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5.2 An experiment with grouped titles

INTRODUCTION

The publication list for the British National Readership Survey has been limited to 120 national newspapers and consumer magazines. Readership data are also collected for 84 regional newspapers in their own circulation areas; estimates are published for all regionals but only for a small number of leading English and Scottish regionals individually.

In recent years there has been a growing demand from advertising agencies and media owners to add further consumer magazines to the NRS publication list. These publications carry a very substantial volume of advertising and many of them are concerned with the specialised interests of the general population. It is therefore important to have regular data on their readership; at the same time publications with a penetration of one per cent or less of the adult population can only be studied adequately through large national surveys of high quality, such as the NRS. But there are sound reasons for believing that the current NRS would be overloaded by the addition of further titles.

To meet the demand for an extended media list therefore requires a fundamental re-appraisal of the current NRS technique. A development working party of JICNARS tackled this problem during 1981 and 1982. Then in the summer of 1982 Research Services Limited undertook a small experimental study at the invitation of JICNARS to obtain some first indications of the approach being developed. On the basis of its findings JICNARS has commissioned a larger pilot study on the scale of one thousand interviews with fieldwork in May 1983, which it is hoped will confirm the promising indications of the pre-pilot work.

This paper is concerned with the methodology and results of the small 1982 RSL study. It sets out evidence on the problems of the current NRS method and goes on to describe the principles through which the Grouped Title method has attempted to solve them. It concludes with notes on the additional data that the experimental method would provide if it is successful.

PROBLEMS OF THE CURRENT NRS METHOD

The main features of the British NRS readership method used since 1968 are: informants are shown individual masthead cards for each publication in 24 rotations of publication categories and in either forward or reverse order of titles within these categories; informants respond to each masthead with a frequency claim that also acts as the first filter; frequency scales vary in structure with from five to seven positive scale positions, depending on publication frequency; and the recency question is asked of all titles obtaining a positive claim at the frequency question; the interviewer classifies the last reading occasion for each title as within or outside the publication interval.

By using fixed masthead orders it is possible to measure a number of distinct order effects in the AIR estimate obtained. These effects were reported at New Orleans (1) and can be briefly summarised here.

The first of these effects is Rotation Effect. This is the tendency for a given publication category to generate lower gross reading claims when it is presented to informants later in the masthead booklet. Whitley showed that there was no systematic variation in gross readership claims for dailies, Sundays and weeklies depending on rotation. But monthlies obtain 18% more claims than the average for all interviews when they appear in the first position and 17% less than the average when they are in the last position in the booklet. This effect can be expressed as a single figure by dividing gross readership in the last two positions. On the data reported at New Orleans the value of the Rotation Effect for monthlies was 1.27.

Secondly, there is Order Effect. When a group of publications is presented in the forward order the titles appearing early in that group will tend to obtain higher readership claims than when the same group is presented in reverse order. Whitley gives examples for women's weeklies and women's monthlies. For the latter, the first 14 of 28 titles obtained a gross AIR index of 140 in the forward order and 104 in the reverse order; the last 14 of 28 titles obtained index values of 104 in the forward order and 111 in the reverse order. In this particular example the Order Effect can be expressed as a single figure, in the same way as before, with a value of 1.21.

Lastly, Title Confusion is the effect observed when two confusable publications are presented in the order AB as opposed to BA. For the well known case of *Homes & Gardens* and *House & Garden* these two titles

obtained indexed estimates of AIR of 107 and 73 when presented in that order. In the reverse order these indices were 118 and 156 respectively. The effect can be expressed as a single figure by dividing the sum of the estimates when each is seen second. The Title Confusion Effect in this case is 1.38.

Each of these order effects implies that a corresponding number of the claims made by individuals are incorrect; they may be over-claims or under-claims or a combination of the two. But for monthlies in particular the scale of the various effects demonstrates that a very considerable proportion of all individual AIR claims are necessarily in error. It follows that, if a significant number of extra titles were added to the NRS publication list in the current method, the scale of Rotation and Order Effects should be expected to increase and the average readership estimates over all rotations should decline.

This evidence establishes that it is necessary to find a means of reducing order effects very considerably before the objective of extending the publication list can be tackled. We go on to describe the features of the current method that appear to generate the various effects and the detailed changes in the experimental questions that were introduced to minimise them.

THE GROUPED TITLE METHOD

In the first place we hypothesise that Title Confusion is caused by presenting informants with potentially confusable titles consecutively rather than simultaneously. The grouping of such titles on a single card is a possible solution to this problem.

Secondly, in order to detect order effects we must present stimuli to informants in known orders. It is not a practical possibility to sort very large numbers of individual title cards back into a pre-determined order between interviews, but with a limited number of grouped title cards this can be done.

