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1.1 Average issue readership measurement in Britain

INTRODUCTION

The aims of this paper are twofold: to provide a factual, adequately detailed description of the current methodology of the National Readership Survey (NRS), conducted by the Joint Industry Committee for National Readership Surveys (JICNARS), as a benchmark against which may be compared the variations in techniques of data collection and treatment employed by other countries which, nonetheless, follow a broadly similar approach; and to outline the historical development of readership research in Britain, drawing attention to selected, major methodological contributions and their effect (if any) on present thinking and practice.

At this stage, a number of purposive restrictions to the coverage of this paper - necessitated by considerations of space - should be made clear.

First, as the paper's title implies, its focus is the measurement of the audience of the average issue of newspapers and magazines. Save in the detailed description of the current NRS methodology, little attention is given to the collection of other data in the context of readership surveys, whether on exposure to other media, or the classification of readers (demographically, psychographically or otherwise) or on variables assumed to correlate with the 'quality' of contacts between readers and print media vehicles.

Second, since the concentration is on the National Readership Survey and the events which have had more or less direct influence on its present form, this paper in no way offers a complete history of British readership research. Acknowledgement should be fully made of the very considerable volume of *ad hoc* surveys and continuing media research originating from individual publishers and other sources which finds no mention in these pages; much of it - particularly in the earlier part of the period here covered - has provided not only actionable data but also insightful, innovative thinking on methodology. A fuller, chronological listing of British readership research highlights is to be found in Admap's *Landmarks in media research* (1).

Third, the descriptions of methodological projects provided in this paper are necessarily brief; the reader is strongly advised to consult the references cited (if he is not already familiar with them) for fuller information.

Fourth, as far as developmental and methodological work directly related to the National Readership Survey is concerned, the projects mentioned below do not, again, provide anything near a comprehensive listing. Largely on specific and relatively narrow problem areas, many other investigations have been undertaken over the years, under the aegis of the Institute of Practitioners in Advertising (IPA) prior to 1968 and of JICNARS subsequently.

In conclusion of this Introduction, it should be noted that the views expressed in this paper are the author's own and not necessarily those of JICNARS.

SOME HISTORY: 1930–1967

Readership research has by now a history of some 50 years in Britain; we may note, amongst the earliest examples, surveys conducted by the Institute of Incorporated Practitioners in Advertising (IIPA – now the IPA) in 1930, 1931, 1934 and 1939; *The readership of newspapers and periodicals in Great Britain* (Incorporated Society of British Advertisers, 1936); and surveys by the London Press Exchange Ltd in 1934 and 1939.

At least as far as newspapers were concerned, the years of World War II did not result in complete cessation of research. We may instance the publication of *Newspaper reading in the third year of the War* by P. Kimble (London: Allen and Unwin, 1942); L Moss and K Box *Newspapers and the Public* (London: Central Office of Information, 1943); surveys of newspaper readership by Mass-Observation Ltd in 1941, 1942 and 1944 and by the British Institute of Public Opinion (Gallup Poll Ltd) also in 1944.

Many of the concepts and definitions of 'reader' and 'reading' encountered in the earliest British work would appear foreign by today's standards but, by 1947, principles with which we are now familiar had already become established. In that year, the IIPA published its *Survey of Press Readership* and Hulton Press - a major periodical publisher of the period - produced the first of the series of Hulton Readership Surveys, which were to continue until 1954.

With the end of the Hulton Surveys, the IIPA took over the responsibility of regular readership measurement and, indeed, that year's survey by the Institute was the first of the series from which the present NRS stems. It employed a stratified, random sample (with an unweighted base of 16,594 informants), compared with Hulton's quota approach; and the IIPA defined issue contact in terms of 'looking at' or 'seeing', as contrasted with Hulton's 'reading'. However, the more important point is one of comparability rather than of difference:

both surveys adopted what would now be termed the 'recent reading' (RR) approach to average issue audience estimation (although there was one interesting variation between the IIPA's 1954 survey and current NRS practice: questioning on the readership of Sunday newspapers related to contact with any issue on the Sunday prior to the date of interview, rather than treating this publication group as weeklies).

With the wisdom of hindsight, it is interesting to re-read the contemporary, confident proclamations regarding the method's freedom from methodological bias: "The technique of the readership survey is therefore to calculate the number of people who have looked at each daily on a day, each Sunday during one weekend, each weekly during a week, and each monthly during a month – irrespective of whether it was the current issue of the publication or not. Statistically this is the same as calculating the total average readership of any issue during the course of its life." (2)

The wind must have seemed set fair in 1954; but clouds were soon to gather. No IIPA survey appeared in 1955, due to what we should now term 'industrial action' but was then, probably, more forthrightly referred to as a strike, which seriously affected British publishing. When the series was recommenced in 1956, it was with some changes in technique, including the rotation of the order in which publication groups were presented to the informant. Not surprisingly, different readership levels were obtained – lack of robustness of measurement techniques in this field is no new discovery. However, a far greater threat to technical complacency arose from an innocent-seeming conversation two years later, in 1958.

Early that year, Dr William Belson, then of the Survey Research Unit at the London School of Economics, approached Harry Henry, who was at the time Director of Research for McCann-Erickson Advertising Ltd and also Chairman of the Technical sub-Committee of the IPA's NRS Controlling Committee. The Unit's primary concern was field research methodology in the social sciences and Belson was interested in the possibility of research on the workings of the memory factor in the interview situation. He asked Henry for any suggestions on an interesting field of application – and the answer was 'readership research'.

Belson reported preliminary findings to the Technical sub-Committee in early 1959 and the main study which was then commissioned took place in 1960; the definitive version of its findings was not, however, published until 1962 (3).

In essence, the research method employed was to subject a sub-sample of NRS respondents to a re-interview during which the apparent accuracy of their initial claim to have read a publication within the quali-

fying period was checked by intensive questioning. The second interview principally turned on "(a) the use of recent issues of the publication concerned for (solely) familiarisation purposes; (b) an examination of the respondent's opportunities for looking at the publication; (c) the challenging of the claimed last occasion; (d) the filling in of the various circumstances of that claimed last occasion; (e) the persistent challenging, cross-checking and cross-dating of these various circumstances. In principle, what we were doing was establishing and then dating the circumstances or the 'surround' of the last reading event rather than trying directly to date *the reading event itself.*" (4)

Four readership claims from the first interview were checked per informant; sample bases per title varied from 61 to 206. The results were disturbing (**Table 1**).

For all publication groups, both apparent *under-* and *over-*claiming (at the NRS interview) was demonstrated, but whilst these effects tended to balance one another in the case of daily newspapers, this was not so for the other groups in general and for monthlies in particular, where under-reporting of readership predominated. (The mean levels shown above conceal the fact that, for Sunday newspapers, net underclaiming title by title ranged from 3% to 35% of the intensive interview level and, for weeklies, from 6% to 24%.)

The strongest correlate of erroneous readership claims was found to be frequency of reading, as measured at the intensive interview on a verbal scale (which factor, as Corlett has pointed out (5), explains the variation across publication groups, as regularity of reading is correlated with frequency of publication).

