than do the men, but they still take in about 50% of the reading material that the men do in these magazines.

Another thing that has put us on the alert is the fact that in the Cumberland Lodge Research Study our English colleagues have posited an even stronger profiling for the display technique, using magazines that are strictly ordered by categories and that they have presented this as a positive criterion.

It is to be assumed that in a strongly selective process magazines that appear to be especially geared to the respondent have the advantage in the abstract questioning model, while the others have the disadvantage. To a certain extent, there is preselection among men: women's magazines, 'they're not really for me'; as such, they tend to be 'repressed' by men in the course of the interview.

FURTHER DEVELOPMENTS – ALLENSBACH'S VIEW

We were very impressed by the approach Erwin Ephron suggested for the 'Golden Yardstick' or the 'standard' of magazine-issue audience: "Those individuals who positively identify themselves as having read the issue, yesterday, for the first time, using a through-the-book interview covering a limited number of issues."

It is not the sampling design and the expenditure in terms of time and money that discouraged us from a practical test of this, but the problems of interviewing psychology involved with this model.

In this investigation, we see the question about reading for the first time as being a definite problem. We believe that this question makes excessive demands on the respondents and that comparable, correct values cannot be established, certainly not for all magazine categories. Our practical experience tells us that, if we use this method, we must expect those magazines to have the advantage for which the number of reading days is above average (TV and radio guides, for example). In addition, in a number of cases the possibility cannot be excluded that the respondents will report their response to the magazine in general rather than to the specific issue.

We have decided to continue working at getting the through-the-book method accepted as a yardstick. Our most urgent concern is the clarification of the extraordinarily high number of secondary readers we measured for certain individual titles.

We are working on this problem by using follow-up questions and revised TTB techniques in which, for instance, we have the interviewers register the respondents' remarks as they look through the magazine and then request the interviewers to indicate whether the respondent had read the magazine before or whether he/she had not. We also try to shed light on the exact group of readers by means of a follow-up question about how many articles from this issue the respondent had already read.

* *Belson, W A* Studies in Readership *London, 1962.*

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A new approach

Separate from the through-the-book technique we launched a parallel experiment which may possibly be used as a validation model.

Yesterday or the day before yesterday – used to which extent?

The pre-choice question model hitherto mainly used in Europe – the question about most recent reading using masthead cards – has one serious weakness, aside from the other disadvantages such as filter technique and a number of categories for readers or non-readers. This weakness is the different recall performance required of respondents if they are to qualify as readers in the different publication periods.

	Memory period
for weeklies	7 days
for bi-weeklies	14 days
for monthlies	1 month

We suggest using a model requiring the same recall performance and a short-time memory period for all magazines, thus avoiding the problem of rotation in separate questioning in line with the different publication intervals. Furthermore, this leads us away from restriction by media exposure and brings us toward ad exposure.

Sore points such as sampling error or parallel readership are of secondary significance in this model. In brief, our procedure looks like this:

(i) presentation of all masthead cards.

(ii) sorting them according to the categories of the verbal-numerical frequency question (last category: "Never read or glanced through" as a filter).

(iii) which of these magazines read or browsed through yesterday and/or the day before yesterday.

(iv) how much of the total magazine was read or looked at during this time?

Everything, almost everything	.90
More than half	.70
About half	.50
Less than half	.30
Very little, almost nothing	.10

By multiplying by the factors 3.5 for weeklies; 7.0 for bi-weeklies; and 15.0 for monthlies, we obtain figure for 'effective coverage', ie, approximate figures for advertising exposure. An important prerequisite of this model is the harmonious distribution of the interviews over all the days of the month.

The disadvantage of a relatively wide statistical margin of error, which is a result of the multiplication by 3.5, 7.0 and 15.0, may be balanced out by larger, temporally staggered samples and/or by a summarising analysis of relatively homogenous magazine groups in order to develop calibration and adjustment documentation from this.

It should be noted that, unlike the models about 'reading yesterday' discussed in the 1960s, this model avoids the problems arising from the information about first reading and leads to average advertising exposure by measuring the amount of contributions read yesterday/ the day before yesterday.

Our first experiences with this new model begin in March 1981.

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