## 5.5

## INTRODUCTION

Over a number of years many users of the official AMPS surveys in South Africa have expressed doubts about the high Readers Per Copy (RPC) that are reported for a number of publications. These complaints reached a crescendo in 1984 and the South African Advertising Research Foundation decided to undertake a number of studies to check on this aspect.

In the first half of 1985 three surveys were undertaken to provide background to the problem and to establish which of three interviewing methods provided the 'best' results.

In this paper I have made use of some of the data from the SAARF surveys and I have supplemented them with other research that has been undertaken. All this has been put together with a fair amount of discussion, conjecture and logic to establish whether the high RPC recorded in some cases are feasible or possible and finally whether visual verification of reading claims is a practical proposition to try to verify RPC.

## THE BASIC THINKING BEHIND THE APPROACH

The basic thinking behind the approach can best be described what Michael Brown and I have called the 'Biographical approach'. This consists of the tracking of a specific copy of a publication from its 'birth' into the market until its 'death'.

Theoretically a single copy of a specific publication can keep on gaining additional readers until the actual copy of the publication is destroyed. There are cases on record of publications such as the National Geographic and the Reader's Digest still being read many years after their date of issue. In the 1982 SAARF study on age of copies in public places we

uncovered one copy of the Reader's Digest which was 28 years old. For obvious reasons publications with a long life and non-topical editorial have a better chance of gaining additional readers than publications with topical contents and a short life.

In the Through-the-Book method of readership measurement informants are shown a copy of a specific age and the readership of that publication is then based on the claimed readership of that specific issue up to that point in time. However in both the Recency and Frequency methods of audience measurement readership qualification is not dependent on the age of the issues.

Let us use the 'Copy Biogruphy' approach and check on the maximum life cycle of a copy.

## MAXIMUM LIFE CYCLE OF A COPY

Theoretically a copy can gain readers all the way along the various possible steps in its life cycle.

- (1) On the news-stand or in the book-shop
- (2) In its primary household
- (3) In a secondary household(4) In a tertiary household
- In a tertiary household(s)
- In a 'public place'. (5)

If we put the whole thing together we obtain a picture as shown in Figure 1.

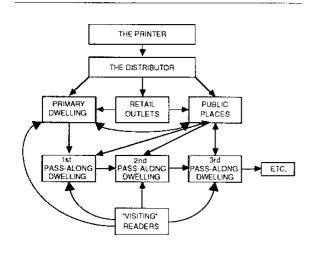
Our primary problem revolves around RPC. Let us examine how many readers a copy can in fact capture during a minimum, medium and maximum life cycle making use of the best data at our disposal.

## ON THE NEWS-STAND

In the test surveys referred to above we asked informants about the origin of the last copy they read, as well as

where they read it. For purposes of this paper news-stand reading has been included under the heading of public place reading.

FIGURE 1
The possible 'movement' cycle



#### IN THE PRIMARY HOUSEHOLD

The primary household consists of the household where informants claimed that they or a member of their household had bought (or subscribe to) the last copy that they read.

Based on two inventory analysis studies of publications in public places, one undertaken in 1982 and the second undertaken in 1985 we found very few current issues among the publications in the 'public places'. In the first survey it was less than 1% and in the second, more broadly based study, undertaken in February 1985 the figure was 3%. These findings mean that:

- (1) Nearly all copies of virtually all the magazines are initially entering the market-place through private dwellings.
- (2) The number of primary households into which the magazines enter cannot exceed the circulation of those magazines.

- (3) The number of claimed primary readers generated in the primary households cannot exceed the sum of:
- (a) the number of adults living in those households;
- (b) the number of visitors to those households that picked-up and read or paged through the magazines; and
- (c) the servants in those households that read or paged through those magazines.

Answers, even if some of them were 'second hand', to these questions were provided in the test surveys.

## PRIMARY HOUSEHOLD RPC

|                         | Mini-<br>mum | Average<br>claimed | Maxi-<br>mum      |
|-------------------------|--------------|--------------------|-------------------|
| (1) Self-               |              |                    |                   |
| the informant           | t 1.0        | 1.0                | 1.0               |
| (2) Other adults        |              |                    |                   |
| in household            | 0.3          | 1.3                | 2.6               |
| (3) Visiting readers to |              |                    |                   |
| household               | 0.3          | 0.5                | 1.4               |
| (4) Domestic            | 0.5          | 0.5                | 1.4               |
| servant                 |              |                    |                   |
| readers                 | 0.1          | 0.2                | 0.3               |
| Total primary           | 1.7          | <u>0.2</u><br>3.0  | $\frac{0.3}{5.3}$ |

## SECONDARY AND TERTIARY HOUSEHOLDS

In the questioning procedure used in these test surveys we cannot differentiate between secondary and tertiary households.

We have information on (a) the origin of the last copy read, and (b) how the copies were disposed of.

However after the first pass-along we do not know if the 'from friend' origin consists of a first pass-along or a later pass-along.

We can however establish the number of in-home readers, visitor-readers and servant-readers in the secondary and tertiary households.

It is my contention that, arithmetically, for the assessment of maximum RPC figures it does not matter if we are dealing with secondary or tertiary households. My reasons for making this statement are:

- (1) In reply to the origin of the last copy read all pass-along readers should theoretically state that they obtained it from a friend or relative.
- (2) From the questions we know for example that if 20% of readers of magazine 'x' claimed they got it from a friend this cumulative figure could be made up of:
- (a) a single pass-along of 20%(b) two pass-alongs of 10% each
- (c) four pass-alongs of 5% each
- (d) any other pass-along pattern for which the sum of the pass-alongs adds up to 20%.

Through cross-tabulations we could also establish to what extent later pass-alongs took place by checking on the number of people who claimed they obtained their copy from a friend and passed it on to another friend.

The crux of my contention is that the net number of additional readers the publication can capture during its pass-along period can be based on the total reading pattern among all pass-along readers and need not be split into first pass-along, second pass-along, or third pass-along readers.