As far as apparent sources of erroneous claims were concerned, Belson's findings pointed towards failure, by many respondents, to understand one or other of the special terms used in the Survey, such as 'looked at', 'last time' or 'any copy'; a strong tendency to answer in terms of usual or habitual behaviour; deviation from instructions by interviewers; confusion between publications;

TABLE 1
Readership of any issue within qualifying period

	NRS Interview %	Intensive Interview %
Average for:		
Daily newspapers (7)	23.2	23.7
Sunday newspapers (7)	26.9	31.7
Weeklies (5)	37.6	42.4
Monthlies (9)	9.2	14.8

sheer interview length; and lack of effort on the part of respondents.

Within this study, Belson went on to devise and test a series of five successive modifications to the then standard NRS technique, involving changes in the prompt aids and their use, in the timing and repetition of explanations to the informant and in the number of hurdles a respondent had to surmount before a positive readership claim was accepted. The final modification reduced the total number of apparently erroneous claims made by approximately half but still depended, for its more 'correct' net levels, on some balancing of over- and under-reporting.

Troubles seldom come singly. Whilst Belson's work was still in progress and well before its results were reported, another major problem appeared on the Technical sub-Committee's agenda: replicated readership. For some time, the high readers-per-copy figures obtained for certain magazines had given grounds for disquiet; then, in 1959/60, research by the National Magazine Company on readers' claimed source of their copies led to estimates of the numbers of reader-buyers grossly in excess of known circulations. The thought emerged that, recall accuracy quite apart, the number of readers of any issue within a period of time equal in length to the publication interval could *not* provide an unbiased estimate of average issue readership if people were inconsiderate enough to spread their reading of a given issue over more than one day or week or month, depending on the publication group in question. Once exposed, this problem became the subject of extensive discussion, as evidenced by the winning entries for the 1962 Thomson awards. (6)

The report on Belson's results became available to the NRS Controlling Committee and its Technical sub-Committee in September 1961; the conclusions he drew were endorsed particularly in respect of the apparent net under-reporting of monthlies' readership. However, the sub-Committee came to the conclusion that, in respect of the modified technique that had been advocated, "... the requirements which Dr Belson had laid down as necessary conditions for it to be successful – notably his requirements about the selection and the characteristics of the interviewers required – were unlikely to be a practicable possibility for any research organisation faced with the job of carrying out the Survey on a large scale, on a continuous basis and on a reasonable budget." (7) Further, the whole problem of what the British term 'model bias' – replicated and parallel readership – had been entirely outside Belson's terms of reference.

(It is interesting to note that the model bias problem, as first enunciated around 1960, concerned replicated readership only; the concept of parallel readership came

later: "In examining the question of 'replicated readership' more closely it seemed to us that the traditional approach overlooked a further effect, to which we gave the name of 'parallel readership'. 'Parallel readership' would occur when the informant had actually read *more than one* issue of the magazine in question in the past month" (8).)

Proposals for further experimental work were therefore invited from the British Market Research Bureau (BMRB), the NRS contractors at the time, with two main objectives in mind: first, to measure the magnitude of replicated/parallel readership effects in practice, as distinct from their theoretical impact; and, second, to test one or more practical alternative techniques which would overcome both model bias problems and the difficulties of the traditional technique revealed by Belson's work.

The consequent research took place in June–August 1962. Using samples of women only, it comprised three separate sub-projects. The first, employing specially trained interviewers, aimed quantitatively to estimate the magnitude of replicated and parallel readership for four weekly and four monthly magazines, via intensive interviewing and using five recent issues of each publication as prompts. The second sub-project tested the 'life-old-issue' (ie through-the-book (TTB)) technique for eight monthlies, using three-month-old issues. The third phase of the research employed a 'modified recent reading' (MRR) technique, applied to all 30 weeklies, ten Sunday and 11 daily newspapers covered by the NRS at the time. Here the objective was to attempt to pinpoint *first* reading of an issue within the relevant period by use of supplementary questioning. The intensive interview readership estimates, corrected for model bias, were to serve as yardsticks for the accuracy of the TTB and MRR results.

The conclusions drawn from this 1962 research fall under two distinct headings.

As far as the effects of model bias were concerned, the readerships of the 'average' monthly and weekly magazine, as measured by the NRS at that time, could be taken, for illustration, as 10% and 20% respectively. Belson's work had suggested that more correct levels would be 13.5% and 22%; but the BMRB data indicated that the net effect of correcting for replicated and parallel readership would be to *increase* these figures still further to 15% and 23.5%.

Turning to the alternative techniques tested in the 1962 work, we may quote BMRB's own report (9). Using the model-bias-corrected intensive interview results as a yardstick, in relation to the TTB technique as applied to monthlies they concluded that "This technique produced readership estimates which were too low, apparently because informants tended to have forgotten reading

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which had occurred earlier in the life of the issue. Since this technique would in any case be rather expensive to use on a larger scale, it does not seem to be worth pursuing further."

On the results from applying the MRR technique to weeklies, BMRB's conclusion was that it ". . . worked moderately well but appeared to achieve these results by means of compensating errors. Further development of it is therefore necessary before it can be recommended as an alternative to the traditional technique."

Reverting to the monthly magazines problem, BMRB's opinion was that the best alternative to TTB (which, on their judgement, had proved satisfactory – at least in the form used in the experimental research) seemed likely to be an improved version of MRR using a week as the memory period, rather than a month.

In the event, further experimental work on the modified recent reading approach was not carried forward; two years after the 1962 work, Corlett noted that "The IPA Technical Sub-Committee is now (sic) planning further experimental work in order to choose between these three techniques" (10) the three being MRR, TTB and the estimation of average issue readership on the basis of reading *frequency* claims, in which interest had been aroused by the early suggestions of Agostini (11) and Frankel (12); and it was this latter subject of reading frequency which occupied the next phase of British developmental research.

Proposals for the experimental addition of reading frequency questions to the NRS were put forward by BMRB in late 1962 and a four-point verbal scale, similar to Agostini's, was incorporated in the questionnaire from the beginning of 1963. The intention was to estimate issue contact probabilities by cross-tabulation of the frequency claims and RR responses, rather than estimating them separately via extensive TTB surveys, as Agostini had originally proposed. None of the data from this trial run of frequency questions was ever published, however, because, as Corlett and Osborne note, ". . . by the time sufficient interviews had accumulated and tabulations had been prepared, it was quite clear that this particular scale was not the best that could be devised. . ." (13).

Between early-1964 and mid-1965, further work on reading frequency estimation was carried out in three phases, briefly described below and more fully documented in (13).

First, 20 extended interviews explored the language in which readers themselves described their frequency of contact with publications.

Next, four possible reading frequency scales were devised: a verbally-expressed 'time scale' worded in the case of monthly magazines, for example "I see the . . . every month/most months/every few months/once or twice a year/never"; a numerical scale "In the last four

months I have seen this number of separate copies 4/3/ 2/1/0"; (again taking the monthlies' example); a Stapel-type 'abstract' scale with nine boxes, anchored at "every copy" and "never see it"; and a purely verbal scale, common to all publication groups; "In the last few months I have seen nearly every copy/most copies/a copy now and then/hardly ever seen it/not seen it".