Thirdly, if titles are grouped, type-set names are to be preferred to mastheads (on the evidence of Danish discs). In the experiment a total of 30 grouped title cards were used with an average of about six titles on each card. This is an example:

Cycling	Motoring	The Bike
Motor Cycle Weekly	Which Bike?	Bike
Motor Cycle News	Superbike	

We hypothesised that contributory factors to order effects in the current NRS method were the complexity and variability of frequency scales as the first filter, and also the absence of a defined lower bound to the definition of a reading event. Accordingly the following method was introduced for the first filter for all cards:

'As long as you can remember spending a couple of minutes reading or looking at any of the publications on a card in the past year it goes here.'

Three piles — 'Yes', 'No' and 'Not sure' — were formed. The informant re-sorted the cards in the last two piles before they were discarded.

After this check, all 'Yes' cards were turned over to show a standardised frequency scale of which **Figure 1** is the latest version.

The informant allocates each title on each 'Yes' card to one of these four frequencies.

A standard recency question is then asked for all titles seen in the past year for the same card:

'Which if any, of these newspapers/magazines did you read or look at 'Yesterday'?'

'Which others have you read or looked at since last .....day?' (PAST 7 DAYS)

'When did you last read or look at any copy of ...?' (FOR EACH TITLE READ IN PAST YEAR)

(CODED BY INTERVIEWER AS 'PAST 4 WEEKS', 'PAST 3 MONTHS', 'PAST YEAR', 'LONGER AGO')

The emphasis is accordingly placed on periods of time rather than on individual titles in recalling the most recent reading event.

Subsequently, further details are obtained about each magazine claimed to have been read 'Yesterday'.

The RSL Grouped Titles experiment was based on interviews with 114 adults in eight clusters. These informants had been interviewed by the current NRS method about two months earlier. The experiment was designed to interlace publication orders between the experiment and the original NRS interviews.

RESULTS OF PRE-PILOT

Average Issue Readership
The AIR estimates obtained in the Grouped Titles experiment can be compared with the estimates obtained from the same informants by the current NRS method about two months earlier and also with the full NRS estimates for the first quarter of 1982. Results are based on 103 titles common to all three methods. (**Table 1**)

The experimental estimates were very similar to those obtained by the full NRS method, except that for monthlies the levels correspond with those found when monthlies are in the first position rather than with the average for all positions.

5.2 An experiment with grouped titles

FIGURE 1

WEEKLY MAGAZINES	MONTHLY MAGAZINES	
Cycling	Motoring	The Bike
Motor Cycle Weekly	Which Bike?	Bike
Motor Cycle News	Superbike	

ALMOST ALWAYS AT LEAST 3 ISSUES OUT OF 4	QUITE OFTEN AT LEAST 1 ISSUE OUT OF 4	ONLY OCCASIONALLY LESS THAN 1 ISSUE OUT OF 4	NOT IN THE PAST YEAR

TABLE 1

		NRS Quarter 1 1982 %	114 Pre-pilot informants NRS method %	Experimental method %
Dailies	(10)	110	100	100
Sundays	(8)	122	115	123
Weeklies	(33)	147	122	133
Monthlies	(52)	139	131	167
		518	468	533

The experimental gross AIR estimates may be broken down between informants presented with titles in the forward and reverse order:

	NRS method %	Experimental method %
Forward experimental order	535	530
Reverse experimental order	413	526

These results suggest that the experimental method may give more stable and consistent estimates between orders than the current NRS method

Rotation and Order Effects

The rotation effects present in the experimental data can be measured by comparing the differences between the AIR levels for sub-groups of informants presented with varying rotations in their NRS and experimental interviews. For example, in the original NRS interviews 53 informants were presented with monthlies 'early', ie in the first or second positions, while 61 informants were presented with monthlies 'late'. In the subsequent re-interviews each of these groups was divided approximately equally into those who completed the grouped title questionnaire in forward and reverse order. Hence the experimental results are not subject to net order effects. We may therefore represent the rotation effect for monthlies in the NRS method by factoring out the residual variation for the same informants in the experimental method:

$191/88 \div 197/137 = 1.51$ (NRS Rotation Effect-Monthlies).

This procedure may be repeated for weeklies by considering the 55 informants who saw weeklies 'early' and 59 informants who saw weeklies 'late'. In this case the results were:

$111/135 \div 110/158 = 1.18$ (NRS Rotation Effect-Weeklies).