When questioned about the disposal of their magazine 24% of primary readers claimed that they passed on their old copies to friends. This figure varied from 19% pass-along for the low RPC group to 27% for the high RPC group.

| RPC group                 | % of primary<br>readers        |  |  |  |
|---------------------------|--------------------------------|--|--|--|
| . DDC                     | %<br>10 b - C-:                |  |  |  |
| Low RPC                   | 19 to friends                  |  |  |  |
| Medium RPC                | 23 to friends<br>27 to friends |  |  |  |
| High RPC<br>All magazines | 24 to friends                  |  |  |  |
| ATT mayazines             | 27 to 11 161103                |  |  |  |

If the average pass-along pattern of primary readers (24%) were to extend to secondary readers we could, theoretically obtain a cumulative pass-along pattern as shown below in Table 1.

Based on the above logic and table;

The minimum in-home RPC would be 2.2 The average in-home RPC would be 3.9 & The maximum in-home RPC would be 7.0

However in the SAARF surveys we questioned readers on:

The origin of their last copy Where it was read and How they disposed of their last copy

With this combination of questions it was therefore possible for us to separate the claimed primary and secondary readers.

Primary ( readers (

- (i) read it in own home and
- (ii) self or member of own family bought it or subscribed to it.

In-home (i) Read it in own home and Pass-along (ii) Obtained it from a readers friend or relative.

In the same way as we can obtain multiple claims on the *origin* of a copy, we can also obtain multiple claims on the disposal or *pass-along* pattern of copies. In other words 'we' pass on 'our' copies to friends. For this reason the *origin claims* of the secondary readers need not necessarily coincide with the *disposal claims* of the primary readers. This aspect is clearly illustrated in Table 2 taken from the 1985 surveys.

Based on the overall pass-along claims of secondary readers the pass-along pattern is *very much* lower than among the primary readers. As a matter of fact only 2.5% of all readers claimed they obtained their copy from a friend and also passed it on to a friend.

TABLE 1
Possible pass-along patterns

| Details   | Primary<br>household    | Second              | Total                    |                |              |             |                         |
|---|-------------------------|---------------------|--------------------------|----------------|--------------|-------------|-------------------------|
|   | No.1                    | No.2                | No.3                     | No.4           | No.5         | No.6        | readers                 |
| A Number of households  | 1,000                   | 240                 | 58                       | 14             | 3            | 1           | 1,316                   |
| B Minimum readers<br>C Average number of readers<br>D Maximum readers | 1,700<br>3,000<br>5,300 | 408<br>720<br>1,272 | 99<br>17 <b>4</b><br>307 | 24<br>42<br>74 | 5<br>9<br>16 | 2<br>3<br>5 | 2,238<br>3,948<br>6,974 |

TABLE 2
Origin and disposal claims

| RPC group | Orig<br>from 1<br>'000 |      | Dispo<br>to fr<br>1000 |             |
|-----------|------------------------|------|------------------------|-------------|
| Low       | 218                    | 0.36 | 380                    | 0.63        |
| Medium    | 567                    | 0.67 | 883                    | 1.05        |
| High      | 408                    | 0.91 | $\frac{882}{597}$      | 1.97        |
| Very high | 357                    | 1.14 |                        | <u>1.90</u> |
| Total     | 1,550                  | 0.70 |                        | 1.24        |

This analysis was possible by cross-tabulating:

Origin - from friend with ...

Disposal - to friend and limiting it to

In-home - readers

This provided us with an estimate of the sum of secondary or in-home passalong readership.

The overall disposal claims are shown in Table 3.

The detailed cross-tabulations of origin, where read and primary and secondary readership brought to light some interesting findings as well as some interesting anomalies.

If, as shown in the public place inventory studies, over 95% of magazine copies initially enter private

TABLE 3 Claimed disposal patterns

|  | R            | PC group     |              |              |
|--|--------------|--------------|--------------|--------------|
| Method   | Low<br>%     | Medium<br>%  | High<br>%    | Total<br>%   |
| 1 Keep<br>the copies<br>2 Pass on<br>to friend | 34.0         | 30.5         | 20.2         | 28.6         |
| or relative<br>3 Pass on                       | 16.4         | 17.3         | 16.1         | 16.7         |
| to other<br>4 Throw away<br>5 Don't know/      | 16.8<br>24.0 | 15.5<br>24.0 | 16.5<br>30.3 | 16.1<br>25.7 |
| not sure                                       | 8.8          | 12.7         | 16.9         | 12.9         |

TABLE 4
Household size, readers and RPC

| RPC group<br>of magazines | A<br>Average<br>total<br>household<br>size | B<br>Readers<br>per<br>average<br>household | C<br>In-home<br>RPC |
|---------------------------|--|---|---------------------|
| Low RPC                   | 2.5  | 1.9   | 2.8                 |
| Medium RPC                | 2.8  | 2.1   | 3.8                 |
| High                      | 3.7  | 2.7   | 6.3                 |
| Very high                 | 3.2  | <u>2.5</u>                                  | <u>6.8</u>          |
| All magazine              | 3.1  | 2.3   | 4.5                 |

dwellings, then, theoretically, we cannot have more *claimed buyers* than the circulation of the magazine x the average readers per household.

But in Table 4 (Column 'C') the RPC is considerably higher than the number of readers per average household.

| 47%  | higher for the      |              |
|------|---------------------|--------------|
|      | low RPC group       | (2.8 vs 1.9) |
| 81%  | higher for the      |              |
|      | medium RPC group    | (3.8 vs 2.1) |
| 133% | higher for the      |              |
|      | high RPC group and  | (6.3 vs 2.7) |
| 172% | higher for the      |              |
|      | very high RPC group | (6.8 vs 2.5) |

Why should the number of 'in-home' RPC between the 'low' and the 'very high' group differ by four RPC (from 2.8 to 6.8) when the number of adults living in these homes differ by only 0.7 adults (from 2.5 to 3.2)?

It may be argued that visitors and servants could be responsible for this build-up in RPC but the survey data completely refuted this.