Each of these scales was applied to 44 NRS publications on quota samples of approximately 100 respondents. Detailed probing followed on reading behaviour in respect of one daily, Sunday, weekly or monthly. Finally, informants claiming to have read at least one copy in the last six months or so were questioned on their last reading occasion. At the analysis stage, the frequency scale position allocated to a respondent in respect of one of the titles for which reading behaviour had been probed in depth was categorised as "very likely to be correct", "fairly likely", "fairly unlikely" or "very unlikely".

On the basis of this preliminary assessment, only the verbal scale was rejected as not very promising. Both the numerical and 'time' scales appeared to offer good prospects for further development; the latter did not perform particulary well for monthlies – which publication group provided, as is generally the case, the greatest difficulties. Finally, it was decided that, in the light of all experience to date, the numerical scale offered the best hope and it was added to the NRS questionnaire from 1 May 1965, with slight modification of the form used in the experimental research; a "less than one" point was added between "1" and "0" for the scales applying to dailies and weeklies/Sundays and the questioning for monthlies was altered so as to refer to six months rather than four, with seven scale points replacing the original five.

The numerical reading frequency scale was subjected to a calibration study in June 1965, in the third phase of this particular set of projects. It was administered, for 29 publications, to a quota sample of approximately 2,000 informants, whose actual reading probability was subsequently assessed for any two out of a pre-set list of four titles. Four issues of each of these two titles were shown and the previous readership of these issues measured using a TTB technique; the test issues' ages (in publication intervals) were 1, 2, 3 and 4 for the *Daily Express* and *The People* (a Sunday newspaper); 3, 4, 5 and 6 for *Woman* (a weekly); and 1, 2, 3 and 4 for *Reader's Digest.*

The results showed a broad measure of agreement between the respondents' claimed reading frequency, as expressed by the scale position chosen by them, and their actual frequency, as measured by the proportion of the test issues which they claimed to have seen before – but with the now familiar tendency towards apparent

exaggeration in frequency claims, a problem which was ". . . particularly marked in the case of the *Reader's Digest*" as Corlett and Osborne note. "Sixty-seven observations were made of respondents choosing the '3' (or .50 probability) position in respect of this magazine. Of these people, no less than 40% had seen none of the four issues shown. A further 33% had seen only one." (*14*). Issue age may here have been a factor – it had been planned to use older ones, but adequate numbers of copies could not be obtained.

Having completed our account of reading frequency scale development, it is desirable to turn aside for a moment to examine the administration and financing of the NRS, which are relevant to a change of emphasis in the next stage of experimental research and to the events which followed.

Reference has already been made at several points to the IPA's NRS Controlling Committee which, since the institution of regular surveys in the mid-50s, had been responsible for National Readership Survey policy. This Committee drew its membership solely from IPA-recognised advertising agencies. The Controlling Committee was advised on day-to-day matters by its Technical sub-Committee – on which representatives of the media owners sat, as well as agency researchers. The NRS was largely funded by the publishers who, although faced year-by-year with a request from the IPA for a certain sum, only had an indirect voice in policy matters, via an Advisory Committee of Contributors.

This structure may be seen reflected in the fact that *all* developmental research so far described in this paper had been instigated by the IPA (although very full acknowledgement is to be made of the initiative and technical input of the two research companies responsible for the conduct of the Survey: Research Services Ltd (RSL) in 1956-59 and BMRB from 1960 to 1967). This pattern was now to change, since the next phase of developmental work, commencing in 1966, was initiated by the Newspaper Publishers Association (NPA), acting through the Press Communications Research Committee (PCRC).

The objective of the NPA-sponsored research was ". . . to examine how the industry could be provided with a better description of 'readers'. The introduction of frequency of reading questions had provided information on one dimension. But apart from knowing their frequency of reading, all readers were equal. Thus, the brief was to assess the possibility of improving the media information supplied to buyers of print-media by providing some measure of the amount of reading carried out by a 'reader'". (*15*)

Given the overall constraint of a measure applicable to many publications covered in a large scale survey, and thus capable of incorporation into the NRS, two preliminary studies were first carried out.

In September–October 1966, seven group discussions were held together with five individual interviews in which informants were interrupted during their reading of a publication. The aim was to elicit a pool of phrases descriptive of intensity of reading, in the reader's own words; 27 such phrases were obtained which appeared to merit further examination.

In parallel with the above work, the ability of the general public to report their degree of previous exposure to an issue was investigated. Two techniques were employed. Eleven informants were filmed as they selected and read publications in a 'waiting room' situation; spread checks were subsequently carried out with the same respondents, covering six weekly publications. The correlation between the 'objective' and recall measures was reasonably high; the errors tended to occur at the higher levels of intensity and to involve under-claims rather than over-estimation of spread exposure. The second technique involved glue-spot checks of claimed page openings of newspapers in an in-home reading situation; 37 informants were re-interviewed on the day following the placement of the specially prepared test issues and 233 spreads were covered. The level of error was of the order of 25% and again mainly involved under-claims of page openings.

The next stage of research involved 64 personal interviews completed in January, 1967. Informants were shown a scale running from "None of the pages"/"At least one page out of ten" up to "At least nine pages out of ten"/"All of the pages" and asked to rate each of the 27 phrases derived from the first, qualitative project against this scale in terms of the intensity of reading it implied. The results yielded eight phrases appearing to be least ambiguous to informants. In the second part of the interview, the 15 possible pairs of six of the phrases were presented on cards to informants, who were requested to ". . . tell me which of the two phrases implies that a person has seen more pages of a publication than one other phrase". The paired comparison data was analysed to produce an implied intensity of reading ranking of the six phrases.

At this point, attention was focused on investigating which phrase might best serve as a future 'hurdle' measure, to categorise people as having some low, minimum level of exposure to a publication and thus be counted as 'readers'; and what form of scale might be most appropriate for measuring the intensity of exposure of those people counted into the audience on the basis of the 'hurdle' measure.

140 further interviews were conducted in February 1967. The questionnaire aimed, first, to test potential 'hurdle' questions and intensity of reading scales. The former comprised six phrases employed in the previous phrase of research, including 'looked at', as used in the

NRS questionnaire at the time. As regards the scales, the earlier qualitative work had provided indications of the type that might be of value, but potential measures had, basically, to be created on judgement and tested for validity and efficiency.

Five scales were therefore devised: a 'picture' scale with six illustrations of a publication, each with a different proportion of pages shaded; a 7-point abstract scale, anchored at "I didn't see any" and "saw all pages"; a 'time spent reading' scale, ranging from "none" to "over 60 minutes"; a 'pages out of ten' scale; and a 'proportions' scale, showing ranges of the proportion of the issue seen, for example "¼ up to ½".

The interviews employed recent copies of four publications the informant claimed to have "read, seen, looked at or even just come across", drawn from a set of nine carried by the interviewer, supplemented, where necessary, by respondents' own copies. Spread exposure checks were completed on these issues, after the questions relating to the 'hurdle' measures and scales.

