

THE FREQUENCY SCALE - PROBLEMS AND PRIORITIES

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Introduction

The history of readership research started with the insight that circulation data, however accurately audited, is not enough. Of two publications with identical circulations and similar subject matter one may well have many more readers than the other or quite different kinds of readers. In this case one will be much more cost effective than the other as a medium for advertising. The buying and selling of space has to be based on reliable measurements of numbers and types of reader rather than on circulation data.

The next important insight in readership research was that two or more publications with the same numbers of readers and identical profiles may yet have very different distributions of readers over time. At one extreme a publication might have identically the same readers for every issue; at the other a small publication could conceivably have totally different sets of readers for each issue.

This distinction is not as far fetched as it sounds. Free local newspapers and magazines distributed only by subscription approximate to the first model, while publications like *Loot*, with a significant cover price but containing classified advertising only, have extremely high reader turnover.

The difference is of no importance to an advertiser who places an insertion in a single issue but it is crucial in planning any campaign. Multiple insertions in a publication of the first type will of course generate only multiple opportunities for the advertisement to be seen; cover stays equal to average issue readership. Additional insertions in a publication at the opposite extreme buy cover with no increase in numbers of OTS per reader.

The value that should be attributed to extra frequency as opposed to increased reach will vary from one campaign to another, but information on frequency distributions is clearly essential if campaigns are to be properly planned. Frequency data are consequently regarded as second in importance only to average issue readership data in readership research.

Virtually all national readership surveys and other readership studies include frequency questions, but there is no agreement at all on the types of scale that are used or other aspects of methodology from country to country. The object of this paper, then, is to consider the following fundamental questions about frequency scales and questions.

1. We can define quite precisely what we are attempting to measure in the case of average issue readership. Can we say precisely what we are attempting to represent with frequency data or are we satisfied with only a fuzzy definition?
2. Is it important that frequency scales should be harmonized from country to country? If so, is any form of scale to be preferred or does the choice of standard scale not matter?
3. A few countries use frequency questions rather than recency questions as the base of average issue readership estimates. Is this desirable or acceptable?

In order to answer these questions we consider three issues. They are the characteristics of the frequency scale used at present, the actual patterns of reading behaviour which the scales have to deal with and the ways in which the data are in fact used.

Types of Frequency Scale

We can classify the scales that are used all round the world in the following ways.

1. Number of scale points, ranging from four to twelve;
2. Latest or usual frequency e.g. 'How many issues of .. have you read or looked at in the past month?'; 'How many issues of .. do you read or look at in an average month?'
3. Time based or issue based e.g. 'How many issues of .. have you read or looked at in the past month?'; 'How many of the last 4 issues of .. have you read or look at?'

4. Numeric, verbal or qualified verbal e.g. 'How many of the last 12 issues have you read or looked at?'; 'Do you read .. regularly (all), very frequently (not all),... very seldom?'; 'Do you read .. almost always (at least 3 out of 4), ... only occasionally (less than 1 out of 4)'.
5. Universal scales, with the same wordings for all publication frequencies; variable scales with different wording for all or some different publications types.

A good frequency scale must meet two requirements. The first is that it should be easily usable by informants, given the patterns of reading behaviour that actually occur. The second is that the data which it generates will discriminate effectively when comparing publications and planning campaigns. We start by considering actual patterns of reading behaviour.

Patterns of Reading Behaviour

So long as somebody's behaviour remains stable over time there should be no particular problem in measuring and recording its frequency. For readership research the difficulties arise from the three following patterns of unstable behaviour.

1. Irregular readers. People who do not read all or almost all issues of a given publication are much more likely to read it irregularly than in some systematic pattern.

Suppose, for example, an informant has in fact read one issue of a monthly three months ago, none in the previous four months and five in the five months before that.

The informant can only describe this pattern in terms of frequency if he or she is given clues. A base period has to be defined - in this example frequency is 1/6, or occasional, on a six month base but 6/12 on a twelve month base. The questions must also clarify whether frequency is to relate to the base period and how it is to be calculated. Equally the designer must know what data he is trying to collect if he is to interpret the answers properly.