Visitors reading ranged from 0.5 to 1.4 RPC and Servants readers ranged from 0.1 to 0.3 RPC

## A FEW VITAL QUESTIONS

(1) If in own-home reading is responsible for most of the readers and Table 5 clearly shows it.

TABLE 5
Where last reading took place

| RPC group                          | Own F<br>home               | ace of<br>riend'<br>home<br>% | s At        | Other places                | Total<br>%               |
|------------------------------------|-----------------------------|-------------------------------|-------------|-----------------------------|--------------------------|
| Low<br>Medium<br>High<br>Total all | 70<br>70<br><u>70</u><br>70 | 11<br>11<br>10<br>11          | 8<br>9<br>9 | 11<br>11<br><u>11</u><br>11 | 100<br>100<br>100<br>100 |

- (2) The highest number of adult readers in the average home for any magazine was 3.6 and ...
- (3) The number of visitors to the home in fact forms part of the 11% who claimed they read it in "A friend or relative's home" then ...
- (4) If 70% of the audience of a magazine does not exceed 3.6 then the writer cannot see how a publication can 'build-up' 10 or more RPC.

The main possible causes seems to be in replication or in false status claiming.

There are however a number of other possible 'culprits' all capable of playing a significant role in inflating RPC.

#### THE MAIN HIGH RPC 'CULPRITS'

Not necessarily in sequence of priority:

- (1) Replication
- (2) Status inflation
- (3) Small samples
- (4) Broad readership definition
- (5) Low circulation 'density'

Let us take closer look at these anomalies from another angle.

## THE BASIC RECENCY MODEL

Although this may sound like teaching Grandmother to suck eggs let us take a quick look at the basic `recency model'.

A specific issue of a specific publication, if viewed on a 'biographical basis' gains its full audience over a period of time. This period of time may range from two or three days in the case of a daily paper to many months or even years in the case of certain monthly magazines.

TABLE 6
Time lapse and audience build-up

| Example            |          | La  | ose      | <i>d</i> : | tii | пе  |     |     |
|--------------------|----------|-----|----------|------------|-----|-----|-----|-----|
| and source         | in       |     | ssu      |            |     |     | od. | s ′ |
|                    |          |     | 3        |            |     |     |     |     |
| A Coupon response  |          |     | %        |            |     |     |     |     |
| (Daniel Starch)    | ,,,      | ,,, | ,,,      | ,,,        | ,,, | ,,, | 70  | ,,, |
|                    | 5.4      | 25  | 7        | 1          | 3   | 2   | 2   | 3   |
| Monthly magazines  | 54<br>54 | 23  | <b>,</b> | -          | J   | 2   | 2   | J   |
| Monthly magazines  | 54       | 22  | Ö        | Э          |     | 3   | 2   | 4   |
| P. C               |          |     |          |            |     |     |     |     |
| B Surveys          |          |     |          |            |     |     |     |     |
| (1) Alfred Politz  |          |     |          |            |     |     |     |     |
| (RD)               | 55       | 32  | 9        | 4          | -   | -   | -   | -   |
| (2) Axel Springer  |          |     |          |            |     |     |     |     |
| Weeklies           | 65       | 17  | 6        | 4          | 2   | 2   | 1   | 3   |
| Monthlies          | 72       | 17  | 7        | 4          | _   | _   | -   | -   |
|                    |          |     |          |            |     |     |     |     |
| (3) Shepherd-Smith |          |     |          |            |     |     |     |     |
| Weeklies           | 60       | 10  | 12       | 4          | 3   | 1   | 1   |     |
| Meekiles           | 00       | 13  | 12       | 7          | J   | 1   | 1   | -   |
| My example         |          |     |          |            |     |     |     |     |
|                    | 4.4      | 22  | 1 5      | ^          | _   | ٠,  |     |     |
| A Profile          |          | 23  | 15       | 9          | b   | 3   | -   | -   |
| B Audience         | 15       | 8   | 5        | 3          | 2   | 1   | -   | -   |
|                    |          |     |          |            |     |     |     |     |

The length of the 'tail', that is the period over which the publication gains its audience, does not theoretically, affect the basic recency model. In other words if we 'put together' a series of issues of the publication (See Table 7) then the audience size added per issue period that is the 'vertical columns' must equal the audience size as calculated 'biographically' or horizontally. This is clearly illustrated in Table 7.

If we take a closer look at the recency model then it becomes clear that:

A Circulation can only be 'created' during the periods when specific issues are 'on sale'.

B If the model itself is correct, (it was 'passed' by the late great statistician Sir Maurice Kenall) then the circulation/buyer link should also be correct. In other words 'buyers' of specific issues can also only be 'created' during the periods when those

specific issues are on sale. That is during the 'shaded' periods in the table.

- C If we can check on the ages of the issues via which buyer readers qualified as readers then it should be possible to duplicate or reproduce the basic model and
- **D** If we can establish the basic link between claimed buyers and circulation then we should be able to get back to circulation via the recency model.

## SUMMARY OF POSSIBLE PUBLIC PLACE READING

In this brief review the writer will not go into the complexities of establishing the possible probabilities of a specific issue of a specific magazine being picked up and read in a specific 'public place' by a specific individual visitor. We will limit the discussion to 'general probabilities' giving each copy of the available magazines an 'equal opportunity' of being picked up and read.

The figures used in this review are broadly based on survey findings.

