

The Reading Revolution. React, Reposition, Recalibrate.

By Peter Langschmidt, Publisher Research Council of South Africa

Abstract.

After 40 years of a single Super JIC, SAARF (South African Audience Research Foundation) and a single source study, AMPS (All Media & Products Survey) the South African media research industry was turned on its head in late 2015 when all the media owners left SAARF and formed their own JIC's. All the major newspaper, magazine and websites formed the PRC (Publisher Research Council). The individual JIC's then embarked on their own currency survey and the PRC together with the BRC (Broadcast Research Council) conducted the first Establishment Survey (ES) to act as a hub for all the new donor currency surveys. With a fresh start, the PRC could examine best practice throughout the world and embark on a brand-new research programme to sell the print and digital properties of their members. In addition to the ES, we have conducted six studies over the course of the last 18 months. This is the summary of all the studies and analysis we undertook to sell print in our brave new world. These focused on both Quality (the inherent strengths of reading vs. other media) as well as totally revised Currency measures.

The Catalyst, The Establishment Survey Reading Results

Unlike AMPS which was a "bottom up" study, and included 158 print titles with mastheads from which magazine and newspaper category readership was derived, the ES merely asked about newspaper and magazine reading. Because of this "unaided" approach vs. the AMPS "aided" methodology; readership levels, particularly magazines, plummeted.

While broadcast media reach had increased from AMPS, when we saw the first 2 months of pilot data in Sept 2016, we realised that we had to react quickly, to reposition reading as a quality, top end medium, rather than a quantity, mass market medium. While this paper and the presentation do not focus on the ES per se, it was as a direct result of this new lower penetration of newspapers and magazines that we decided to embark on what we termed at the time the Quality research programme. This morphed into the READ programme, and it focussed on all the inherent strengths of reading vs. other media types.

The READ (Quality) Research Programme.

We only embarked on this because we had to! We had lost our primary raison d'être, with reduced reach levels, we had to look elsewhere for other ways to compete with broadcast. In hindsight this was a blessing, the "quality" arguments we developed have been very well received by both the clients and media planners. But the greatest benefit, came from rejuvenated sales people at our member publishers. For years they had been getting a "smack" from TV as our circulation and audiences declined, now they had studies which "proved" that the quality of a read impact was superior to a viewed or heard one. They loved the READ programme and use every element each day. Although we have subsequently increased our reading levels on the ES, we will undoubtedly continue with these "non -currency" studies in the future.

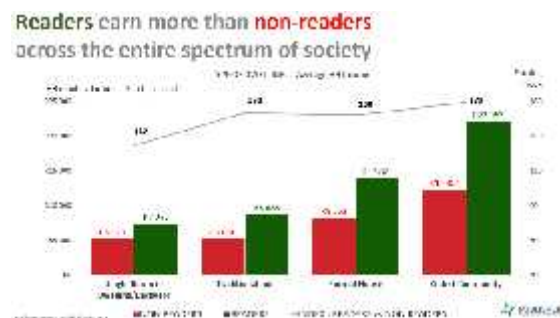
We should have done these 20 years ago, but we were complacent, and stuck in the single annual AMPS currency rut. Out of this terrible "reach threat", came a series of great "quality opportunities." As the name suggests, READ was an acronym for the 4 pillars of our strategy and programme. We utilised multiple research methods and research suppliers.

RICH – Desk Research on the ES

We couldn't focus on the numbers or the time spent reading, so we had to look elsewhere for a USP. We used the famous David Ogilvy quote as our mantra: "Don't count the people you reach...Reach the people that count!"

South Africa is the most inequitable country in the world. We pushed this and highlighted the Gini-co-efficient as well as the Palma ratio (income share of top 10% vs. bottom 40%). The bottom 20% of the population have less than 4% of the income and hence AdSpend.

Every media planner and client reads, but most South Africans haven't read a newspaper or magazine in the past month, so using apartheid type nomenclature we created and us and them scenario, creating two groups, **readers and non-readers**. We showed that the vast majority of radio's increased reach over newspapers, magazines and online read media was amongst the extremely poor, thereby attempting to largely nullify it.



