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4.4 A comparison of verbal and numerical frequency scales

INTRODUCTION

In 1970 the ISPI Technical Committee, feeling the verbal frequency scale was inadequate (especially for media planning, but also of doubtful interpretation) decided to consider switching to a numerical scale (similar to the German one) regarding the reading of the last 12 issues.

Before switching to the numerical scale it was decided to include in the 1971 Magazine Readership Survey both scales:

Q 2.2 verbal scale on current reading behaviour: regularly, fairly often, seldom, never.

Q 2.4 numerical scale: how many of the last 12 issues (appeared during the last three months) were read or leafed through.

RESULTS OF COMPARISON

Table 1 is based on 5759 interviews and gives a cross-tabulation of the two questions for eight of the 24 weeklies considered in the survey.

First we looked for consistency and coherence between the verbal frequency claims (based on current behaviour) and the number of issues claimed to have been actually read out of the last 12. At the outset we considered as 'correct' statements those of readers who: state 'regularly' and read 11–12 issues out of 12; state 'fairly often' and read 5–10 issues out of 12; state 'seldom' and read 0–4 issues out of 12.

The composition of 'correct' statements is shown in **Table 2** for some of the magazines (C = Correct; O = Other).

TABLE 1
Analysis of verbal frequency statement by numerical scale*
(total eight weeklies)

		Verbal scale		
	Total %	Regularly %	Fairly often %	Seldom %
Numerical scale				
0 out of 12 issues	1.1	1.1	1.0	1.0
1 out of 12 issues	5.8	0.1	2.4	12.9
2 out of 12 issues	11.7	0.9	6.5	24.3
3 out of 12 issues	13.4	1.7	10.8	24.4
4 out of 12 issues	11.3	1.8	12.6	16.9
5 out of 12 issues	8.5	1.6	12.8	8.1
6 out of 12 issues	7.6	1.7	15.0	5.1
7 out of 12 issues	4.4	1.4	8.9	2.4
8 out of 12 issues	5.0	2.1	11.0	1.6
9 out of 12 issues	2.6	2.1	5.1	0.7
10 out of 12 issues	4.9	6.9	7.6	1.0
11 out of 12 issues	1.9	5.0	1.3	0.2
12 out of 12 issues	22.3	73.6	5.0	1.3
	100.0	100.0	100.0	100.0
Number of responses	(9972)	(2705)	(3451)	(3771)

* See also **Table 3** for the absolute number of respondents in each group.

TABLE 2

	Number of cases	Total C %	Total O %	Regularly C %	Regularly O %	Fairly often C %	Fairly often O %	Seldom C %	Seldom O %
Weeklies									
Amica	(1596)	79	21	70	30	54	46	91	9
Annabella	(1759)	81	19	67	33	55	45	93	7
Domenica del Corriere	(2616)	81	19	79	21	55	45	91	9
Epoca	(1885)	81	19	65	35	53	47	93	7
Famiglia Cristiana	(2790)	79	21	84	16	56	44	87	13
Gente	(1721)	79	21	67	33	55	45	91	9
Grand Hotel	(1601)	81	19	80	20	53	47	91	9
Grazia	(1650)	81	19	74	26	54	46	93	7
Monthlies									
Reader's Digest	(1466)	80	20	76	24	53	47	89	11
Quattroruote	(1187)	81	19	76	24	62	38	89	11

'Correct' statements vary by magazine: in fact among readers who would have been classified in a certain frequency category according to the verbal scale, we found that, using the definitions mentioned above, coherence was highest (87–93%) for occasional readers of all magazines, with a rather narrow range of variations; the middle category, with the lowest coherence levels, showed little variations among magazines (53% to 56%).

The most affected frequency claim was the 'regular' category where variations among magazines was greater, ranging from 65% for *Epoca* to 84% for *Famiglia Cristiana*.

Understanding the discrepancies

An analysis was also conducted on 168 questionnaires by tabulating the number of issues read against the verbal scale statement, given by each respondent for different magazines. The verbal scale didn't show a uniform pattern of interpretation *within each respondent*, but varied also from magazine to magazine: that is, for magazines read with the same *numerical* frequency, the respondent had given different verbal frequency statements.

In order to understand the reasons for the 'incorrect statements', in the Autumn Wave (September 1971), an experiment was conducted by instructing the interviewers to administer, *at the end of the interview*, a 'probe' question to *one* respondent who during the interview had given at least one 'incorrect' frequency statement.

About 200 'probes' were thus obtained and the correspondences that emerged are shown in **Figure 1**.