- (1) We have a public place which contained 30 magazines.
- (2) Of the 30 magazines:
- 10 are weekly magazines 9 are fortnightlies and 11 are monthlies.
- (3) On average 36 customers enter the public place per working day and 19 of these people pick up a magazine and read it or page through it. If the magazines are picked up at random the probability of one of the 30 copies being picked up is  $19 \div 30$  or .63.
- (4) Based on the inventory study the average public place received 36 visitors per day. There were 5,232 public places in the Transvaal.

| TABL | .E 7  |         |       |
|------|-------|---------|-------|
| The  | basic | recency | model |

| Issue   |    |         | Pas                 | t issu                   | e peri                        | ods                                |                                    |                                    | Fu                    | ture             | perio       | ds     | Issue                                  |
|---|----|---------|---------------------|--------------------------|-------------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------|------------------|-------------|--------|--|
| number  | 8  | 7       | 6                   | 5                        | 4                             | 3                                  | 2                                  | 1                                  | 1                     | 2                | 3           | 4      | totals                                 |
| Issue 1 Issue 2 Issue 3 Issue 4 Issue 5 Issue 6 Issue 7 Issue 8 | 15 | 8<br>15 | 5<br>8<br><b>15</b> | 3<br>5<br>8<br><b>15</b> | 2<br>3<br>5<br>8<br><b>15</b> | 1<br>2<br>3<br>5<br>8<br><b>15</b> | 1<br>2<br>3<br>5<br>8<br><b>15</b> | 1<br>2<br>3<br>5<br>8<br><b>15</b> | 1<br>2<br>3<br>5<br>8 | 1<br>2<br>3<br>5 | 1<br>2<br>3 | 1<br>2 | 34<br>34<br>33<br>31<br>28<br>23<br>15 |
| Period<br>totals  | 15 | 23      | 28                  | 31                       | 33                            | 34                                 | 34                                 | 34<br>No                           | w                     | Etc              | <u>-</u>    |        |  |

The total 'visitors' per month would therefore be:

5,232 x 22 x 36 = 4,143,744 visitors of days per day per month

- (5) According to the AMPS Pilot Study 2,148,000 people had visited one or more public places during the 'past four weeks' and they had, in total, made 4,322,000 visits. This is, on average, approximately 2.01 public place visits per visitor per month.
- (6) If this figure of 4.3m is converted to visitors per working day per average public place we get:

$$4,322,000 \div 22 \div 5232 = 37.5$$
Total for number of Number of 4 weeks working public days places

36 visitors per day via the Inventory Study 37.5 visitors per day via the AMPS Pilot study (7) According to the AMPS study 52% of these public place visitors claimed they read or paged through the magazines.

52% of 36 = 18.7 52% of 37.5 = 19.5Figure used = 19.5

- (8) The probability of a single reader-customer picking up any of the 30 magazines = 1/30 or .0333. With 19.5 reader customers per day the pick-up probability per publication would be .0333 x 19.5 or <u>0.65</u>.
- (9) With 5,232 public places and 30 magazines per public place there would be 5,232 x 30 or about 157,000 copies magazines in all the public places.
- (10) If the 19.5 reader visitors to each public place generated a probability of .65 possible pick-ups per magazine (19.5  $\div$  30) then the total possible daily pick-ups for a single magazine in all 5,232 public places would be .65 x 5,232 = 3,401.
- (11) In a public place a magazine cannot generate readers when the public place is closed. With a 5.5 day

working week the 'reader generation ability' of a public place for:

A weekly
magazine would be 5.5 x 3,401 = 18,706
A fortnightly
would be 11 x 3,401 = 37,411
A monthly
magazine would be 22 x 3,401 = 74,822

(12) With 10 weekly, 9 fortnightly and 11 monthly magazines in the average public place the 'reader generating' capacity would therefore be:

18,706 x 10 = 187,000 for weeklies 37,411 x 9 = 337,000 for fortnightlies 74,822 x 11 = 823,000 for monthlies.

(13) We have the total circulation figures for all these different types of magazines and can therefore calculate the RPC in public places for each type. (Table 8)

TABLE 8
Public place RPC by type of publication

| Type of magazine | Total public place average issue readers '000 | Circulation<br>per type<br>'000 | RPC<br>per<br>type |
|------------------|---|---------------------------------|--------------------|
| Weeklies         | <u>823</u>                                    | 551                             | 0.34               |
| Fortnight        |   | 342                             | 0.99               |
| Monthlies        |   | <u>1,234</u>                    | <u>0.67</u>        |
| Total all        |   | 2,127                           | 0.63               |

## Special note

The RPC figures in the above table do not make allowance for the fact that with an average age 15 months replicated reading may be substantial in the case of public place magazines.

With multiple visits to these public places also being common - "I go to my hairdresser every Friday" and the high average age of the copies the above RPC figures are probably on the high side.

## A PARTIAL SUMMARY

Having briefly reviewed possible reader generation in the primary household, the secondary household and in public places and having shown that the facts do not support the feasibility of the very high RPC that some magazines obtain let us examine the possible causes and see whether visual verification is a possible solution to this problem.

Let us start off by taking a closer look at replication as a possible culprit in the high RPC problem.

## THE THEORETICAL EFFECTS OF REPLICATION

In the 1985 SAARF experiments we attempted to obtain an estimate of the level of replication through the use of a 'first reading' question. For example in the case of weekly magazines the question read as follows:

"You mentioned that the last time you read a copy of ... (mention magazine) was during the past seven days. Was this the first time you read or paged through that particular copy or was the first time more than seven days ago?"

In the case of fortnightly and monthly magazines the period referred to was 14 days and four weeks respectively.

It is common knowledge that attempts to design questions to counteract replication have not been particularly successful. In this instance the above questions, for what they are worth, resulted in an appreciable drop in RPC levels. (Table 9)

The extent to which replication can occur can, theoretically, be calculated by what the writer has called the 'Issue gap theory'. This simply consists of taking all the possible reading combinations within a frequency of reading group and checking on the extent to which readership could be inflated by 'Gaps being filled' as the result of multiple reading occasions

TABLE 9
Effect on RPC of the first-reading question

| Publication<br>group   | A<br>`Recency'<br>RPC           | B<br>First<br>reading<br>RPC    |                                 |
|--|---------------------------------|---------------------------------|---------------------------------|
| `Low' group<br>`Medium' group<br>`High' group<br>All magazines | 3.2<br>5.0<br><u>8.1</u><br>5.6 | 2.1<br>3.0<br><u>4.4</u><br>3.2 | 1.1<br>2.0<br><u>3.7</u><br>2.4 |
| A Predominantly 'white' magazines                              | 4.7                             | 3.0                             | 1.7                             |
| B Predominantly<br>`black' magazines                           | 8.6                             | 4.2                             | 4.4                             |

and the telescoping of 'the last' reading event.