But we were not just pushing "Rich" as in purely monetary rich, although the figures showed this. The graph on the left was very powerful in that it showed that from the poorest members of society in single rooms and huts to the top end of society in upmarket golfing estates, those that read earn around 60% more than their peers. Reading is a state of mind as well as of wallet, and do they read cos they're rich or are they rich cos they are well read and enlightened.?

Given our evil heritage in South Africa of 300 years of colonialism, 50 years of apartheid and 8 years of corruption, we had to be careful of referring to "Rich" simply in the monetary sense.

So we deliberately broadened the meaning of Rich:
 Our readers are ...
 Rich in Knowledge
 Rich in Experience and Education
 Rich in Friends and Influence
 Rich in opinion leaders and early adopters.
 In fact, they have plentiful quantities of all things advertisers desire.

ENGAGED - Primary Research conducted by TNS Kantar

We briefed every research company, both large and small in SA to propose a study that would prove that the quality of a written impact was superior to that of other transitory media.
 TNS Kantar won the pitch, with questions that were largely driven from a variety of studies done overseas. The chief informant of the questions was work done by BMRB in the UK in 2008 – which sought to develop a cross-media engagement framework.
 This study, based on a random suburb sample of 2000 metro adults, unearthed a treasure trove of “inherent strengths of reading” arguments.

6 clear strands of engagement formed the architecture of this framework:

1. Relevance
2. Trust in the specific media vehicle
3. Mindset and attention given to the medium
4. The medium fulfils a need state
5. The advertising is perceived by consumers to be an integral part of the media experience
6. The medium prompts action

We also created a new segment called influencers, based on social standing and sharing and this will be developed further over time.
 The survey included both attitudinal as well as behavioural variables, into both the medium and the advertising – complemented by full demographics.

Behaviour

Topic	Dimensions
Media consumption	Frequency of consuming media
Media attention	Time spent on media
Quality of attention	Other activities usually doing
Information source	Media used for different types of information

Attitudinal perceptions

Topic	Dimensions
Satisfaction	Overall rating
Depth of information	Deeper understanding rating
Media positioning	Media associations
Media positioning	Advertising associations

The “killer slides” and the ones that the salespeople use the most, were those that related to quality of attention. These are shown below and clearly show how in the case of reading, it is difficult to perform any other tasks, wear as with radio and outdoor 78% of consumers are doing something else.

Quality of attention: Focused time spent consuming media

Consumers who consume written reading are more engaged than when doing other things.
 Over 50% of newspaper and magazine readers are focused on their reading.
 Less than 1/3 of radio or outdoor users are focused on their media and the message.

	Print	Radio	TV	Outdoor	Mobile
Not doing anything else	52	60	37	24	13
Doing something	27	27	21	27	41
Reading or watching TV	13	13	11	4	4
Listening to music	11	13	11	4	4
Skimming	1	3	16	27	22
Texting or e-mailing	7	5	2	1	25
Activities done while consuming media	2	4	2	2	41
According to other media	1	1	1	1	1
Using mobile phone	1	3	16	2	11
Watching TV	2	2	10	2	14
Doing other things	13	13	13	14	11

What this means for the reading narrative?

Print media can deliver a more focused, more engaged, and more attentive audience than other media.

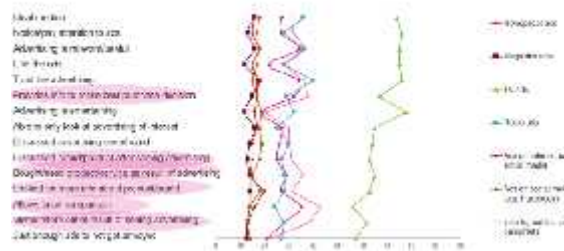


So, the quality of attention and hence an impact, and subsequent recall, cannot be equal between print and radio or outdoor.

Much of the data and the perceptual maps showed how Radio and TV dominated the entertainment side of the main axis while print was at the opposing information sector.