2. Lapsed readers. In reality people often do not know whether they are lapsed or irregular readers of a given title until long after the last reading event has taken place. A lapsed reader must understand whether reading which lapsed a certain time ago is eligible or not and how frequency of reading that title is to be expressed. Without help an informant might reply in terms of pre-lapse behaviour, current behaviour, or behaviour averaged over the whole base period. The three answers will be totally different.
3. Deferred readers. A further complication arises where first reading events have been taking place when issues were already quite old. The designer has to decide whether old copies should be included in reported frequency and frame the questions accordingly.

While most of the readership of leading titles is accounted for by regular readers, the majority of people who ever read titles are irregular and occasional readers. The problems discussed relate to a very high proportion of all informants so they must be seriously addressed.

What are we trying to represent?

The purpose of frequency scales is to provide a means of representing the future distribution of reading events. The underlying hypothesis is that the future distribution of events over time for a given publication will be the same as its past distribution. Another way of putting this point is that future projected reading probabilities will be the same as observed past reading probabilities.

It follows that the base periods on which probabilities are calculated, or the periods over which past distributions are described, should be the same as those for which future projections are required. We suggest that this period is best set at a year.

For bi-monthly and quarterly magazines it makes little sense to choose a base period of less than a year since the number of issues concerned would be too few to form a scale. Furthermore schedules for these long interval publications will normally be set for complete years at a time.

For magazines published at shorter intervals, especially weeklies, a shorter base period could be used, but since campaigns using mixed interval publications and extending over a year will occur the best solution is surely if a base period of a year is used for every publication.

The point is that reader turnover has two main components. The first represents the reading irregularity of current readers. For example if a hypothetical publication has 33 readers who read all issues and 67 who always read alternate issues, cover would maximise after two issues and thereafter remain constant at 100.

This ignores the second component which is the entry of new readers in place of lapsed readers. This factor may be small from issue to issue but will always be quite large from one year to the next. Reader drop-out means that cover will always increase indefinitely if slowly. For example, the cover of four consecutive issues is always somewhat less, and may be substantially less, than the cover from four issues taken at quarterly intervals.

To meet the need for calculations of cover with both of these types of schedule, i.e. to distinguish between schedules of consecutive issues and schedules using issues at longer intervals, it is necessary to observe frequency on a long base period, such as a year.

Note. At any time some real publications are expanding and others are in decline. This does not invalidate the concepts; users can always introduce a factor in the model to represent expected future change.

Characteristics of a Practical Scale

As discussed above frequency has two components, a base period and a scale. Our view is that it is the base period which should be treated as the primary data, with the scale being constrained to it, rather than the other way round.

We explain these two approaches further. With a primary base period the widest audience is defined as all those who claim to have read or looked at a given publication within a named period (such as a year). Then all those who do not claim readership in the past year are assigned zero reading probabilities. All those who do claim readership in the past year are assigned non-zero reading frequencies.

Conversely if the frequency scale is primary then the widest audience is all those who claim a non-zero frequency, without the base period being defined. The consequence is that the implied base period can vary widely from informant to informant or from title to title. Thus if the lowest point on the frequency scale were, say, one in four, only weekly titles which had generated reading events in the last six or eight weeks would be likely to be eligible. However, if there were a scale position of less than one out of six, claims for bi-monthlies and quarterlies might relate to last reading events that took place two or three years earlier.

A fixed base period is surely preferable. It also gives scope to word the frequency scale in ways that informants find sympathetic even though they are not strictly logical.

Consider first these ways of asking frequency questions which do fit logically with a base period of a year (or any other specified base period):

- How many issues of .. have you read or looked at in the past year?
- Over the past year how many issues of .. have you read or looked at in the average week/month/6 months?
- How many issues out of N have you read or looked at on average over the past year?
- Which of the following best describes how frequently you have read or looked at .. during the past year (verbal scales)?