An example of how the theory works is shown in **Figure 2** for the two out of six frequency group.

It can easily be seen in the illustration how later readings in the second last issue period can 'move' readers from beyond the 'qualifying' period into the qualifying period.

The 'filling' of a single gap (the shaded spaces in the illustration) could inflate reading claims by 80% for this particular frequency group.

FIGURE 2
All the possible reading patterns for the two out of six group

| Inf.  |   | Iss | ue | num | ber            |   | ]                    |
|-------|---|-----|----|-----|----------------|---|----------------------|
| no.   | 1 | 2   | 3  | 4   | 5              | 6 | ]                    |
| 1     | _ | _   | _  | _   | R              | R |                      |
| 2     | - | -   | -  | R   | R              | - | ],                   |
| 3     | - | Ī - | Ř  | R   | -              | - | ]₹                   |
| 4     | - | R   | R  | -   | T <del>-</del> | - |                      |
| 5     | R | R   | -  | -   | -              | - | 1                    |
| 6     | R | -   | -  | -   | -              | R |                      |
| 7     | - |     | -  | R   | -              | R | ∖ The                |
| 8     | - | -   | R  | -   | R              |   | <b>→</b> four `gaps' |
| 9     | - | R   | -  | R   | -              | - | //that can           |
| 10    | R | -   | R  | -   | -              | - | // be `filled'       |
| 11    | - | R   | _  | -   | -              | R |                      |
| 12    | R | -   | -  | -   | R              | - | 1/                   |
| 13    | - | -   | R  | -   | -              | R | <u>/</u>             |
| 14    | - | R   |    | -   | R              | - | <b> </b>             |
| 15    | R | -   | -  | R   | -              | - |                      |
| Total | 5 | 5   | 5  | 5   | 5              | 5 | Interview            |
| Last  | - | 1   | 2  | 3   | 4              | 5 | • <b>←</b> here      |

A Most recent issue period = 33.3% B Second last issue period = 26.7% Possible inflation B on A (4 on 5) = 80%

In the same way as the audience accumulates over time one can calculate the cumulative audience backwards over time - that is issue-periods ago. If we do this within the different frequency groups we obtain the picture shown in Table 10.

TABLE 10 Cumulative audience over time

|                 | <u> </u> | Issue - periods of time 1 2 3 4 5 |        |        |        |       |  |  |  |  |
|-----------------|----------|-----------------------------------|--------|--------|--------|-------|--|--|--|--|
|                 | 1        | 2                                 | 3      | 4      | 5      | 6     |  |  |  |  |
| Frequency group | Current  |                                   |        |        |        |       |  |  |  |  |
| l out of 6      | 16.67    | 33.33                             | 50.00  | 66.67  | 83.33  | 100.0 |  |  |  |  |
| 2 out of 6      | 33.33    | 60.00                             | 80.00  | 93.33  | 100.00 |       |  |  |  |  |
| 3 out of 6      | 50.00    | 80.00                             | 95.00  | 100.00 |        |       |  |  |  |  |
| 4 out of 6      | 66.67    | 93.33                             | 100.00 |        |        |       |  |  |  |  |
| 5 out of 6      | 83.33    | 100.00                            |        |        |        |       |  |  |  |  |
| 6 out of 6      | 100.00   |                                   |        |        |        |       |  |  |  |  |

If we now apply the 'gap filling' concept to all the frequency groups we can calculate the levels of possible inflation that could occur with different rates of replication within all the frequency groups. (Table 11)

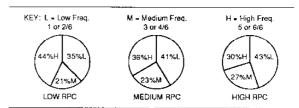
TABLE 11
Possible levels of replicated-inflation within each frequency group

|  | Nu                          | mber                   | of ga                       | ps `f                          | illea  | "      |
|--|-----------------------------|------------------------|-----------------------------|--------------------------------|--------|--------|
| Frequency<br>group   | 1<br>%                      | 2<br>%                 | 3<br>%                      | <b>4</b><br>%                  | 5<br>% | 6<br>% |
| 1 out of 6<br>2 out of 6<br>3 out of 6<br>4 out of 6<br>5 out of 6<br>6 out of 6 | 100<br>80<br>60<br>40<br>20 | 200<br>140<br>90<br>50 | 300<br>180<br>100<br>-<br>- | 400<br>200<br>-<br>-<br>-<br>- | 500    | -      |

If in addition to the 'gap filling' process readers often also overestimate their basic frequency level, this can clearly be shown in the case of daily papers, then it becomes obvious that appreciable levels of replicated - inflation can occur in the lower frequency groups.

The fact that the high RPC magazines are the magazines with a high proportion of their readers in the lower frequency groups is clearly illustrated in Figure 3.

FIGURE 3
Frequency profiles within RPC groups



Key: L = Low frequency 1 or 2/6 M = Medium frequency 3 or 4/6 H = High frequency 5 or 6/6

As stated elsewhere in this paper one cannot, theoretically, have more claimed average issue buyers than the circulation multiplied by the number of adults in the primary household. (Figure 4)

FIGURE 4
The logic of claimed 'buyers'

Theoretically



One copy

CAN ONLY HAYE

One 'buyer'



or



But in practice





In one household

COULD HAVE ALL the adults claiming

We' subscribe to it or bought it

RPC household size, readers, buyers and circulation

|   |     | R      | PC grou |              |       |
|---|-----|--------|---------|--------------|-------|
| Details                                       | Low | Medium | High    | Very<br>high | Total |
| A Average household size (adults only)        | 2.5 | 2.8    | 3.7     | 3.2          | 3.1   |
| B Average adult readers in reader households  | 1.9 | 2.1    | 2.7     | 2.5          | 2.4   |
| C In-home RPC                                 | 2.8 | 3.8    | 6.3     | 6.8          | 4.5   |
| D Primary households RPC among claimed buyers | 2.5 | 3.7    | 5.8     | 6.6          | 4.2   |
|   |     |        |         |              |       |

If however we take a closer look at claimed primary readers and claimed self or family member buyers or subscribers we obtain an interesting anomaly. (Table 12)

Readers per copy can only be generated in four places! (Figure 5)

## FIGURE 5 The generation of RPC

RPC can only be generated in four ways!

