QUALITY RATING POINT – THE NEW CURRENCY

Morten Kromann-Larsen & Rolf Randrup, Taylor Nelson Sofres/Gallup

Synopsis

This paper is a direct extension of previous papers presented to the Worldwide Readership Research Symposium in l997 and 1999 about developing The Danish National Readership Survey into a more dynamic instrument. The background for this development is the need among print media to meet the competition of TV channels that are able to supply much more detailed and updated information for media planning purposes, pricing and space buying procedures. In comparison to TV's Gross Rating Points the traditional print media measurement of average issue readership based typically on historic data collected during 6 or 12 months needs more than just a facelift. It is a general feeling among media planners that print media loses grounds to TV as a result of lack of documentation and planning tools.

In order to change the trend from print to TV some measures were taken within the measurement of newspapers within The National Readership Survey, Index Danmark/Gallup:

> 1) Measuring newspaper section audience
> 2) Measuring frequency of section readership and integrate it in the NRS
> 3) Change the reporting period from quarterly 6 months periods to monthly readership figures.
> 4) Introduce QRP, Qualitative Rating Points, a new currency for buying and selling advertising space using data on readership by month, weekday, section and editorial content,

This process took ten years from the first initial step, an operational method of measuring section readership without disturbing the Average Issue Readership, to a system used in real life when buying advertising space.

1. Measuring newspaper section audience

In Denmark all major newspapers and all Sunday newspapers are divided into sections. As far as regular sections are concerned they are independent units with their own separate audience and separate profile. This development creates a new situation within media planning turning the focus away from the traditional AIR figure and towards readership figures of each section as a planning unit. The challenge to media research is not to measure section audience itself, which is a rather simple process, but to supply information on section readership that meets the requirements of media planning procedures, i.e. frequency of reading measured within the NRS allowing calculation of accumulation and combinations.

Frequency questions for the sections appear to be problematic. They might work for large, well-known and frequent sections, which have their own titles. For other sections extreme overestimation occurs. Consequently it is necessary to investigate which variables discriminate section reading most effectively. When these variables are defined they will be included in separate continuous surveys, which measure section reading and in the NRS survey which carry information on reading frequency of the newspaper as one unit. Finally reading probabilities of all sections will be calculated and transferred to the NRS. The principles are described in the (Arnaa/Randrup 1997). The further development and practical application are described in (Arnaa/Mortensen, 1999). By means of CHAID-analyses information from a separate survey on section readership are transferred to the NRS, Index Danmark/Gallup. As this survey contains a single source connection to a comprehensive target group index and the transference of the calculation of readership probabilities of all major sections the database allows for media schedule planning within almost any target group.

2. Product development of The National Readership Survey

Although these activities were significant steps in order to meet the requirement from the market to deliver more relevant and detailed information on print media it stilled lacked the richness of information offered by the TV channels. It still lacked behind the topicality and precision contained in the concept of TV's gross rating points.

Regarding topicality it was necessary to update the reporting interval of the NRS turning the audience figures from historic data into data reflecting the current situation. Regarding the content of the information on exposure, not only of each section but also page by page, was required. The final aim was a model incorporating all components into an operational tool of media planning, Quality Rating Point.

This model contains the following components:

> NRS figures
> Audience figures split by weekday and month
> Reading behaviour page by page within sections

It follows that the model is a challenge to a traditional NRS and to the ability of transferring separate page traffic surveys into the NRS and finally prepare it for media planning procedures.

3. Monthly audience figures

Recent years show a tendency towards a more dynamic print media market with violent circulation fluctuations over time and within weekdays. This forces the NRS to reflect this development and record audiences under different conditions.

In Denmark print media audience is calculated by means of reading frequency questions in combination with recency questions. The recency questions are used when applying reading probabilities to the frequency cells before calculating coverage as a weighted average. The data are updated every quarter but always based on 6 months periods.