Cross analysis of scale claims and spread check data showed three of the measures to perform reasonably well in terms of the correlations obtained: the 'picture', 'pages out of ten' and 'proportions' scales. However, the overall conclusion was that the picture scale ". . . appeared most suitable for development. It was the easiest to understand for the informants, and it appeared to have better discrimination at the lower end of the scale" (16).

As regards the potential 'hurdle' measures, it was concluded that "Although 'read part of' had marginally better stability than 'looked at', the difference was not great enough to warrant the loss of continuity that a change would create. However, as a section of the population appeared to interpret 'looked at' as implying only marginal exposure, it was felt that the strengthening of the term by changing it to 'read or looked at' should be made". (17)

The final phase of this programme of research tackled the problem of incorporating the new intensity of reading measure into the NRS.

In 1967 the readership section of the interview was already lengthy. It involved a preliminary "read in the last three months" question on 83 titles, which served purely as a filter and from which the data was not tabulated; questioning on "when last looked at" for approximately 20 titles which, on average, passed the filter question; and then collecting reading frequency data for 38 titles.

Given a potential problem of interview overload with the addition of reading intensity questioning, the solution proposed was to drop the three-month filter question and to ask about reading frequency first, for all titles; the frequency question could thus provide data in its own right and also act as a filter, if respondents claim-

ing zero frequency were not questioned further in relation to the title in question.

A large-scale pilot of this reformulation of the interview was undertaken in May 1967, on a random sample of 672 adults, under the joint auspices of the NPA and the IPA. The new picture scale was incorporated and two alternative positionings of this question were tested on a split sample basis: in one half of the interviews, the average issue readership question was asked for all publications for which non-zero frequency of reading had been claimed and intensity of reading was then measured for each title read or looked at in the relevant period; in the other sub-set of interviews, the two questions were asked in turn for each publication with non-zero reading frequency.

The results of this pilot were encouraging. The restructuring of the interview did not appear to have any major effect on average issue readership levels or reading frequency claims, when comparisons were drawn with NRS results for January–December 1966. The picture scale performed successfully ". . . in so far as it produced exposure profiles of average issue readership which were both consistent and meaningful. It did however tend to produce distributions which were somewhat skewed towards the higher intensity end of the scale". (18) Intensity levels were also higher when the picture scale was applied after the 'when last looked at' question had been asked for all titles.

The new survey design, with the reading frequency questions asked first and reading intensity measured last, was applied full-scale in 1968. In an attempt to render the intensity measure more sensitive, the shading of the pages in the scale's pictures was amended somewhat, so that a less skewed distribution of responses would, it was hoped, be achieved.

This same year saw two other major changes: from 1968, the NRS sample size was increased from 16,000 to 30,000, not only to allow analysis of smaller sub-groups but with a view to more frequent release of data, based on shorter fieldwork periods than previously practicable.

The 1968 Survey was also the first to be produced under the auspices of JICNARS, which came into being at the beginning of that year and took over the control previously exercised by the IPA. It is a tri-partite body, representing advertisers (via the Incorporated Society of British Advertisers, ISBA), agencies (via the IPA) and publishers (via the Newspaper and Periodical Contributors Committee). JICNARS has an independent Chairman – a position occupied since its creation by Mr H I Holker (previously of Mirror Group Newspapers Ltd) – a permanent Secretariat and a Technical Consultant. There are, at present, standing Finance and Technical sub-Committees, both representative of the three groups within the industry mentioned earlier; a number of other

ad hoc sub-Committees, Working Parties and Study Groups have existed from time to time, mostly reporting to the Technical sub-Committee, which was first chaired by the late Mr L W Desbrow (then of Garland-Compton Ltd), who has been succeeded by Mr J I Burton, Birds Eye Foods Ltd.

THE JICNARS PERIOD, 1968 TO DATE

We concluded the historical account of developmental work up to the formation of JICNARS, covered in the last section of this paper, with reference to the piloting of the 'new' questionnare in 1967. Despite the findings of this pilot, some quite material differences were encountered between the 1968 Survey's results and those for 1967, principally in relation to regional variations (which we shall not discuss) and the levels for monthlies, which showed increases. The conclusion drawn from an extensive examination of 1967/68 differences was that the increase in monthlies' readership levels was ". . . due principally to the improved questionnaire and interviewing procedure and particularly to be a consequence of the new filter question which includes reading frequency and refers to "usual behaviour" rather than to readership in the three months preceding the interview." (*19*)

We now revert to the question of intensity of reading and to further work on the picture scale.

In November, 1968, an approach to 'calibrating' the scale was successfully piloted; it involved use of a postal survey and a self-administered check of spread exposure.

This technique was applied on a larger scale in April–June 1969. NRS informants were sampled and mailed one copy of three publications (from different groups) in respect of which they had previously made a reading intensity claim and asked to mark those pages which they recalled having read or looked at before; the analysis base comprised approximately 100 respondents for each of the scale's positions 'B' to 'F', position 'A' being the (nominally) zero-intensity one.

The results confirmed that the scale, did indeed discriminate on the criterion of (claimed) page contact, but to a limited degree – and with major variation, across publication groups, in the intensity of reading implied by a given scale position. After re-grouping publications on the grounds of similarity of their data patterns, it was necessary to collapse the scale to three or four points if statistically significant differences between the mean proportions of spreads seen were to be obtained.

A subsidiary experiment, which involved an informant checking three different issues of the same publication, showed suspiciously low between-issue variation in claimed spread contact, possibly due to the correlation of regular issue readership (a necessary characteristic of the respondents involved) with consistent within-issue intensity of reading.

Data from the picture scale was never, in fact, included in the published NRS reports although it was, after some delay, released in punched card form; however, in reporting on the experimental work just described, the comment was made that ". . . JICNARS does not at present endorse the reading intensity data now made available, nor can it accord it the same status, for general application to media selection, as average-issue-readership or reading frequency information". (*20*)

Some further insight into the results of the picture scale calibration study was provided by a small-scale project instigated by JICNARS in 1971. The postal self-administered spread check technique was re-employed, using life-old issues of women's weekly magazines or a popular Sunday newspaper. Nineteen respondents whose picture scale claims and spread check scores were classified as 'deviant' were recontacted and subjected to extended interviews.

It was concluded from the results that the major reasons for the discrepancies were misunderstanding of what type of reading, looking at or scanning an issue was implied by the picture scale question in the main NRS interview; or similar misunderstanding, together with other forms of wrong recording, in the postal survey. "On the evidence available" the report comments "the latter" (ie postal survey errors) "is more serious than the former. Thus the evidence suggests that the Picture Scale, although by no means perfect, probably functions better than was indicated in the calibration report." (*21*)

Despite this comment, there was a considerable body of opinion at the time that the picture scale had not ended the search for a measure or measures predictive of 'quality' of issue contact and a further, major project aimed at this problem was instituted in 1971 by the then NRS Development Working Party.

The objective of the study was ". . . to assess the performance of a number of variables, each judged potentially capable of dividing readers into sub-groups differentiated on reading behaviour. The variables studied were to include the method by which copies of newspapers and magazines were acquired.