The practical problem with these questions is that many informants may answer a different question from the one they are asked. Thus lapsed regular readers of a daily may want to say that they do not read it currently rather than that their reading averaged out at half of all copies over the year.

However informants will have much less difficulty in answering questions put in the continuous present tense, such as:

- How many issues of .. do you read or look at in the average week/month/6 months these days?
- Out of every N issues of .. how many do you read or look at on average?
- Which of the following best describes how frequently you read or look at .. (verbal scales)?

Any lapsed informant who has claimed readership in the past year will have no difficulty in choosing an open-ended lowest position on the frequency scale, such as 'occasionally' or 'less than one in N'. It is appropriate that they should be in this cell since they cannot generate AIR claims; they will therefore help to ensure that the lowest cell on the scale generates a low reading probability, which is what we require from such informants.

The real point is that, once a base period has been set and informants have all been filtered on it, the details of the frequency scale and its answers are of limited importance in discriminating between publications. The most important factor in distinguishing between publications with high and low rates of audience build-up is their ratio of average issue readers to widest audience. Beyond this any sensible frequency scale will work more or less equally well for most informants so long as the lowest cell succeeds in selecting informants with genuinely low reading probabilities.

We may conclude that the exact form of the frequency scale is not crucial. What is more important is that the scale can be used without generating anxiety. In the UK we think this is best achieved with a short verbal scale, with numeric guidance for those who want it, but this does not necessarily mean that this is the right answer for other cultures and traditions.

Average Issue Readership from the Frequency Scale

At the time of the San Francisco conference only two countries, Sweden and Switzerland, used the frequency scale as the source of average issue readership estimates. The attraction of this approach is evidently that it saves time; frequency questions are potentially a source of both AIR and frequency while recency questions are only a potential source of AIR and corrections to frequency data.

While recency questions are not a perfect source of AIR data for all publications, they are a consistently good source of AIR for daily newspapers. The following table compares standard recency based AIR estimates with the estimates obtained by taking the six point frequency scale at face value i.e. by assuming that a claimed frequency of five issues out of six corresponds to a reading probability of 0.83.

Exhibit 1

Average Issue Readership of National Newspapers, UK, 1983

Category	a. Recency based	b. Frequency based	(b)/(a)
Popular (4)	68.3%	75.5%	1.105
Mid-Market (2)	24.8%	27.9%	1.125
Quality (4)	15.0%	18.0%	1.200
All (10)	108.1%	121.4%	1.123

Base: 28915 adults aged 15+, JICNARS NRS 1983

It is to be expected that frequency claims should be exaggerated relative to recency claims at the top end of the scale. Someone who has a newspaper delivered home daily will naturally describe his frequency as six copies out of six. However, since circumstances will prevent him from reading at least the occasional copy, his real reading probability must be slightly or materially less than the maximum.

Of much greater practical importance is the fact that the three different categories of national newspaper obtain divergent AIR estimates by the two methods. The explanation is simply that the distribution of readership of quality newspapers is different, with a higher proportion of irregular readers. The frequency method does not succeed in picking up this difference correctly.

If the frequency method does not succeed in measuring AIR consistently between newspapers with different patterns of distribution it is most unlikely that it can work well for magazines where differences in distribution are very much greater.

Conclusions

The fundamental point about measuring frequency, with respect to reading newspapers and magazines and many other kinds of activity, is that real behaviour is often highly irregular. In such cases it is not possible for people to summarize their behaviour consistently on a simple frequency scale. They must have guidance on the base period they should use - without this guidance different individuals will classify a given sequence of events quite differently.

When once the need to express frequency in terms of some base period is accepted this base period becomes the most important element of frequency measurement. There are strong arguments for a single base period for all types of publication. The base period must then be a long one - a year is the obvious candidate.

With a fixed base period fixed the details of the frequency scale become less important. I should argue for a short and standard verbal scale with numeric support on the grounds of ease of use, but I should not regard the harmonization of frequency scales internationally as a high priority.

Lastly, the poor performance of frequency scales as a measure of AIR for daily newspapers does not suggest that it is a good solution for magazines.