When we launched the PRC in 2016 we followed one of the oldest strategies in the book, namely to position our medium as the perfect foil to be used in conjunction with the market leader TV, which garners almost 60% of AdSpend in South Africa. It was just as well because TV performed very well in this study and in many measurements, it was head and shoulders above the rest.

Advertising Attributes Association: Performance



The strength of TV, is highlighted in the slide above, but most interesting was the strength of newspaper ads and inserts in the areas of price comparisons, looking for more information, store visits. In all areas of providing more information to make the best purchase decision. So, print came into its own once consumers had decided what to buy and where then looking for the best price and location to buy it. We dusted off the old purchase funnel slide and re-named it the more 2017 sounding purchase journey.



We then pushed the fact that both TV and Radio can only perform the initial awareness / entertainment function; why would an advertiser then have 2 media types that performed the same role! All reading media, news, mags and online were best used in conjunction with TV when consumers were seeking more detailed information when they were in the consideration phase further along the purchase journey.

We then built on this with our next analysis which delved deeper into media synergy with TV.

ACTION – Media Synergy Analyses based on Nielsen AdSpend data and GfK scanner panel purchases.

We wanted case studies with empirical evidence based on actual media plans and sales that proved that advertisers who had used media synergy (especially print) vs. TV only or TV and radio, increased their advertising ROI. We conducted the analysis for 6 months from May to Oct 2016.

- PRC supplied GfK with Adex advertising spend
- Recording spend total by month
- By main media type – TV, Radio, Print
- For all advertised brands in the Food, Personal Care and Beverages Adex product groups

GfK Consumer Panel is in all 9 Provinces of SA, LSM 4 – 10, Urban and Rural HH's, scanning all household purchases made on a day to day basis. 3,000 Households with either a cell phone or internet connection using demographic profiles from AMPS 2015

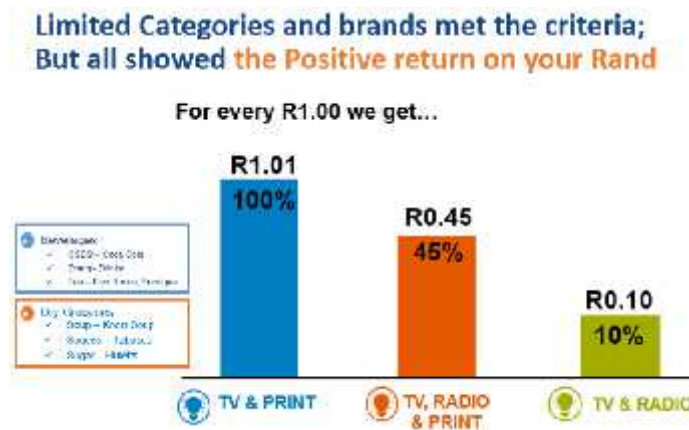
and Stats SA annual mid-year population estimates fully representing 13.1 million South African Households. There were media usage questions on the panel including whether panelists read print or not. Technology is scanners placed in Panelist homes and Quality checked through stringent Global standards

Multiple Regression was used to measure the relationship between **volume** of advertising by media type as represented by advertising spend in Rands, and **value** of purchases of advertised brands by panel members who were users of that media type, and therefore assumed to have had the opportunity to see/hear that advertising.

No background or controlling variables such as demographic measures, loyalty to the brand, category usage, etc. were used in this analysis. Allowing the constant of the regression equation and the residual of the r^2 to account for all such background influencers of brand spend. This analysis was only intended to measure the relative effects of different advertising strategies and especially the effect of including print advertising in the strategy;

Unfortunately, because this was FMCG purchases, there were very limited categories and brands that had enough print spend to qualify. In addition, there were other strict category/ product selection qualifying criteria

- Read YES /No
- Product monthly penetration greater than 4% in panel data
- Total media AdSpend greater than R100k
- Significant variance in the data. I.e. print need to be used and switched on and off during the 6 months so that the sales increase or decrease could be ascribed to it.
- TV baseline: For the purposes of this study TV formed the baseline of the assessment. Print and Radio were measured in conjunction with TV advertising, which takes the lion's share of AdSpend in all FMCG categories.