"For any particular variable, the sizes of the groups into which it divided all readers and the degree of differentiation in behaviour between them was to be estimated, thus measuring the utility of that particular variable. . . . The measures considered were to relate to readers' normal or usual behaviour and had to be capable of integration into the broad framework of the existing NRS." (*22*)

The method employed involved two contacts with a quota sample of 510 housewives.

The first interview employed a modified NRS ques-

tionnaire covering a reduced list of 43 publications. The 'when last read' question involved more or finer time intervals than usual and the picture scale was modified in the light of information obtained from the investigation of apparently discrepant responses, described earlier. This interview concluded with questions on place of reading, method of obtaining copies and on various other factors intended as possible predictors of reading behaviour; these questions were asked in relation to a maximum of 15 publications.

At the second interview, a special form of noting check was completed on issues of up to three titles which a respondent claimed to have seen before and to have finished reading: she was asked to classify each page as one she "saw and read something on", "saw but just glanced at" or "didn't see at all".

At the analysis stage, the independent variables comprised 15 possible predictors of within-issue reading behaviour: three derived from NRS questions, in their standard form or a modified one; nine new title-specific factors; and three new, general classifications, not asked about in relation to a particular newspaper or magazine. As dependent variables, there were scores assigned to each informant: page traffic, defined in terms of the proportion of pages "just glanced at" or on which something had been read; spread traffic, comprising the proportion of spreads where either one or both pages were so claimed: and reading traffic, defined as the proportion of pages on which, it was claimed, some item had been read. The analysis considered the independent variables both one by one and in combination, using a taxonomic approach.

The study thus yielded a very considerable volume of complex data, full consideration of which is beyond the scope of this paper, but which may be found in (22). However the final conclusion drawn was that, if any modification were to be made to the NRS questionnaire as regards the question(s) included to provide a predictor of page traffic, the best option would be the modified picture scale, collapsed to two points only and interlaced with 'provenance'. This latter 14-fold classification derived from questions on how copies were obtained; if they were delivered or bought, whether anyone else in the respondent's household read the publication; and if so, which person was most interested in the title. In combination, the collapsed picture scale and 'provenance' responses showed a material improvement in the proportion of page traffic variance they explained, compared with the full, modified picture scale alone.

Despite this encouraging result, the report also sounded a note of warning: "Although this combination of measures would be recommended on the grounds stated, it is to be recognised that 'provenance' . . . would be one of the most complex to administer full-scale,

comprising as it does two component questions . . . and leading to a large number of categories. Thus if, indeed, the 'provenance' questions were added, it might not be possible to satisfy continuing demands for other NRS extensions such as a longer publications list." (23)

In the event, the line of development represented by the Reader Categorisation Study came to an end shortly afterwards when, in February 1972, JICNARS decided to drop the picture scale. It is worth noting the reasoning, as reported in a NRS Bulletin. After considering the results of the Study, the Working Party concerned ". . . found itself obliged to make two alternative proposals to the Technical sub-Committee. If the Picture Scale was itself retained, it was considered that its use in combination with one or more of the alternative reading intensity measures tested would provide a small, but real, improvement in predicting chances of contact with the average page. If, however, no new measures were added - on the grounds of the limited discrimination offered by the picture scale, which had always been under criticism, and its questionable bearing on media-choice decisions in practice - then the Working Party could not see a logical case for retaining the original measure itself."

"After further discussion, it was the latter recommendation that went forward from the Technical sub-Committee: not to attempt any refinement of intensity measurement, but to drop the picture scale itself, in consideration of the high, average levels of page traffic found amongst average issue readers throughout the developmental research; the limited discrimination afforded by the scale on this criterion; the consequent judgement of a minimal effect on scheduling decisions; and the opinion that resources occupied by intensity data collection, processing and application could be better redeployed elsewhere." (24)

It is probably not too great an exaggeration to suggest that the dropping of the picture scale from the NRS questionnaire marked not only the end - at least for the time being of one particular line of development but a shift of emphasis away from the search for supplementary, 'qualifying' measures and towards, again, the innate, basic problems of the NRS' version of the RR technique.

The next two projects to be reported derive from Study Groups set up at the time to tackle particular problem areas, under the general umbrella of the Development Working Party.

One such problem area was audience measurement for irregularly published titles; the brief for the Study Group concerned recognised that any proposals it made for improvement of measurement techniques ". . . may well find application also to regularly but relatively less frequently published titles such as quarterlies, bi-monthlies and monthlies, particularly as regards contact

measurement amongst infrequent readers" (25).

A diagnostic study was undertaken in November 1973-January 1974, using *Drive*, a quarterly magazine, as the research vehicle. NRS informants who had claimed some reading frequency for the magazine were mailed a self-completion questionnaire illustrating the covers of the last four issues. Questioning related both to these issues and to habitual behaviour, allowing exploration in some depth of the apparent accuracy of the recent reading and frequency claims made at the initial NRS interview.

Whilst it is impracticable to report at adequate length the many fruitful hypotheses arising from the *Drive* study, some of the Study Group's main conclusions may be noted. In relation to reading frequency measurement, they concluded that "... time periods extending to a number of months are an unsatisfactory basis for establishment of reading behaviour. They are not avoidable however, unless a totally different survey design (ie issue-specific) is employed or unless the issue-readership objective is abandoned. The operational conclusion is that they should be avoided for frequency questions and kept as short and recent as possible for the AIR question". (26)

In relation to the RR estimation of average issue readership for infrequently-published titles, they suggested that "Either the period stated is extended in many informants' minds, or the number of issues read within it is over-estimated by them.

"The inflation of AIR, consequent upon this exaggeration whichever it is, has a chance of reduction (though not total avoidance) when the 'first read' concept is used rather than the 'last read' concept. The difference in the 'covers' AIR type measures shows that people do *differentiate* between first and last reading, even if the levels are inflated." (27)

The Study Group went on to make a number of specific recommendations for short-term modification of the NRS questionnaire, aimed at improving accuracy of response, particularly in the case of infrequently-published titles. Two of these recommendations were implemented in January, 1975: mention of frequency of publication on the masthead cards; and amendment of the frequency question wording, on the card, to "read or looked at", in conformity with the phrasing used in the questionnaire.

Another area subjected to special investigation in 1975/76 was that of the prompt aids used in the NRS interview. Here, the Study Group concerned experimented with two alternative techniques, tested by BMRB on a pilot scale. The first involved a sorting board, on which the respondent positioned masthead cards according to the claimed frequency of reading of each title. Some disadvantages were observed; the use of the

board lengthened the interview and the cards did not prove easy to handle. A second version was developed, in which the respondent's task was reversed: instead of locating masthead cards against a frequency scale on the board, informants were asked to position frequency cards alongside mastheads, displayed in groups. This approach appeared successful in reducing title confusion, by allowing all the publications in a given group to be viewed simultaneously and in permitting respondents to revise their initial frequency claims if they wished; however, it suffered the same logistic and timing problems as did the earlier version of the board.