- In 'own' ie primary homes (1)
- In 'other' homes (pass-along)
  In 'other' homes (visiting) (2)
- (3)
- (4) In 'public' places.

If the high RPC are not being generated in public places then they must be generated in private dwellings.

If they are being generated in private households then it must be the result of pass-along readership.

And if it is the result of pass-along readership then it is impossible that seven out of ten readers claim that they are buyers or subscribers.

Using the average number of claimed magazine readers per household (2.4) we can, theoretically calculate the

proportion of readers, primary or passalong, that could claim to be buyers! Table 13 illustrates this aspect.

To generate more than ten true RPC via in-home reading the magazine would have to pass through at least four households.

Under these circumstances the minimum proportion of readers that could claim to be a buyer (that is one person in the primary household) would be 10.4% and the maximum that could claim to be buyers would be 25%. (That is all adult readers in the primary household claiming to have bought it.)

The writer believes that the main 'culprits' in the RPC inflation are as follows.

Time does not permit me to dwell on the other RPC inflating factors. I would however just like to stress the fact that among certain sections of our population status claiming plays a significant role. Figure 6 illustrates, as an example, how newspaper reading claims can be 'reduced' if we give informants two or three opportunities to impress the interviewer with their reading claims before we come to the key readership question.

Status claiming is in fact 'false' claiming and its effects on RPC can in

TABLE 13
Theoretical reader and buyer patterns

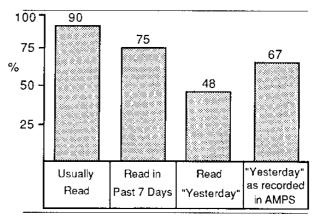
|   |   | Виз                          | vers                                     |                              |                            |                                     |
|---|---|------------------------------|--|------------------------------|----------------------------|-------------------------------------|
| Possible pass-along patterns  | A<br>Minimum<br>readers<br>1 per<br>household | B<br>Single<br>sex<br>only   | C<br>67% 1st<br>versus<br>33% 2nd<br>sex | D<br>Sex<br>ratio<br>50/50   | E<br>Minimum<br>1<br>buyer | F<br>Maximum<br>primary<br>`buyers' |
| 1 Primary house number Minimum % buyers Maximum % buyers 2 Second house       | 1.0<br>100%<br>100%                           | 1.2<br>83.3%<br>100%         | 1.8<br>55.6%<br>100%                     | 2.4<br>41.7%<br>100%         | 1.0                        | 2.4                                 |
| Number this house Cume 1 + 2 Minimum % buyers Maximum % buyers 3 Third house  | 1.0<br>2.0<br>50%<br>50%                      | 1.2<br>2.4<br>44.7%<br>50%   | 1.8<br>3.6<br>27.8%<br>50%               | 2.4<br>4.8<br>20.8%<br>50%   | 1.0                        | 2.4<br>2.4                          |
| Number this house Cume 1 - 3 Minimum % buyers Maximum % buyers 4 Fourth house | 1.0<br>3.0<br>33.3%<br>33.3%                  | 1.2<br>3.6<br>27.8%<br>33.3% | 1.8<br>5.4<br>18.5%<br>33.3%             | 2.4<br>7.2<br>13.9%<br>33.3% | 1.0                        | 2.4<br>2.4                          |
| Number this house Cume 1 - 4 Minimum % buyers Maximum % buyers 5 Fifth house  | 1.0<br>4.0<br>25%<br>25%                      | 1.2<br>4.8<br>20.8%<br>25%   | 1.8<br>7.2<br>13.9%<br>25%               | 2.4<br>9.6<br>10.4%<br>25%   | 1.0<br>1.0                 | 2.4<br>2.4                          |
| Number this house<br>Cume 1 - 5<br>Minimum % buyers<br>Maximum % buyers       | 1.0<br>5.0<br>20%<br>20%                      | 1.2<br>6.0<br>16.7%<br>20%   | 1.8<br>9.0<br>11.1%<br>20%               | 2.44<br>12.0<br>8.3%<br>20%  | 1.0                        | 2.4                                 |

fact be calculated by applying the level of false claiming to the complement of circulation penetration. (Figure 7)

# THE CONCEPT OF VISUAL VERIFICATION OF READING CLAIMS

for a number of years the 'space reps' for two programme magazines, Family Radio & TV and Radio TV Dagboek have 'suffered' under a disadvantage in that the users of the official AMPS reports complained that the RPC figures (12 to 14) were 'unbelievable', 'ridiculous' or 'unacceptable'. The high RPC figures in fact became counter-

FIGURE 6 Effect of status deflating questions



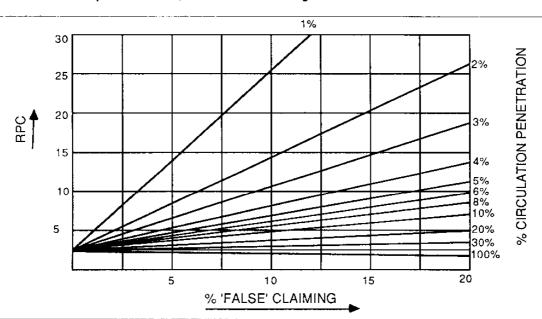


FIGURE 7
Real circulation penetration, 'false' claiming and RPC

productive resulting in the elimination of these magazines from the candidate lists.

In a public place inventory study we had undertaken for SAARF we did not find a single current issue of either of these two magazines. This meant that virtually all current issues of them must have entered private dwellings.

In a detailed Editorial Interest survey for the publishers we added a few extra questions to the questionnaire.