There are many good reasons for the choice of frequency questions but it cannot be denied, that reading frequency tends to reflect the normal reading behaviour more than the current situation. Consequently this method it not suitable for measuring updated readership audiences month by month. The monthly figures have to be based on recency questions. However, it obviously creates a problem of credibility to measure monthly figures by means of recency and 6 months figures by means of frequency because the two methods produce figures on different levels. On average the "official" audience figure for newspapers is 10% higher than the corresponding audience figure based on recency. This fact, however, makes it possible to measure monthly readership by means of recency but adjust the figures for the methodological differences. This example illustrate the procedure:

"Official" AIR based on frequency, 2nd half year 2000	450.000
AIR based on recency, 2nd half year 2000	470.000
AIR based on recency, January 2001	485.000
Adjusted "official" AIR, January 2001 $\frac{450.000 \times 485.000}{470.000}$ =	464.000

Consequently the monthly is defined as changes of the "official" AIR and in this way two readership figures that differ from methodological reasons are avoided.

Table 1: Monthly readership figures of major Danish newspapers in thousands								
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Average**	**Official 1.h 01**
B.T.	460	461	513	517	562	545	510	508
Berlingske Tidende	538	469	510	492	493	467	495	490
Borsen	252	228	258	208	230	219	233	225
Ekstra Bladet	472	508	472	467	529	499	491	475
Jyllands-Posten	772	726	773	709	734	708	737	747
Politiken	575	545	524	565	575	555	557	548
Source: Index Denmark/Gallup first half year 2001								

Table 1 shows the monthly readership figures of major Danish newspapers from January to June 2001 together with an average of these figures and the corresponding "official" audience figure of the same period. It appears that the two set of data tie in despite the fact that they are based on two different methods. Further it appears that readership figures collected over a longer period of time hide important short-term fluctuations. AIR-figures are often delayed compared to developments of circulation, whereas the monthly AIR figures are better suited for reflecting the present situation. Even if some of these fluctuations can be derived from sample errors a distinct pattern appears. A drop of audience figures is clearly recorded during holiday periods primarily for papers with a high readership at work.

4. Audience figures on weekdays

From the newspapers' point of view the ideal weapon against the TC channels would be a "print peoplemeter" recording readership every day. This is too ambitious within the techniques that are available to day. As demonstrated it is possible to meet the requirements of topicality by producing monthly audience figures. When it comes to readership by weekdays this is possible as well but not within every month. We have to use data from 6 months periods and break down the data on single weekdays. This is a simple procedure. However it requires a very careful sample technique and fieldwork execution securing a complete, representative sample for each weekday. Still this solution is not satisfactory as it reflects the normal behaviour and not the current reading. However, it makes sense to assume that the distribution on weekdays is rather stable, for which reason this pattern can be transferred to the monthly audience figures.

The efforts described are included in the new 3-year agreement of the NRS together with a TGI in Denmark. It is accompanied by a strengthening of the sample procedures including an enlargement of the fieldwork to 36.000 interviews a year and a stratification procedure resulting in more than 250 districts every month.

5. Data collection to Quality Rating Point

The remaining component of the QRP formula is readership of the editorial content page by page. This part is carried out by means of a large-scale page traffic study comprising no less than 20.000 interviews. The fieldwork took place during a period from October 2000 to February 2001, and all together 14 newspapers participated in the project. The number of interviews for each paper was fixed to 2000 for the bigger national papers and 1000 for the regional papers. The data collection for each paper was extended to at least 8 weeks and interviews equally distributed throughout all weekdays.

The method of data collection was crucial to this project because it requires new questionnaires every day including a full description of editorial content. This requirement excluded face-to-face interviewing that normally would be an appropriate method. The only possible way of conducting the fieldwork under extreme pressure of time and flexibility is the CATI procedure. It was tested in 1998 for the Danish newspaper Politiken, who is the promoter of the initial QRP-concept. This test cleared the way for the large-scale page fieldwork based on telephone interviews with readers in private homes and who have the newspaper that they recently have read at home

This method has, admittedly, some disadvantages. It excludes readers who no longer are in possession of the paper and readers who are out-of-home readers. On an average app. 15% of the newspaper readership takes place outside the home, typically at working places. For business papers and tabloids the proportion is significantly higher. By means of information on demographic profiles of in-home and out-of-homes readers it is possible, within certain limits, to correct the page traffic sample by means of weighting procedures. However this solution is not satisfactory and future waves of QRP surveys will most likely include interviewing at work.