Although only 6 categories met all the necessary criteria, results in these were positive. Synergy delivers a better ROI than TV only and TV in conjunction with print works way better than TV does with radio.

DEPTH – Multiple reading occasions halves print’s CPT

One of Print greatest strengths, and one which had not been marketed in SA for over 30 years, was multiple pick-ups. Print is the only medium where rate cards are based on one OTS (Opportunity to See) per reader, while our research consistently proves that the same issue of a publication has multiple reading occasions by the same reader. This results in additional opportunities to see an advert, which is usually around two. These multiple OTS effectively halve print’s Cost Per Thousand (CPT) compared to broadcast and other media.

In both the TNS Media Engagement study and a BrandMapp 27,000 upmarket online study we asked a close ended question on multiple reading occasions:

When it comes to reading the following types of newspapers/ magazines
Roughly how many times do you pick up and read/page through a single copy?

Once 2 to 3 times 4 times or more

As seen in the table below, these multiple reads translate into page/advert OTS which increases amongst the older, more affluent, more influential consumers. SEM's are Socio Economic Measure – A lifestyle indicator ranging from the poorest SEM 1 to the richest SEM 10.

OPPORTUNITY TO SEE BY SEGMENT

KANTAR TNS ₁ <small>Media Use Study April 2012</small>	Total	AGE				SEM			Influencer	
		15-24 years	25-34 years	35-49 years	50+ years	SEM 1-5	SEM 6-7	SEM 8-10	Non-Influencer	Influencer
DAILY NEWSPAPERS	1,9	1,6	1,9	2,0	2,3	1,9	1,8	2,0	1,8	2,2
WEEKEND NEWSPAPERS	1,6	1,4	1,4	1,5	1,8	1,4	1,4	1,4	1,5	1,7
MONTHLY MAGS	1,8	1,8	1,8	1,8	1,9	1,7	1,8	1,9	1,7	2,1
WEEKLY MAGS	1,8	1,4	1,8	1,7	1,4	1,5	1,7	1,4	1,8	2,0

Using the principle of consilience, we showed that these OTS figures matched the BrandMapp study almost perfectly. This gave us confidence to release these figures to the industry. We have subsequently included this question on both our currency surveys. This allows us to apply the OTS data to media planning calculations to get to a more accurate CPT for print versions of newspapers and magazines. By using these multiple pick-ups by segment and type of publication, they can now be applied to media plans aimed at broad segments.

An advertising budget divided by each medium's CPT will deliver that medium's GRP's (Gross Rating Points), a media weight measure (reach x frequency). According to IBIS media manager the CPT for newspapers is R117 and R103 for magazines, when we take these multiple OTS into account it effectively halves the CPT as shown in the table below:

MULTIPLE OTS REDUCE PRINT CPT

ALL ADULTS	NEW RATINGS CPT		
	C.P.T.	MULTIPLE OTS	C.P.T.
MAGAZINES	R103	1,80	R57
NEWSPAPER	R117	1,72	R68

Let's take a budget figure of say R100,000 and see how many ratings we could achieve with each medium based on its CPT. Outdoor, having the lowest CPT, delivers the most ratings (GRP's) for the same budget.

We also must consider the inherent strengths and communication ability of each medium relative to one another. We summarise this in terms of a simple impact figure. All media types are rated relative to the most impactful medium – cinema, which has a captive, front facing audience in a dark cinema with a 20m screen and Dolby stereo sound.

FROM CPT TO GRP'S TO ERP'S

PUBLISHER RESOURCES AND RESPONSIBILITIES		MEDIA COMPARISON CALCULATOR [®]		
BUDGET	R 100 000	TARGET: ALL ADULTS		
MEDIUM	C.P.T.	GRP'S	IMPACT	ERP'S
CINEMA	R 702	142	1,00	142
INTERNET	R 120	832	0,60	499
MAGAZINES	R 57	1 754	0,55	965
NEWSPAPER	R 68	1 471	0,55	809
OUTDOOR	R 43	2 326	0,18	419
RADIO	R 56	1 800	0,25	450
TELEVISION	R 62	1 616	0,85	1 373

Once this impact factor is applied we're able to, more effectively, compare each medium's Effective Rating Points or ERP's. Television emerges as the most powerful medium while magazines and newspapers take the other two podium positions and deliver almost twice the effective audience numbers compared to radio and outdoor.