Under the pretext of wanting to check on the print quality of copies we asked our informants to product the most recent copy of the magazine(s) that they had read. The grossed up findings of the study, based on visual verification of the 'most' recent issue read showed that we accounted for 81% of the circulation of Family Radio & TV and 92% of the circulation of Radio & TV Dagboek.

I sincerely believe that if an informant claims:

- A "I sometimes read this magazine" and B He read it during the most recent issue period and
- C He can produce the copy read and
  D Most of the copies produced are the
  `current' issues and
- E The grossed-up findings of the 'current' issues reflect a high proportion of the actual present circulation then
- F This evidence provides fairly factual proof that the informant can be 'accepted' as a reader.

If the above logic is accepted as reasonable proof of readership then the study 'proved' that the RPC claims in the main AMPS report was far too high.

With these rather promising results the SAARF Technical Committee agreed to include 'Visual verification' in the AMPS '85 Pilot Surveys.

Asking informants to produce the copy in the case of 57 publications was not as easy as for two magazines but the results were nevertheless interesting. Here is the basic thinking behind the VV method.

## A VISUAL VERIFICATION EXERCISE

- A We start off with 1000 dwellings, a perfect sample of the whole 'Universe'.
- **B** A woman's magazine *Womag* 'enters' 40% of these dwellings, that is its circulation is 400 in the sample dwellings.
- C In 500 dwellings we interview a male and in 500 dwellings we interview a woman.
- **D** 40% of the women (200) read *Womag* and can produce it, ie 200 produced copies!
- E However in the homes where a male was interviewed the same proportion (theoretically) also contained a copy of Womag but we only asked the male reader to produce a copy and only half as many men as women read it, that is 20% versus 40%.

20% of 500 = 100

- F The survey will therefore 'produce' 300 copies as proof of circulation instead of the 400 in the market-place.
- G If, however, both sexes read the publication then the publication's profile would be (50/50) then the grossing-up to circulation would be correct. However where it is not equal a 'correction factor' should be applied. In the above example it would be:

'Correct' profile 50/50 ie two people per household. Reader profile 66.7% women and 33.3% men ie 1.5 people per household.

The correction factor would then be:

 $2 \div 1.5 = 1.33$ 

And  $1.33 \times 300 = 400$  ie the correct figure.

The following tables illustrate the findings of the SAARF Pilot Studies and clearly show the differences in RPC

figures at the different 'levels' of readership claims.

## SOME COMMENTS ON RPC AND VISUAL VERIFICATION

(1) In the visual verification section it was possible at the analysis stage to cross-tabulate the *visually verified ages* of the publications within each of the frequency of reading groups.

## WHEN LAST READ - THEORY VERSUS VERIFIED

| Number of | A             | В          |
|-----------|---------------|------------|
| periods   | % Theoretical | % Verified |
| ago       | when last     | ages       |
| 1         |               | 7.0        |
| l current | 57            | 72         |
| 2         | 17            | 10         |
| 3         | 10            | 3          |
| 4         | 7             | 2          |
| 5         | 5             | 3          |
| 6 and     | over 4        | 10         |

It should be remembered that the age verification was only possible with inhome readers and Column 'A' above is based on total readers. There was time to do further 'when last' crosstabulations on in-home readers.

- (2) Table 14 provides some interesting findings.
- (3) With the following combination of findings:
- A Three out of four RPC are being generated in-the-home and
- B An average of only 2.4 adult readers in the average reader-home and
- C Less than one RPC being generated in public-places and
- D The second pass-along level (that is from friend to friend) being less than 5%
- E The high number of RPC being generated by claimed 'buyers' in primary households.

It seems to be arithmetically and logically 'impossible' to generate some of the high RPC figures recorded in AMPS in South Africa, and in some readership surveys in Europe and elsewhere.

TABLE 14
An interesting RPC summary

|          |      |                       | Readershi | p claims           |                  |               | `Verified'      | ,                          |
|----------|------|-----------------------|-----------|--------------------|------------------|---------------|-----------------|----------------------------|
| RPC grou | р    | Some<br>times<br>read | AIR       | Read<br>in<br>home | First<br>reading | Copy<br>seen  | Copy<br>current | Actual<br>circu-<br>lation |
| Low      | '000 | 3,148                 | 1,928     | 1,512              | 1,236            | 326           | 255             | 600                        |
|          | RPC  | 5.25                  | 3.21      | 2.52               | 2.06             | 0. <b>5</b> 4 | 0.42            | 1.00                       |
| Medium   | ′000 | 7,644                 | 4,188     | 3,176              | 2,557            | 445           | 330             | 842                        |
|          | RPC  | 9.08                  | 4.97      | 3.77               | 3.04             | 0.53          | 0.39            | 1.00                       |
| High     | 1000 | 12,494                | 6,134     | 4,651              | 3,319            | 318           | 202             | 762                        |
|          | RPC  | 16.40                 | 8.05      | 6.10               | 4.36             | 0.42          | 0.27            | 1.00                       |
| Total    | ′000 | 23,286                | 12,250    | 9,339              | 7,112            | 1,089         | 787             | 2,204                      |
|          | RPC  | 10.56                 | 5.56      | 4.24               | 3.23             | .49           | 0.36            | 1.00                       |

#### **GENERAL REMARKS**

- (1) In monetary terms the main use of market research is to establish market sizes and market shares. If readership research is 'properly done' we should be able to 'generate' the sales, that is circulations of publications via our surveys.
- (2) Publication buyers are intentional readers and intentional readers are better informants than incidental readers.
- (3) If our readership methods cannot establish or 'generate' circulation accurately it is unlikely that we can produce total average issue audiences accurately.
- (4) An aspect that we are often inclined to overlook is that when, for example, we measure the Average Issue Readership (AIR) of a weekly magazine we are not dealing with a single product we are in fact dealing with 26 'different' products during six months or 52 'different' products during a year.