The samples for the regional newspapers are based on subscription lists as subscribers make up app. 90% of the circulation. For the national newspapers a random sample of the population is applied including a screening procedure of readers of the papers in question. This is a reasonable solution because the net coverage of the participating papers is more than 50%, which means that the probability of reaching a respondent at random is more than 50%. This makes heavy demands on the CATI software because it is necessary to have on screen information about editorial content page by page of all participating newspapers.

Basically the page traffic interview contains following recording page by page:

> Page not seen
> Seen or glanced at the page
> Read part of the page
> Read all or almost all of the page

6. Data processing and reporting

The overall objective of the QRP survey is to establish readership figures for individual pages or groups of pages rather than overall readership figure for each daily itself. From a principal point of view this task is rather simple, but in the practical world experience shows that data processing and reporting of QRP data is a highly complicated process. The complexity is not only connected with the huge amount of data available, but also to the fact that a whole range of qualitative aspects must be taken into account along the steps from initial data processing to final reporting.

Basic rules of calculation

The basic rules of calculation are rather straight forward. All data are initially weighted according to profile in NRS (sex and age). For each daily number of readers are calculated for each page excluding only classified and sections which are not issued on a regular basis or not distributed in full circulation. Once these calculations are done data are transposed from a respondent oriented database into a page oriented database. The basis of further calculations is now pages or groups of pages rather than

respondents. An overall reading percentage for all pages included in the survey is calculated for each daily and subsequently reading percentages for any group of pages are calculated and indexed according to the overall reading of all pages. In combination with other audience measurements these indexes are referred to as Quality Rating Points and they will constitute the currency of the commercial Danish print market in the future.

But what defines a reader?

As described earlier the question put to each respondent for each page is not a simple Yes or No question. The information about reading of each page ranges from "having read all or almost all of page" at the high level of the scale to "having seen or glanced at the page" at the lower level of the scale. Naturally "not seen the page at all" is the lowest level of the scale, and this information clearly stipulates a non-reader.

Table 2: Reading of pages in 3 Danish dailies split by sections and level of reading		*A*		*B*		*C*	
		%	*Index*	*%*	*Index*	*%*	*Index*
News Sections	Total reading	74	100	75	100	76	100
	Seen or glanced page	32	44	36	48	33	43
	Read part of page	28	38	24	32	28	37
	Read all or almost all of page	14	18	15	20	15	20
All sections	Total reading	52	100	56	100	54	100
	Seen or glanced page	25	47	27	48	26	49
	Read part of page	17	33	17	30	17	31
	Read all or almost all of page	10	20	12	22	11	20
Source: The Danish QRP-survey 2000-2001 / TNS Gallup Denmark							

Table 2 illustrates a breakdown of total reading for news sections and all sections for three national Danish dailies. It is clear that the total reading of approximately 75% in news sections mainly consist of reading from the low level of the scale. "Seen or glanced page" contributes with almost 50% of total reading and at the other end of the scale "Read all of page" only contributes with approximately 20%. The pattern is almost identical from one paper to another and the phenomenon is not limited to the news sections only. Obviously all sections represents a lower level of total reading but the distribution on reading level is very much similar to what is found in the news sections.

Along with the principles of opportunity to see (OTS) one can argue that all levels of reading should be included in the definition of a reader. The page has been exposed and whether the level of reading is high or low is simply a matter whether the content of the page awakes any interest in the reader or not. This could be described as the commercial point of view because it is based on the assumption that the message - or to be more precise in the context of QRP - the advertisement has been delivered to the reader and the rest simply is up to the add itself. The consequence of this approach is relatively high level of reading of each individual page especially in the news section. From a more statistical point of view the wide definition of a reader also ensures that the final reporting is based on as many observations pr. page as possible.

If one approaches the definition of a reader from an editorial perspective the choice of reading definition is not that obvious. Actually the wide definition of a reader may even jeopardize what really is the principal purpose of this kind of survey – revealing the structural relationship between reading of particular pages on one hand and editorial content on the other. The wide definition of a reader does not discriminate between "reading everything" and "seen or glanced" and as a consequence the correlations between reading behaviour of different target groups - representing different interests - and editorial content of each page are somewhat narrowed down.