The second technique involved a questionnaire showing reduced size reproductions of mastheads, arranged in groups; the respondent was asked to study the whole page before the interviewer recorded the frequency claim for each publication in turn, watched by the respondent. This approach appeared distinctly promising and to offer the advantages of the modified sorting board (in respect of reduced title confusion), without the board's limitations. In BMRB's opinion the 'display questionnaire' (as it later became to be known) was practicable, simple and quite acceptable to both interviewers and respondents; it appeared no slower than the then current NRS technique and, with improvements in layout and clarity, could prove quicker. Study Group proposals for a larger scale test of the display questionnaire were tabled, but were overtaken by events.

In 1977, the PCRC staged a seminar at Cumberland Lodge in Windsor Great Park, which venue gave its name to the last – and probably largest – development research project to be described in this paper.

This meeting was not prompted by any new discovery of weaknesses in the NRS data, but rather by a long-standing disquiet with the sensitivity of the Survey's findings to minor changes in technique and their undesirable dependence on such factors as the positioning of a title within the interview or a change in research contractor.

At the seminar, an attempt was made mentally to set aside the NRS as it stood and to design a readership measurement method which, while meeting the same data needs would, hopefully, provide better understanding of their tasks to both interviewer and interviewee; result in greater involvement of the respondent; and thereby yield more accurate and stable results. The desirability of lengthening the media list was also much in mind.

From the Cumberland Lodge delegates' deliberations emerged two experimental techniques: a card sorting method and the display questionnaire, based on the work on the Study Group described earlier. After considerable further development of these concepts, first by the PCRC and later by a Development Working Party of JICNARS' Technical sub-Committee, they were tested in

a three-stage programme which ran between November 1978 and April 1979. The details which follow are necessarily much condensed, but the Working Party's full report is available (28).

The first stage of the programme tested the display questionnaire and card-sorting techniques under highly artificial, 'laboratory' conditions; 11 of the 16 interviews were video-taped. The main conclusion reached was that each of the methods was feasible under these conditions and that the card-sorting technique was materially the slower. A number of detailed amendments to its procedure were subsequently made with the objective of reducing the time spent in coding.

The second phase of the Cumberland Lodge programme comprised a limited scale field trial of the two experimental methods, involving approximately 50 interviews for each one, under normal NRS conditions. No insuperable problems arose but, whilst the display questionnaire was generally liked by interviewers and raised few difficulties, the card-sorting method was seen to be much more difficult to handle than the then current NRS technique, especially in the manipulation of the sorting board employed and in the marking of the cards themselves (their reverse side being used to record the responses to the reading frequency and 'when last read' questions).

In the third stage, 400+ interviews were conducted, under 'hall-test' conditions, using each of the test methods and the standard NRS approach. The complex design of this part of the project also involved experimental manipulation of three other variables.

First, the card-sorting and display questionnaire sub-samples were split across two experimental frequency of reading scales: a four-point, verbal one and a six-point numeric scale – common, in both cases, to all publication groups, in contrast with current NRS practice.

Second, again for both experimental techniques, equal sub-samples were subjected to a 'mixed' grouping of general and women's titles, for both weekly and monthly magazines (although similar titles were kept together in all cases, to minimise confusion), and to the 'standard' grouping, which separates these sub-groups.

Third, the card-sorting and display questionnaire samples were divided between two publication groups' orders – dailies/Sundays/weeklies/monthlies and dailies/monthlies/weeklies/Sundays – as contrasted with the NRS' use of a full and balanced rotation of these four basic groups.

In addition, all interviews – whether employing one of the experimental methods or the current NRS technique – collected data on the recognition of the six most recent issues of certain newspapers and magazines (full TTB methodology was not, however, employed).

A final design feature was the inclusion of a large number of specialised, smaller magazines in both the card-sorting and display questionnaires, where they were treated differently from the main, 'core' publications. This aspect of the experiment will not be pursued further here, however.

From the wealth of detailed findings of the Cumberland Lodge hall test, it is possible only to highlight some few of the principal conclusions.

The card-sorting and display questionnaire methods provided average issue readership estimates that were substantially greater than those obtained concurrently in the field with the NRS, but rather lower than the levels yielded by the present method in the circumstances of the test. It was not possible to say whether the experimental methods were more or less sensitive to artificial test conditions than the present technique. On the evidence of their sensitivity to rotation effects and of the very limited readership data gathered in their earlier, small-scale trial in the field, it was concluded that they were likely to be more sensitive, rather than less. Consequently, under full-scale field conditions, both experimental methods would be likely to result in reduced AIR estimates, compared with the present NRS.

The display questionnaire appeared to provide a more stable relationship between issue recognition and RR claims than either the card sorting method or the present technique; but a crucial finding was that concordance between recognition claims and AIR data varied much more by *title* than by survey *method*.

Alternative versions of the frequency scale had no great effect on AIR levels. On the other hand, on the evidence of the issue recognition data, *all* the frequency scales tested had limitations.

Readership claims proved highly sensitive to variations in the groupings in which particular titles were placed. A woman's monthly shown to an informant within a group consisting only of women's titles obtained a higher level of readership claims by women – and a lower level of claims by men – than when it appeared among a group of titles appealing to both sexes.

The experimental methods proved more sensitive to rotation effects than was the existing technique. These rotation effects appeared to be highly variable by type of publication within broad publication category. Thus, among women's monthly magazines, the leading publications were little affected by rotation, but titles with unusually large numbers of readers per copy, with high male readership or with profiles skewed towards the lower social grades were severely affected.

Finally – and probably most importantly, among the Cumberland Lodge findings   informants who claimed zero reading frequency went on to claim recognition of one or more of the last six issues of the title concerned,

to a disturbing extent. This applied to all three methods, on the scale of a fifth to a third of all informants making positive frequency claims. For the card-sorting and display questionnaire methods, such underclaims were approximately offset by apparent overclaims, where the informant made a positive frequency claim but later stated she/he had seen none of the last six issues.

While the results suggested there was a rough overall balance between overclaims and underclaims, they also showed that this balance was not maintained for individual titles. In particular, the current NRS showed a 78% balance of *over*-claims for *Reader's Digest*, while the other three test titles showed a net balance of *under*-claims.

On the basis of these results, it was generally agreed that JICNARS would not be justified in fielding a full-scale trial of one or other of the experimental techniques. At the same time, the Cumberland Lodge data was not seen as labelling present NRS results as 'useless'; the research programme had set out to test ways of making a good survey better – and proved just how difficult that task was.

The Working Party continued its discussions and was of the opinion that further progress *could* be made – but at the price of slow, painstaking effort; of obtaining a far better understanding of the complex inter-relationship between the 'stimuli' provided by readership survey questions, readers' perceptions of their own behaviour, their inbuilt response patterns and the answers consequently recorded; and of setting up and carefully testing hypotheses, one by one, rather than believing – as had, perhaps, been too readily the case at the start of the Cumberland Lodge programme – that survey design improvements can be effected judgementally.

As a next stage – and the final one to be recorded in this historical account a 'ground clearing' report on NRS technique options was commissioned (*29*).