5.2 An experiment with grouped titles

The corresponding measures of order effects in the NRS data may be calculated by dividing titles into those which were seen early and late in the forward order of the original NRS interviews. In the reverse order the same titles were of course seen late and early respectively. As before, these two groups of informants were divided approximately equally in the subsequent grouped titles interviews into those who answered the experimental questionnaire in forward and reverse orders. NRS order effects can therefore be measured by factoring out residual order effects present in the re-interview. The results for monthlies and weeklies were as follows:

$262/202 \div 335/334 = 1.30$ (NRS Order Effect-Monthlies)
and
$273/229 \div 353/349 = 1.18$ (NRS Order Effect-Weeklies)

We may now repeat this analysis with respect to the experimental method. In this case we have forward and reverse orders only. We divide informants to the experimental interview into 51 who saw Grouped Title cards 1-15 'early' and cards 16-30 'late' in the forward order.

The other 63 informants saw GT cards 1-15 'late' in the reverse order and cards 16-30 'early'. As before we can factor out residual effects from the original NRS interview. The results were as follows:

$167/162 \div 119/115 = 1.00$ (GT Order Effect-Monthlies)

$147/188 \div 116/139 = 0.94$ (GT Order Effect-Weeklies)

$561/566 \div 460/461 = 0.99$ (GT Order Effect-all publications)

There is therefore no evidence of order effects in the experimental method, whereas the corresponding NRS interviews with the same informants showed the expected substantial Rotation and Order Effects.

Title Confusion

A sample of 114 informants is a very small base on which to examine title confusion effects. The following example (**Table 2**) show the percentages of informants making non-nil frequency claims in the NRS interview for two of the best known cases of confusable pairs of magazines.

The corresponding effect for the *Sun* and the *Daily Mirror* was 0.96, confirming that title confusion does not occur in the NRS method for leading national newspapers.

Since the experimental method attempts to overcome title confusion by presenting informants with

218

TABLE 2

| | NRS non-nil claims | | Confusion |
	Forward	Reverse	effect
Bases	48	66	
	%	%	
Homes & Gardens	10	6	1.6
House & Garden	6	9	
Woman	44	18	1.4
Woman's Own	33	30	

pairs of confusable titles simultaneously, there can be no corresponding analysis which identifies title confusion effects. But it may be noted that, whereas the NRS method yielded non-nil readership claims of 8% for both *Homes & Gardens* and *House & Garden*, the experimental method gave levels of readership in the past year of 11% and 7% respectively. The UK circulations of the two publications in the first half of 1982 were 189.000 and 90.000 respectively.

Partial Validation

The experiment included partial validation of readership claims through detailed investigation of 'Yesterday' reading claims. All such claims were described in terms of the number of separate issues seen, whether each issue had been read previously, age of issue, where seen and how it had been obtained.

In the main readership section there were 183 claims to have read weeklies in the past 7 days and 238 claims to have read monthlies in the past 4 weeks. Hence the expected number of first reading events on the average day that would confirm these estimates would be 26.1 for weeklies and 8.5 for monthlies, a total of 34.6 events.

The 'Yesterday' reading questions showed that there were 50 claims to have read weeklies yesterday. They generated a total of 59 separate issues of which 32 had been read for the first time before yesterday. A total of 15 monthly reading claims 'Yesterday' generated 21 separate issues of which 10 had been previously read. Hence this detailed investigation yielded a total of 38 first reading events yesterday, of which 27 were for weeklies and 11 were for monthlies.

The total number of first reading events 'Yesterday' therefore confirms the gross AIR estimates for all magazines obtained by the experimental method.

CONCLUSIONS

The RSL pre-pilot study yielded the following conclusions:

(i) the use of grouped title cards makes it possible to add about 70 extra magazines to the publication list without increasing the average length of the interview or becoming unworkable in the field;

(ii) rotation, order and title confusion effects are at least very substantially reduced compared with the current NRS method;

(iii) the experimental gross AIR estimates are broadly similar to those obtained with the current NRS method. Where they differ, the partial validation evidence supports the experimental estimates.

The larger pilot study on the scale of one thousand interviews conducted in May 1983 has a publication list of about 190 national newspapers and magazines on a total of 37 grouped title cards. The results, which are expected in the early autumn of 1983, will show whether the promising indications of the pre-pilot are substantiated for larger individual publications.

The partial validation questions asked in the pre-pilot are repeated in the pilot. They will provide data on age of copy, source of copy and place of reading based on 'Yesterday' first reading events for leading weeklies. For other magazines these data will be limited to groups of publications. The results will also include comparisons between modelled cumulative readership and the observations obtained from the extended recency scale.

REFERENCES

1 Whitley, Edward (1981) *Some rotation effects in the British survey.* (Readership Research: Theory and Practice: New Orleans).