Table 3: QRP in business paper split by target groups and topic	*High interest in specific topic*	*All persons*	*Index*
Information Technology	76	60	127
Business Investment	82	77	106
Job / Career	45	35	129
Logistic	47	29	162
Private Economy	47	41	115
Source: The Danish QRP-survey 2000-2001/ TNS Gallup Denmark			

Nevertheless data still indicates a strong correlation between reading of specific editorial topics and related target groups. Table 3 shows QRP for different target groups defined by degree of interest in selected editorial topics in one of two Danish business papers. A comparison between "High interest" and "All persons" indicates that readers of this paper are clearly selective

according to their personal interests. Four out of five topics show distinct overestimation in favour of "High interest" compared to "All persons". As far as "Business investment" concerns this topic scores the highest QRP of all among "All persons" and subsequently the overestimation almost by definition tend to be smaller.

All present QRP reporting in the Danish market is based on the wide definition of a reader, but this will probably be open for discussion in the future. In our view this certainly calls for further analysis and a new approach could be a combination of the commercial and editorial approach. A new methodological approach introducing a weighting procedure, which takes into account the actual level of reading of each page, should be considered in the future.

Page performance

Table 4 expresses both the similarities and the differences between newspapers. On one hand the amount of pages being read within each group are strikingly identical and on the other hand there appears to be structural differences between the groups. This is true for news sections in particular and slightly less for all sections. News sections in national dailies scores the lowest amount of pages being read followed by tabloids and regional papers. Business papers tops the list with an average reading of approximately 85% of all pages in the news section.

| Table 4: Reading of pages split by sections and daily				
		All Sections	*News Section*	*Index for NS*
National Dailies	A	52	74	142
	B	56	75	134
	C	54	76	141
	A+B+C	**54**	**75**	**139**
Tabloids	D	65	79	122
	E	65	78	120
	D+E	**65**	**79**	**121**
Business Papers	F	66	82	124
	G	85	85	100
	F+G	**76**	**84**	**111**
Regional Papers	H	68	80	118
	I	69	80	116
	J	70	80	114
	K	56	80	143
	H+I+J+K	**66**	**80**	**122**
Source: The Danish QRP-survey 2000-2001/ TNS Gallup Denmark				

The scores in all sections and subsequently index for news sections are highly influenced by the number of sections in each paper. In general national dailies have far more sections than other papers and secondary sections displays significantly lower amount of pages being read. This is the reason why index for news sections in national dailies suddenly tops the list in comparison with the other papers.

Diagram 1 displays reading of individual pages in the news sections of three Danish national dailies. The three curves are practically identical in the first half of the section and they all show significant fluctuation in the beginning of the section. Obviously the front page is expected to top the list but reading drops dramatically on the following right hand pages. The reason for this is simply that the first right hand pages are far more dominated by full page adds than all other pages. Respondents tend to neglect recognition of pages with no editorial content and this phenomenon is closely related to how editorial content and advertisements are conceived by the reader. Further analysis of several newspapers in the QRP survey has shown that this phenomenon is only true for pages with full page adds. Reading of pages with half page adds is generally at the same level as pages solely with editorial content.