THE CURRENT NRS TECHNIQUE

The objective of this final section of the paper is to describe, in some detail, the technique currently employed by the National Readership Survey.

The prime focus is on readership data capture and its subsequent treatment. Other aspects of the Survey - sample design, for example, or non-readership sections of the questionnaire are therefore covered in somewhat less depth.

Throughout the following description, major changes that have been made to the Survey's design are indicated at the appropriate point.

The NRS' sample is designed to be representative of the adult population defined as those aged 15 years

and older – of Great Britain. (Prior to 1 January 1970, the cut-off age was 16. The population of the extreme north of Scotland was also excluded from the universe in earlier years.)

A two stage stratified, probability design is employed, involving the selection of polling districts (PDs) as Primary Sampling Units (PSUs) and, at the second stage, of individuals within PDs.

A sampling frame of all Wards in Great Britain is first created (Wards are subdivisions of parliamentary constituencies and are, in turn, divided into PDs). This frame is stratified, first into 39 geographical groupings, formed by interlacing non-overlapping portions of commercial television station areas, metropolitan/non-metropolitan counties and Registrar General's Planning Regions and, second within geographical region, by the ratio of evening newspaper circulation to number of households. Within each of the resultant strata, Wards are ordered by the ratio of the Labour vote at the most recent Local Government Election to the electorate. (The stratifiers used have varied over the years, particularly as regards the correlate(s) of socio-economic class employed.)

1,512 Wards are then selected with probability proportional to the size of the electorate as at the time of the most recent local government election, using a random start, fixed interval procedure. (Census data have previously been used, rather than electorates.)

Within each selected Ward, one PD is chosen, again with probability proportional to electorate. (The number of PSUs has varied. It will increase in 1981 to 1,728.)

Using a Latin square grid, the allocation of PSUs to fieldwork month, to the day of week on which an interviewer's six-day assignment starts and to masthead booklet is randomised.

Within each selected PD, 28.5 names, on average, are selected from the electoral register, again using a random start, fixed interval technique; such persons are termed 'starred electors'. (The cluster size has varied and will be reduced in 1981.)

All electors listed in the register at the address of a selected person are entered, in register order, on a sample issue sheet. The starred elector is asterisked. Using that name as a starting point and the number of electors as a 'sampling interval', further asterisks are marked on spare lines below the pre-listed names. In the field all other persons aged 15 and older at the address in question, not listed in the register, are entered on these lines, in descending order of age. Names entered opposite asterisks are eligible for interview.

A modification of the above procedure is employed at 'institutions' (hotels, hospitals, prisons, schools and the like) which are operationally defined as addresses with 20 or more electors.

The sampling design is self-weighting. (Prior to July

1974 this was not the case, a different procedure then being employed for the selection of informants not listed in the electoral register.) From 1968 to 1980, the target, unweighted, achieved sample was 30,000 — ie approximately 20 achieved interviews, in 1980, on average, from each of 1500+ PSUs. From 1981, this target will be 28,500+, but the *effective* sample will increase, rather than decrease, due to a reduction in Design Factor from increased dispersion.

Interviewers make at least four calls, where necessary, before abandoning an attempt to interview a named person. No substitution is allowed.

For the period January–December 1980, interviews were obtained with 74.7% of named persons, whether pre-listed or listed in the field. 0.4% of these questionnaires were rejected at the analysis stage.

We now turn to the structure of the interview itself.

Having introduced herself and the research company, the interviewer goes on to explain that the survey is about reading, watching television and so on; if sponsorship is queried, she is allowed to say that the NRS is conducted on behalf of the newspaper and magazine publishing industry — but not to mention advertising. She then comes immediately to the readership section of the questionnaire.

The respondent is handed a booklet containing black and white reproductions of the mastheads of the newspapers and magazines covered by the Survey. Each masthead card is 16.5 cm wide and 12.0 cm deep. It carries (a) a statement of the publication's frequency, eg "Published every Monday to Saturday", "Published every Sunday" or "Published every week"; (b) a facsimile of the logo, reduced to less than its full size (generally speaking), the degree of reduction varying somewhat from title to title; (c) a small number identifying the publication and the section of the booklet to which it belongs; and (d) a frequency scale, varying from publication group to publication group. For daily newspapers, the scale reads "In an average week these days I read or look at this number of issues 6/5/4/3/2/1/less than one/ none" (except in the case of titles published Monday–Friday only, where the top scale point is '5'); for Sunday newspapers and weekly magazines "in an average month I read or look at this number of issues 4/3/2/1/less than one/none; for monthly magazines "in the last six months I have read or looked at this number of separate issues 6/5/4/3/2/1/none"; and for bi-monthlies "in the last 12 months I have read or looked at this number of separate issues 6/5/4/3/2/1/none". The masthead cards are punched and ring-bound into their booklet.

The exact format of the masthead cards has varied in minor but important details over the years. As mentioned earlier, their listing of the titles' frequency of publication is a comparatively recent innovation. In the fre-

quency scale wording, 'these days' (for dailies) and 'separate' (for monthlies and bi-monthlies) are later additions to the phrasing. At various earlier times, quarterly and irregularly-published magazines have been covered using, respectively — a 12 month, four issue scale and a special, verbal one.

48 versions of the masthead booklet are currently in use, randomly assigned to PSUs, as noted. They comprise all possible permutations of the order of the four basic groups of daily newspapers, Sundays, weeklies and monthlies, providing 24 variations. In each of these orderings, the bi-monthlies appear last and there is one further, separately distinguished publication group, covering colour magazines published weekly as supplements to newspapers, which is always adjacent to the Sundays. For each of the 24 basic orderings of publication groups, there is then one booklet version with the titles, within groups, in the order in which they appear on the questionnaire and another employing the reverse of that order, making 48 variants in all.

There are also variations in the masthead booklets' content from area to area, to allow coverage of regionally circulating newspapers.

With the masthead booklet in the informant's hands, the interviewer then asks **Q1**: "I want you to go through this booklet with me, and tell me for each paper, roughly how many issues you have read or looked at recently – it doesn't matter where. As you look at each card, will you tell me which of the statements applies?"

As the Interviewer's Manual notes "Although the question is clear and straightforward it is possible for people to have various understandings of what is meant by 'read or looked at', and what reading situations you are wishing to know about. Testing has shown that three things need to be explained – 'read or looked at', 'any copy' and 'it doesn't matter where' . . . you must explain each *fully*". "Read or looked at", the Manual goes on to say, ". . . includes anything from looking at a few pages to reading it from cover to cover: it is not necessary that the informant should have actually read any part of it." "It doesn't matter where" implies that "the copy read or looked at doesn't have to be the informant's copy; it could be at a surgery, hairdresser, at work, at home, on a bus or anywhere." Finally, "any copy" means "it does not have to be a recent copy: if a person sees every copy of a monthly magazine, but always when the copy was three months old, he would still qualify as a regular reader."