This dominance over our two primary competitors Radio and Outdoor, was even more pronounced in upper SEM markets, where our audiences are relatively larger and the OTS figure was higher. The PRC licenced this Media Comparison Calculator from media strategy consultants.

The Media Comparison Calculator attempts to go beyond the numbers and PRC members are supplying the calculator to all clients and agencies so that they can apply it to any target market.

Our CURRENCY (Quantity) Research Programme

PAMS – Publisher Audience Measurement Survey F2F Currency Research conducted by Nielsen.

We began our search for best reading research practice worldwide in October 2016 after the RFP and tender process was complete. It was invigorating to be controlling our own destiny and to have no legacies and a clean sheet of paper. Nielsen scoured all their world-wide offices for innovative methodologies that had worked successfully elsewhere. Here is a summary of what we included:

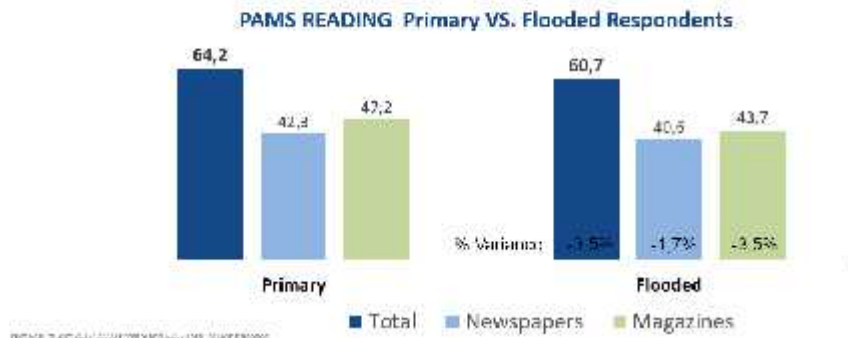
1. Household Flooding.

While flooding is often used in radio diaries, we could not find an example of it being used anywhere in the world for reading. The PRC had proposed this in our RFP, and Nielsen agreed on the principle, so as far as we are aware we are the first flooded F2F reading survey world-wide. We have a sample of 10,000 households and we are achieving a flooded ratio of 1,8 which will result in 18,000 respondents. Flooded respondents are randomly selected from adults in the household at the time of the primary interview.

Our member publisher's revenue is declining sharply, as income from lost print circulation is not made up by the digital audience. Flooding has been the primary contributor to the PRC **saving over 60%** of the cost per interview that we paid in 2015 for our AMPS currency. PAMS is still in field, but results from the initial 5,367 interviews are very encouraging.

Flooding Households

PAMS INTERVIEWS Cost us **34%** of what we paid in 2015 per AMPS interview ☺



As can be seen, flooded respondent reading is slightly below primary respondents. It is early days but both ourselves and Nielsen are confident that our pioneering flooding sample has been a success.

2. CASI Self-interview technique for up-front selection of titles

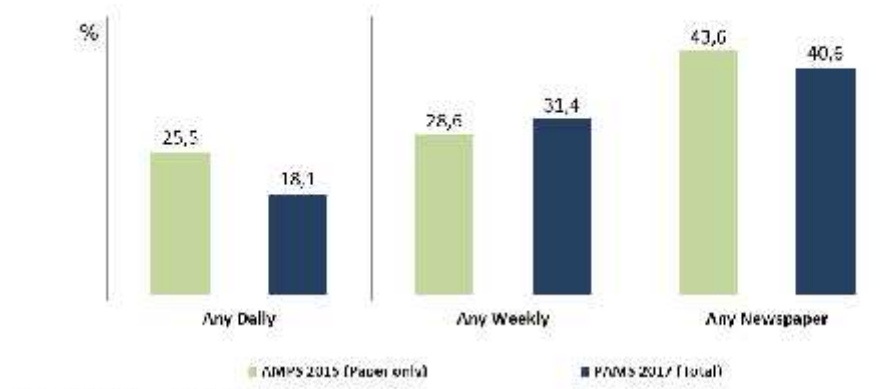
Part of our brief to Nielsen was to reduce the RPC readers per copy) that we had on AMPS. In AMPS the interviewer read out all 158 titles out to respondents. This was demeaning for bottom end respondents who did not read many, if any, titles – much like an oral exam where one does not know any of the answers. When a familiar, vernacular title was mentioned respondents “jumped” at it, this resulted in some bottom end titles having more than 30 RPC!