Diagram 1: News Sections in National Dailies
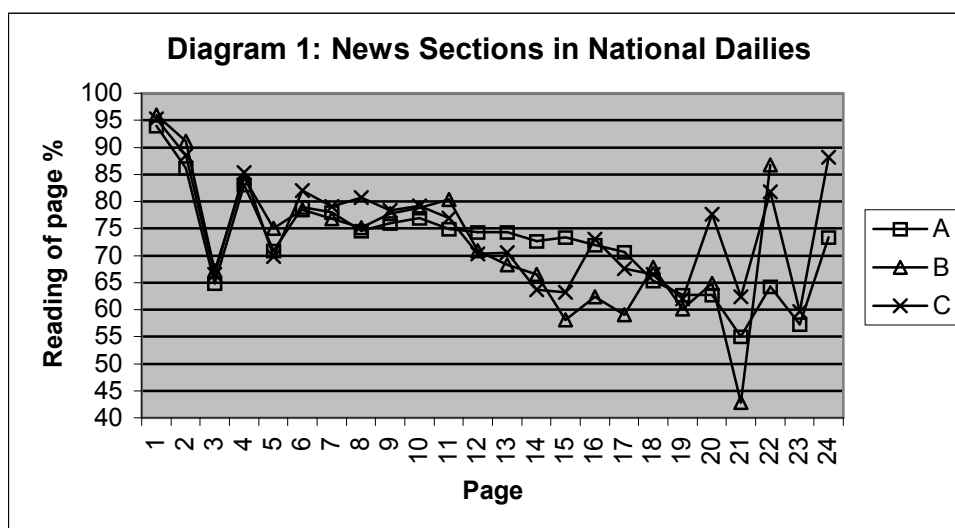
In the second half of the section the curves show considerable fluctuations. Certainly some of these fluctuations reflect different levels of reading but attention has to be drawn to the impact of number of pages in the sections. The peaks at the far end of the curve actually represent back pages of sections with variable length. Except from intensive reading of back pages and extensive reading of pages in the immediate vicinity conclusions on page performance in the second half of the section cannot be drawn with certainty.

Diagram 2 is more adequate for this purpose. Instead of actual page number on the x-axis the diagram displays data in a harmonized way. The actual page number is converted into quarters by dividing the page number with the total number of pages for each day.

Diagram 2: News Sections in National Dailies
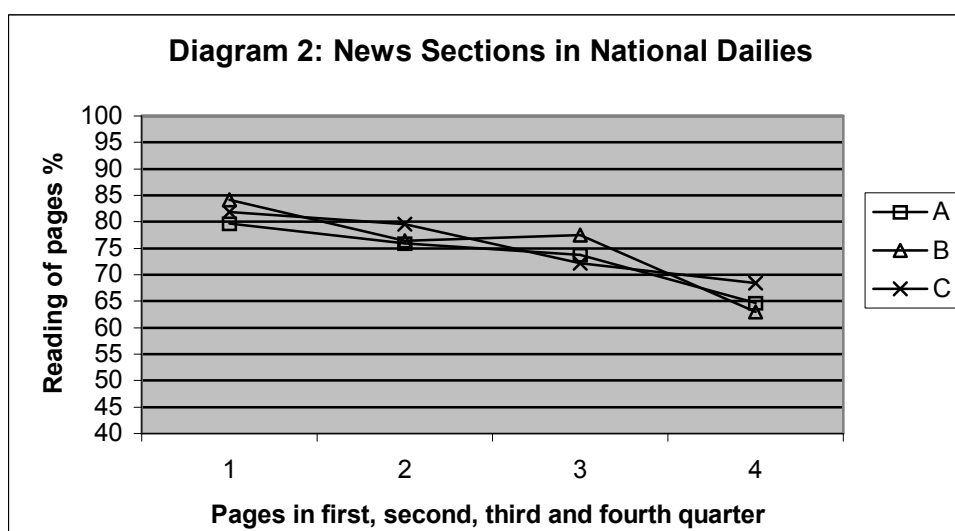
The diagram very clearly displays that page performance steadily drops throughout the section from an average score of approximately 83% in the first quarter to approximately 65% in the fourth quarter. For instance sports are often placed at the end of the news section and in general these pages only attract approximately half of the readers. Given the predominant way of reading a newspaper from page one and onwards it is somewhat to be expected that page performance will drop throughout each section.

Editorial content

It is easy to imagine the practical implications of coding approximately 60.000 individual pages according to editorial content. For obvious reasons this task is best placed in the hands of the newspaper itself simply because each newspaper is the expert on the editorial structure of their newspaper. Furthermore the coding in the context of a QRP survey is not only about coding of editorial content but actually the coding itself constitutes the brick stones of the future rate card. In the Danish QRP survey the initial coding resulted in a huge amount of specific editorial codes stretching from approximately 100 to more than 400 for each

newspaper. The initial editorial codes had to be aggregated and transformed into an operational number of codes and this task turned out to be a real challenge. On one hand the newspaper obviously needs results and reports on page performance split by editorial content, target groups, sections, placement, weekdays etc. in order to optimise the aggregation of the editorial topics and on the other hand reporting and evaluation of the massive amount of data is a task of high complexity. For commercial and technical reasons the number of aggregated editorial topics was reduced to an average of approximately 20. This outcome is a result of an iterative process of requests, reports, evaluations etc. going back and forth and the process implies a close interaction between each the newspaper and the institute.