These explanations – in the interviewer's own words and adapted to the needs of individual interviews and informants – are given *before* the respondent goes through the masthead booklet and his/her answers to **Q1** are recorded, title by title. The Manual stresses that the interviewer ". . . should make every effort to get the

informant to go through the booklet turning the pages himself. In exceptional cases this will not be possible and you should then read from the booklet as you turn the pages. If this occurs, a note explaining why such a procedure was necessary should be written on the questionnaire." Responses to **Q1** are only acceptable if expressed in the exact terms of the frequency scale. "NEVER accept 'all of them' or 'Every copy'", the Manual warns "the informant *must* select one of the points on the card. For dailies do not accept 'Every day on way to work' – the informant may not work on Saturdays. NEVER accept 'no' – the negative scale position is 'none'".

With **Q1** completed, the masthead booklet is taken back from the informant and put away. **Q2** is then asked for each title for which a reading frequency other than 'none' was claimed at **Q1**, publications being dealt with in the same order as for the earlier question, as dictated by the particular masthead booklet in use. **Q2** reads "I would now like to go through some of the publications again and ask you to say, for each one, when you last read or looked at a copy." Before the informant replies, the previous explanations of "read or looked at", "any copy" and "it doesn't matter where" are recapitulated.

The responses to **Q2** – which are of critical importance to the estimation of average issue readership – are coded by the interviewer: "Yesterday or Saturday" (the latter in the case of Monday interview)/"Longer ago" for daily newspapers; "Yesterday"/"Within last seven days (not yesterday)"/"Over seven days ago" for Sunday newspapers, colour supplements and weekly magazines; and "Yesterday"/"Within last four weeks (not yesterday)"/"over 4 weeks ago" for monthly magazines. Reading on the day of interview is discounted; if an informant mentions "today" she/he is asked "When did you last look at a copy of . . . . . . apart from today?"

Clearly, resolution of ambiguous answers at **Q2** is important, but directive prompting is to be avoided. The Manual reminds the interviewer that she ". . . must never mention the actual time period in which we are interested." The instructions in this section continue: "If an informant says she last read or looked at a copy of *Woman* 'about a week ago' this is an ambiguous answer and should be clarified. If interviewing on a Monday say 'Would that be before last Monday or was it after then?' . . . If the answer is ambiguous for a monthly you should mention the date four weeks previously and find out whether it was before or after that date. . . ."

The third and last question of the interview's readership section was added in April, 1977 for experimental purposes; the data derived from it are not generally available for NRS subscribers. It is not applied to daily newspapers, nor to Sunday newspapers and colour supplements if the interview is taken on a Monday. In all other cases, if the last reading occasion was 'Yesterday'

then, after completion of **Q2** for all relevant titles, the respondent is asked "You say you looked at . . . . . . yesterday. Was yesterday the first day you read or looked at this issue of . . . . . . ?" If the informant raises a query because she looked at more than one issue of the title in question she/he is asked "Was yesterday the first day you read or looked at any of these issues of . . . . . . ?"

The readership section completed, the interview turns to a large number of other media and non-media topics, which are only briefly listed here, in the order in which they occur; note that nearly all of these sections have been subject to addition, deletion or amendment of questions over the life of the NRS.

Cinema going is measured in terms of claimed frequency, 'when last' and the number of visits in the last four weeks.

Radio listening questions cover all BBC and IBA (ie commercial) channels. Previously, weight of listening was established in terms of claimed days per week and hours per day; from mid-1980, informants have been asked the numbers of times per week they listened within each of a set of time segments.

The television section covers the ITV (ie commercial) station generally viewed, weight of total viewing in terms of days per week and hours per day of any of Britain's three current channels and the claimed share of total viewing time allocated to the commercial channel.

The ownership of a range of consumer durables is measured, together with the age of each item. Questions on central heating, telephone ownership and finance follow – the latter covering possession of a cheque book, credit cards and stocks or shares.

Finally, an extensive classification section covers household composition, in considerable detail; education; responsibility for household duties; tenure and length of residence; occupation (for both the head-of-household and informant); and income.

We now turn from the structure of the interview to data treatment subsequent to the fieldwork stage.

After normal editing and coding, the data are weighted to correct population proportions within each of 84 cells, formed by interlacing sex, six age groups and seven geographical regions. Formerly, this reweighting was carried out for each three-month fieldwork period but, from 1980, it has been applied to each month's data. The range of weights for June, 1980 was from 2.18 (for women, 45–54 in London) to 0.68 (women, 65 and older, South East and Anglia).

Readership data only may be further adjusted in cases where a publication has suffered material loss of circulation. The procedure currently employed was introduced in 1975. A full description is beyond the scope of this paper but the technique essential involves changing the coding of certain randomly-selected informants, who

made a non-zero frequency claim at **Q1**, from 'non-reader' to 'reader', so that the average issue readership level in an 'adjustment period' (defined in terms of when a title was abnormally off-sale) conforms to that in a 13-week 'base period' preceding the loss of circulation. Constraints within the programme ensure that, as far as possible, the reading frequency profile of the adjusted audience is not unduly skewed. Fuller details of the procedure are published in Appendix 'D' to current NRS reports.

We conclude this paper with a brief description of the means by which NRS data are made available to the Survey's subscribers and a note on costs.

Three reports are currently published each year. The first two — which have identical contents — cover, respectively, the fieldwork periods from July one year to June the next and from January to December. They include tables of average issue readership (derived solely from **Q2**) for adults, heads of household/housewives, men, women and housewives, with demographic breakdowns common to all these groups and other cross-tabulations varying by group; readership profiles; broad data on commercial TV viewing, cinema going and commercial radio listening; reading frequency information, comprising readership profiles by responses to **Q1** and average issue contact probabilities (calculated in terms of the proportion of a sub-group making a given reading frequency claim who also last read the title concerned within the relevant period); and cumulative readership — estimated penetrations of two, three . . . 12 issues of each title, calculated by binomial expansion of the probabilities mentioned above.

The third report, based on January–December interviewing, reports average issue duplication of readership, for all possible pairs of titles, for adults, men, women and housewives.

Supplementary Reports are published from time to time on readership in the circulation areas of one or more regional newspapers; they are based on the combination of data from the main NRS sample and from additional interviews in the area(s) concerned.

The basic subscription to the above series of Reports was, in 1980, £250, with reductions for publishers contributing to the costs of the Survey, for IPA-recognised advertising agencies and for certain educational establishments.

NRS subscribers also receive other hard-copy information. Bulletins are circulated which contain details of Survey design changes, developmental research and data not regularly published; four times a year, four-quarter moving average readership trend data are appended to a Bulletin. Subscribers also receive, as a Bulletin appendix, top-line results in advance of each main Report's appearance. The results of major metho-

dological projects are also published from time to time; some few of these publications appear in this paper's references.

For special analysis purposes, NRS data may be accessed both on- and off-line via computer bureaux licenced by JICNARS for this purpose, which offer full suites of media programs. Any subscriber may also hire tapes, which are released quarterly, are in card-image format and any practicable combination of parity, tracks and density (the availability of duplicate punched cards was previously offered).

The most recently tabled budget shows total JICNARS expenditure in the period August 1980–July 1981 of approximately £370,000. The basic cost of the Survey itself for the calendar year 1980 was approximately £305,000.

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