Nielsen proposed an elegant solution. In PAMS the interviewer hands the tablet to the respondent who then self-selects the titles in private at their own pace. While there are many other innovations and changes we have made, we believe that this is the primary

one that has reduced and levelled our reading levels. This self-selection also saves considerable time when one considers that we are researching over 150 titles and websites. While PAMS should not be compared with AMPS, planners and clients invariably will, so we have preceded them with a comparison from the initial 5, 367 respondent pilot.

CASI – Respondent self-selects titles on tablet

SAVING TIME and significantly reducing RESPONDENT ANXIETY



3. Brand First Approach

We followed the brand rather than platform first approach and measured both paper and online formats. This was successfully used in the Netherlands, and appears to be working well for the individual platform and total results from our initial pilot

4. Only 4 Titles per Screen




We feel that this has made it easier for respondents to select titles. Both the paper and the online names are listed side by side. Titles are grouped into families and mastheads are rotated on each page as well as all pages being rotated.

5. AIR – based on Recency – not FRIPI

In AMPS we used FRIPI (First reading within Issue Period) to reduce RPC. In PAMS we revert to standard recency.

6. Visual, Publishing interval Frequency Scales introduced

In AMPS we used to have a standard 6 issue frequency scale for magazines, in PAMS we have introduced multiple visual, publishing interval frequency scales for newspapers and magazines, for example weekly magazines are on a 4-week monthly scale and monthlies on a 12-issue annual scale. The computer bureau simply adapt the frequency formula by these varying scales for their reach calculations. The visual scale also simplifies mental calculations for respondents


 1 2 3 4 5 6 7 8 9 10 11 12
 January February March April May June July August September October November December
 Year
 NUMBER OF ISSUES OUT OF 12:
 10

7. Definition of reading changed to include “for 1 minute or longer”,

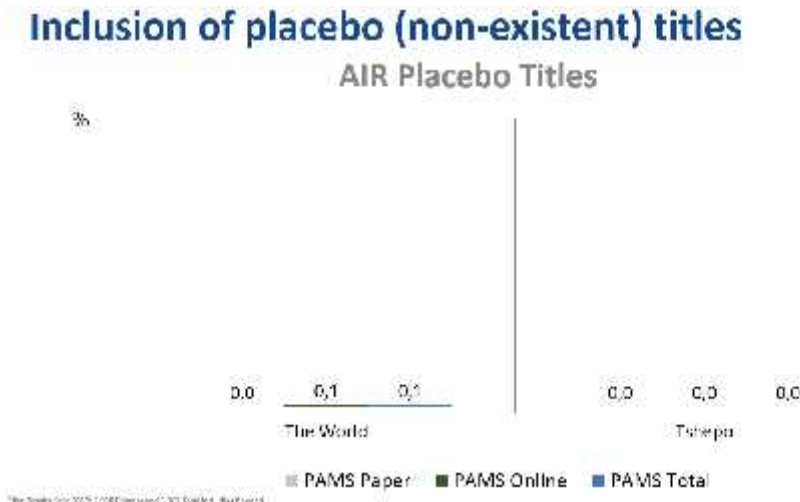
We included this time caveat in our definition in line with that used in Australia and New Zealand.

8. Topics / Interest questions for both Newspapers and Magazines –

PAMS introduces a topics/ interest’s question, we are testing this and hope to use it to enable personalised media filters in future PAMS surveys.