Table 5: Reading in news sections for 3 Danish dailies split by topic

	A		B		C	
	Overall Index	*Section Index*	*Overall Index*	*Section Index*	*Overall Index*	*Section Index*
Front page	-	-	-	-	177	126
Business	-	-	-	-	138	99
Domestic	158	111	151	112	159	114
Education / Research	-	-	-	-	186	133
Foreign	-	-	-	-	-	-
International	148	104	150	111	151	108
Leading article / Debate	141	99	-	-	-	-
Names	-	-	-	-	127	91
Sports	111	78	104	77	105	75
Stock	-	-	-	-	95	68
Technology and Science	-	-	-	-	146	104
Other	127	89	122	90	-	-
Back page	145	102	-	-	164	117
News Section total	142	100	135	100	140	100
Source: The Danish QRP-survey 2000-2001/ TNS Gallup Denmark						

Looking at the final results for the news sections in three national dailies it is notable that the aggregated groupings by and large represent common overall editorial topics of any paper and therefore may have been foreseen in advance. This is only partly true because the initial specific editorial codes underlying similar headlines in many cases differ from one paper to another. For obvious commercial reasons each newspaper naturally tends to emphasize any editorial strong point when aggregating the initial editorial coding. Therefore it is imperative that full documentation on specific editorial topics underlying each headline is accessible to the market.

However it is remarkable that overall index of reading in Table 5 for similar aggregated groups of editorial content are very much the same for all three national dailies. "Domestic" and "International" and "Sports" are defined in all three papers and the overall index of reading shows only minor fluctuation. In the Section Index column each editorial topic is indexed according to the overall index of reading in the news section only. The figures indicate that the average reading of "International" in paper B is relatively higher than reading of the same topic in paper A. It is also notable that Section Indexes ranges from well below 100 to well beyond 100 and thus stressing the impact of editorial content on the level of reading. The figures also indicate that either the editorial structure of the three national papers or the overall reading habits are very much the same – or maybe even both!

7. Closing remarks

Quality Rating Points are well underway to establish themselves as the new currency on the commercial Danish print market. The concept of QRP was initially introduced to the market in 2000 by Dagbladet Politiken which is one of the three major national dailies in Denmark. Throughout 2000 intense negotiations between the most influential Danish dailies led to a decision to implement the concept in full scale. A subcommittee under The Danish Newspapers Association was established under the name of QRP.dk and decision was taken to carry out the necessary fieldwork in late 2000 and early 2001. Subsequently QRP has been introduced to a series of major newspaper advertisers and today several newspaper campaigns are planned, bought, run and evaluated according to the principles of QRP. As a parallel to the principles of TV buying advertisers even decide themselves whether campaigns should be Run by Paper or Run by Customer. Along with the introduction of QRP a web based software meeting the demands for simple campaign simulation and ordering has been launched.

So far not all components of the initial QRP formula has yet been implemented. The QRP formula of today includes page traffic information, average daily circulation figures and official audience figures from NRS. The ambition for the near future is to implement monthly readership figures into the QRP formula and next step is likely to be adding of yet another component namely audience figures on weekdays.

From the research institutes point of view the ultimate ambition of the QRP project is the integration of basic parts of the QRP data into the National Readership Survey. This will make it possible to include QRP in media planning tools applying accumulation and breakdowns on target groups. The process is planned to be carried out along the same lines as the integration of section readership, by means of CHAID analysis (Chi-square Automatic Interaction Detection). It requires a set of identical key variables best suited to discriminate in NRS and the Page Traffic surveys. These variables are reading frequency, time spent on reading, means of purchase, selection of primary paper and demographics.

All these ambitions are themselves major challenges for the media research institute and the challenges seem even bigger considering the direct link now established between print research on one hand and the vast amount of money changing hands every day on newspaper campaigns on the other.