- (5) 'Buyer readers' for a specific issue of a specific magazine can only be 'generated' during the period when that specific issue is on sale and a specific issue is, normally, only on sale for one issue period!
- (6) If we do not find 'current' issues of consumer magazines in 'public' places then 'public' places cannot be contributing to current circulations and, with the exception of places like libraries, the total number of current copies must therefore be entering private dwellings.
- (7) If the copies of current issues are entering private dwellings then we should be able to find them there. (If our informants co-operate.)
- (8) Only residents of primary dwellings can, theoretically, claim to be buyers of or subscribers to a publication.
- (9) Over nine out of ten (92%) of buyer readers 'qualify' as readers of a specific issue within the first issue period after they have bought it.

Whether this is also a fact with subscribers is not known.

- (10) If points 8 and 9 are accepted as a starting point then:
- A Very few real buyer readers should be 'qualifying' as readers via the Recent Reading method, with copies more than one issue old!
- **B** If additional people in the same primary household also claim that they bought it or subscribe to it then the number of claimed buyers cannot exceed the average number of adults in the average primary reader household.
- (11) If the aspects put forward in points 8, 9 and 10 are combined with the concept of visual verification of the most recently read copy or issue of a publication then we should be able to
- A Establish levels of replication B Obtain an indication of status inflation C Obtain data which will help us in the circulation density versus RPC picture.
- (12) We must assume, for discussion purposes, that circulation is a completely factual figure!
- (13) In theory there should only be one buyer for one copy. However, in practice other adult readers in the primary household could also claim 'we' bought it or 'we subscribe to it'.
- (14) If the sex profile of the publication is biased in favour of one sex claimed readers and/or buyers can be reduced substantially.
- (15) The sex-profile proportion can be used to calculate the maximum number of readers per average household as well as to 'correct' the number of 'visually verified' current copies recorded in the field.

The following formula can be used for this purpose in a country where the male to female ratio is nearly 50/50.

|        |       | Adults/           |            | Adults/          |
|--------|-------|-------------------|------------|------------------|
| (Minor | sex % | x <u>househol</u> | <u>d</u> + | <u>household</u> |
| (Major | sex % | 2                 |            | 2                |

- (16) If a copy of a magazine does not Teave its primary household and it is not read by visitors to that household then it cannot have more RPC than the number of adults in that household plus visitors and servants.
- (17) Trying to calculate AIR via the first reading event for 'yesterday' is a much more complicated procedure than researchers realise. The AIR figures generated by this method can only be accurate if the sample is perfectly balanced by day of the week and week of the month. The following is a review of news-stand sales for weekly magazines in South Africa linked to the day they are placed on sale.

If the 'flow' of copies into the market-place is not even and the interviewing pattern of the research company is not *perfect* and evenly spread by day of week and week of month then the 'yesterday' readership method can introduce substantial errors. The example in Table 15, taken from my book (Langschmidt, 1978), clearly illustrates this point.

- (18) If public place readership is not 'responsible' for the high RPC then it must be coming from pass-along readership.
- (19) It cannot, however, be coming from pass-along because only 10 to 15% of 'yesterday's' 'last issue' readers claim they got their copy from a friend.
- (20) We can theoretically simulate any 'readership situation' but based on the above facts we 'cannot produce' the high RPC shown in AMPS for certain publications.

TABLE 15
Yesterday reading scores for publications published on different days and applying the observation survey buying patterns

|  |                                    |                              |                                    | ,                                  | Day                                | of w | eek | and r                              | readin                       | ng %                          |                                    |                                    |     |     |                                  | tal<br>Daily  |
|--|------------------------------------|------------------------------|------------------------------------|------------------------------------|------------------------------------|------|-----|------------------------------------|------------------------------|-------------------------------|------------------------------------|------------------------------------|-----|-----|----------------------------------|---|
| Day of<br>publishing   | Mon                                | Tue                          | Wed                                | Thu                                | Fri                                | Sat  | Sur | Mon                                | Tue                          | Wed                           | Thu                                | Fri                                | Sat | Sun | Tot.                             | aver-<br>age  |
| Sunday<br>Monday<br>Tuesday<br>Wednesday<br>Thursday<br>Friday<br>Saturday | 37<br>3<br>5<br>7<br>9<br>15<br>24 | 24<br>37<br>3<br>5<br>7<br>9 | 15<br>24<br>37<br>3<br>5<br>7<br>9 | 9<br>15<br>24<br>37<br>3<br>5<br>7 | 7<br>9<br>15<br>24<br>37<br>3<br>5 |      |     | 37<br>3<br>5<br>7<br>9<br>15<br>24 | 24<br>37<br>3<br>5<br>7<br>9 | 15<br>24<br>37<br>3<br>5<br>7 | 9<br>15<br>24<br>37<br>3<br>5<br>7 | 7<br>9<br>15<br>24<br>37<br>3<br>5 |     |     | 92<br>88<br>84<br>76<br>61<br>39 | 18.4<br>17.6<br>16.8<br>15.2<br>12.2<br>7.8<br>12.0 |
| Theoretica<br>Mon.<br>perfect  | 11y<br>37                          | 24                           | 15                                 | 9                                  | 7                                  | 5    | 3   | 37                                 | 24                           | 15                            | 9                                  | 7                                  | 5   | 3   | 100                              | 14.3  |

Note: (1)The above table shows the 'yesterday' scores that will be picked up via a five day working week as compared with the theoretically perfect seven day working week on which the 'perfect model' is based. (2) Friday is thus 61% lower than the theoretical perfect or the theoretically perfect is 156% higher than Friday.

- (21) Intensive interviewing on readership like Belson does *increase* recency reading claims and will not 'reduce' RPC figures (Belson, 1962).
- 22. Applying the above points to the basic recency method clearly shows that it is theoretically incorrect to 'allow' a publication to have more claimed 'buyers' than its circulation multiplied by the number of adult readers per average primary household.
- (23) If the reading claims of the 'buyer-informants', and they are

'better' informants, is appreciably inflated compared with factual circulation figures, then it is reasonable to assume that the non-buyer reading claims are also inflated.

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Belson, W (1962) *Studies in readership* Business Publications Ltd.