9. Inclusion of placebo (non-existent) titles

We included a non-existent weekly magazine called Tshepo and a daily newspaper called The World. (this title was in existence until 1974). Our supposition was that the halo effect resulting in overclaim was more pronounced at the bottom end of society. We wanted to measure the extent of overclaim across the spectrum of society, and then introduce an algorithm to reduce overclaim in a step-wise manner from top to bottom. Here are the results from the pilot.



All us media researchers can justify our existence! Not one respondent claimed to have read a paper copy of either title. Only 1 in 1000 people claimed to read the online version of the world. We believe this is respondent confusion, with “online world news”. This question has had the unexpected benefit of giving not only our reading currency but all PAMS great credibility.

10. Multiple pick-ups

We have included the multiple pick-up of the same issue by the same reader question.

11. Brands and products

The top seven categories account for 85% of AdSpend, we have included these to enable better target marketing and to allow us to fuse our survey more accurately with FMCG scanner panels and financial and other panels/ surveys.

PRC PANEL – Building South Africa’s first “near” random online panel

When it comes to online surveys and panels, random sampling principles are conveniently and completely forgotten, expediency rules, as cost savings and technology dominate.

In terms of readership research, face-to-face has traditionally been seen as the Gold Standard. But just like democracy, it’s the best we’ve got, but it’s far from perfect.

Our starting point in designing our panel was to examine how we could make our mobile panel as representative and random as possible. In addition we wanted to ascertain how mobile panels can **complement, correct and balance** the inherent bias in F2F samples. We conducted a complete audit of all available databases, Geocoded Household registers, and other available resources

that would enable us to build this panel from the ground up, using the best partners, practices and tools. The two primary suppliers came from outside of the research industry.

The Geo-Coded Household Register

The first supplier we have engaged with is called Fernridge. Using latest available aerial photography / Google Earth they have geocoded and classified every single household in all metros, cities and towns. They use this, in conjunction with category expenditure surveys to develop models for retail development. This includes shopping centres, stores, ideal tenant mixes, drive time analysis and more. This register is now more than 9,4M households, and is in fact a “census” of all urban households in SA. This register is 11% bigger and far more detailed than anything in the research industry. In this case the Nielsen Geo-frame.

1. Each HH is assigned a unique number
2. Each HH is assigned lat and long co-ordinates
3. Every HH is colour coded based on the size of the house and property into 1 of 7 income bands.
4. Each HH is Assigned a Household Type.
5. Gated communities, e.g. golf estates, retirement villages are also captured.



Conducting a F2F Survey Income and HH type profile or Audit.

Our hypothesis was that F2F surveys under read upmarket, richer households where time is money, they also struggle to be representative of flats and townhouse/ cluster developments that have security controlled entrances as well as gated/ boomed communities. Research companies will always say they have ways of accessing these “hard to reach” households, but if this were truly the case, then why is the substitution rate approaching 60% in metro areas?

We have traditionally monitored and rim weighted our samples on demographic census data like age, gender, province, city and say ethnicity. But now for the first time we can audit and profile the F2F samples against these other crucial metrics that are known weaknesses of F2F surveys.

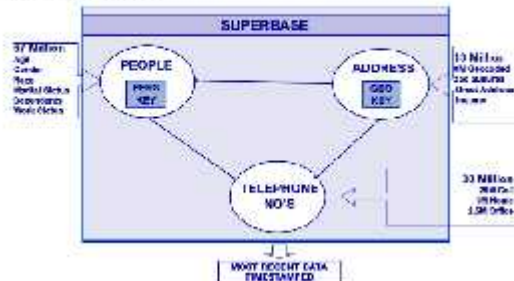
We have just commissioned an analysis of the entire Fernridge 9M urban HH’s to count and profile the number of households by income and in terms of the percentage in flats, and town houses / clusters as well as gated communities.

We are then going to profile F2F surveys and where we own them, like the ES, conduct a full audit to compare both the total count and profile of households by income and household type and gated community. This is particularly important for publishers since our readers are generally 60% more upmarket (richer) than non-readers who vegetate at home on the couch watching the telly. So this F2F bias gives publisher audiences a double whammy, cos they are under read and we are over represented in these secure penthouses, and upmarket secure complexes and golf estates.