FIGURE 1

(a) low interest or low prestige of the publication.	Seldom and 11/12.
(b) favourable attitude or prestige factor.	Regularly and 2/12.
(c) readers who alternate each week between 'equivalent' weeklies.	Magazine A = regularly and 4/12; Magazine B = regularly and 4/12; Magazine C = regularly and 4/12.
(d) readers of copies bought regularly by *other* member of household (mainly TV Week and Radiocorriere but also the family magazine Domenica del Corriere).	Regularly and 3/12; Seldom and 11/12.
(e) readers of copies found at home but not meant for the respondent (eg women's weeklies in the case of men; male weeklies in the case of women).	Regularly and 4/12.

4.4 A comparison of verbal and numerical frequency scales

A quick look at the 12-point scale

It is a well-known phenomenon with numeric scales that some positions tend to be chosen more often than others.

The fact that we had the frequency statements both on the verbal and the numeric scale offered the opportunity to look at the individual points not just for the total answers obtained but within each verbal frequency claim.

In fact if we look at the trends within the claimed verbal frequency (keeping in mind the lower number of answers one would expect for certain positions within the claimed verbal frequency), the statements appear to be distributed fairly evenly among the various points of the scale (see **Table 3**).

There seems perhaps to be a slight 'point' effect for seven and 11 in the 'regular' category, more marked for 11 in the 'fairly often' category and the 'seldom' one. However, this aspect was not pursued further in the analysis.

The action taken

The data showed that the coherence of the statements between the two scales was high for occasional readers and sufficiently high for regular readers, but there was a rather 'shady' area for the intermediate group of frequency statements.

The advantage offered by the numerical scale regarding ease of calculating the cumulated readership overrode the possible disadvantage of lack of comparability with previous surveys, and the decision was taken to adopt the numerical scale for the future.

There was also the feeling (perhaps because researchers tend to be 'numerate') that the numerical scale (with all its possible drawbacks) increased the ability of respondents to give a more objective answer than on a verbal scale where the interpretation of the wording of the middle position ('fairly often') depended on the attitudes and personality of the respondent.

The numerical scale was, in any case, collapsed for the analysis (and in the tape supplied to media planners) into three frequencies only, different from the ones considered at the 'coherence' stage, and these were labelled: high frequency (9–12 out of 12); medium frequency (4–8 out of 12); low frequency (1–3 out of 12).

TABLE 3
1971 ISPI – comparison of verbal and numerical frequency statements (total 8 weeklies)

Number of responses

	Total responses	Regularly	Fairly often	Seldom
			Verbal scale	
Numerical scale				
0 out of 12 issues	107	31	37	39
1 out of 12 issues	572	3	82	487
2 out of 12 issues	1164	25	224	915
3 out of 12 issues	1336	45	372	919
4 out of 12 issues	1125	50	436	639
5 out of 12 issues	790	43	443	304
6 out of 12 issues	756	46	517	193
7 out of 12 issues	435	37	306	92
8 out of 12 issues	496	57	379	60
9 out of 12 issues	261	57	178	26
10 out of 12 issues	486	186	261	39
11 out of 12 issues	187	134	45	8
12 out of 12 issues	2213	1992	171	50
Number of responses	(9972)	(2705)	(3451)	(3771)

– – groups used in the preliminary analysis of coherence; ——— final 'collapsed' groups used for attribution of frequency 'labels' to respondents.

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TABLE 4
Frequency of reading (total adults)

	High (9–12)	Middle (4–8)	Low (1–3)
7 women's weeklies	.722	.266	.112
10 family and news magazines	.758	.299	.125
3 radio and TV weeklies	.809	.326	.151
5 gossip and popular	.781	.297	.121
6 youngsters and comic weeklies	.732	.332	.147
Average of 33 weeklies	.756	.304	.131
Average of 30 monthlies	.790	.402	.180

The meaning of frequency statements

The tabulations in the volumes also contain what are known in Italy as 'B/A ratios' for each magazine.

These ratios represent the probability of a reader in the last 12 issues (ie in the last three months for weeklies, 12 months for monthlies) being a reader in the 'last period'.

In other words, in Italy the 'guideline' from which frequency statements derive their values is the statement of 'reading in the last interval' (recent reading).

The B/A ratios are given for *each magazine* separately by high/medium/low frequency (ie the condensed groups mentioned above) and by men/women within frequency.

The mean average values calculated on the total adult readers, in 1979 showed the variations by category of publication given in **Table 4**.

In media planning practice, the B/A ratios can be calculated from the tape using the collapsed groups, specifically for each target group (that is, taking into account not only sex but also age, area, town size, etc).