A Database linking People, Places and Phones

The Database Structure

PEOPLE, PLACES, PHONES



In discussions with credit bureaux, banks and retailers we discovered a company, that we shall call Superbase. They conduct work for all the foregoing as well as the government and the police services. This database of 67 million South Africans (11 million dead), is linked to addresses as well as telephone numbers. Apart from buying prospective panelist data, if we have a cell number from any database or competition or subscriber or facebook or any source we can then reverse these onto a map.

We now have all the pieces in place to conduct the final step in making our online panel work in perfect unison with our F2F PAMS survey, together these two will form the most representative, balanced sample we are able to produce.

Building more random online panels to complement and balance F2F – Introducing RGS (Reverse Geographic Sampling)

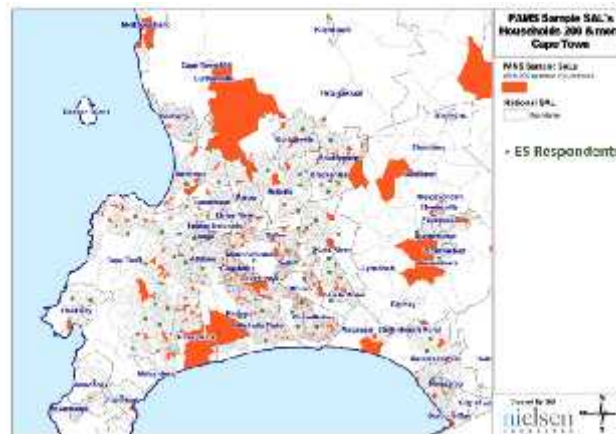
1. Removing professional panelists

All our members run their own panels for editorial and other purposes. Before we accept any person onto our panel we de-dupe them against our member panelists to remove all “professional panelists.” These people are “in it for the money” and completely bias all panels. Over time we want to broaden this screening process to include other research houses and panels.

2. Identify and Map the PAMS F2F Currency Sample

As seen in the map below of Cape Town, Nielsen supply us with all the SAL ‘s (Small Area Layers) where the 2 clustered PAMS interviews took place. The SAL is based on the enumerator area, which comprises of 200 HH and is the smallest unit of census data. We identify these 5,000 odd of the total 86,000 SAL’s , these are shown in orange in the map below, and are flagged in the recruitment database of our research partners contact centre.

PRINCIPLES OF REVERSE GEOGRAPHIC SAMPLING



3. Identify ES respondents that will form the core of the PRC Online Panel

63% of the 25,000 annual ES respondents forgo the Esomar confidentiality and state that they are prepared to be part of an online or TV panel. These are true random probability respondents. TNS pass these respondents and their details over to us. We flag any respondents who fall within the PAMS SAL’s and do not contact them this year. Of the remainder, we only recruit a maximum of two from the original cluster of four ES respondents. *Although we have all grown up with F2F cluster sampling, when one sees 4 clustered interviews on a map, vs. our geographic spread methods as outlined below, one realises that this clustering when there are vast swathes of a city left uncovered is a real drawback of F2F research.*

4. Reverse Geographic Sampling – Spread, Income, HH type and secure balancing.

Whether these panel prospects come from Superbase or online or Facebook the principle of reversing them onto the map remains the same, we use their telephone number to place them into the map and an income group and HH Type and community.

Spread - Prospects must be at least 350m from existing panelist or PAMS SAL. (This varies based on the community density)

HH Type - Based on the results of the audit we over recruit flats, clusters based on the profile of that metro.

Gated communities. – As per HH type we will over or under recruit so that the combined PANEL and PAMS sample matches the ferridge “census” profile of that area.

Our objective is simple, our combined F2F and Online currency sample will match the universe in all the traditional demographic variables, but now it will have additional metrics and be geographically spread as well as matching HH types and communities.

It is in these secure, hard to interview seams, that rich deposits of our readers live.

Like gold, they have been hidden and hard to mine until now.