

# NEW LEARNINGS FROM SPECIFIC ISSUE READERSHIP: ACCUMULATION OF READERSHIP AND CALCULATION OF AVERAGE ISSUE READERSHIP

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## Summary

Specific Issue Readership has been used in the Dutch national readership survey NOM Print Monitor (NPM) since 2006 in order to measure Average Issue Readership of magazines. But SIR is not only used for calculating AIR; it also brings more granulated readership data, which can be used to monitor title specific accumulation patterns, creating validated input for time-related campaign planning. This new type of data changed the traditional approach to time planning for magazines. The information on the accumulation of readership was further used as the basis for an optimization of the method of calculating AIR from the SIR data. The new method uses the richness of the SIR data more than the old method and at the same time solves the possible method effects.

## Introduction

NOM Print Monitor, the Dutch national readership survey, changed the method of measuring Average Issue Readership from Recent Reading to Specific Issue Readership, after a series of successful validation experiments in 2006. The data of Specific Issue Readership is not published; Average Issue Readership is still the currency for readership of newspapers and magazines. NOM believes that Specific Issue Readership solves many of the well-known drawbacks of Recent Reading. The new AIR figures have been published since 2006 and proved to be stable over time.

Specific Issue Readership method has been developed in The Netherlands (Faasse and Van Meerem, 2003, Van Meerem 2005, Petric and Appel, 2007) and in the United States of America (Baim, Frankel, Galin, Agresti and Zarnitz, 2007; Frankel, Baim, Galin, Agresti, 2007; Klein, Jacobs, Rovitzky, Galin, Baim, Frankel, 2007) in the past few years. NOM is evaluating the method continuously and therefore developing and improving different aspects of this new way of measuring readership.

As a secondary objective, NOM wanted to examine the additional options for reporting more detailed print data, based on the specific issue data. In the past two years the following data types have been published next to AIR: probabilities for daily issue readership, monthly average readership for newspapers, quarterly average readership for magazines, and pattern of readership accumulation over time for magazine issues.

In this paper we will present the way of measuring and publishing accumulation of readership data in NOM Print Monitor. We will also show an example of using these data in the campaign planning for magazines.

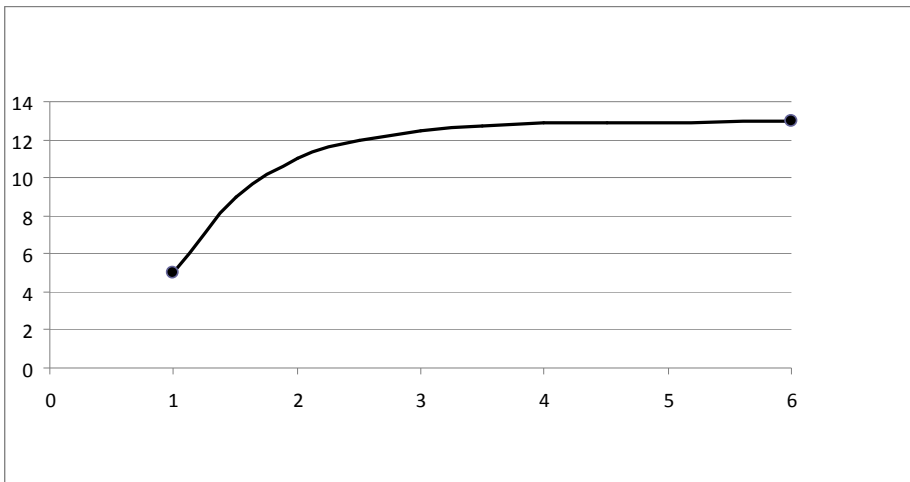
In the second section we will show how the learnings from the accumulation readership data changed the method of calculating AIR.

## 1. Accumulation of readership over time

In addition to providing AIR, NOM wanted to improve campaign planning for magazines. A key difference in the performance of print titles is the actual proportion of the readership that is accumulated at a certain point in time, following the publication date of an issue. For example, if a campaign is evaluated after 4 weeks, which proportion can be considered as effectuated / built / realised?

The traditional approach to time planning for magazines is based on econometric models that base their predictions on two data points: the AIR which is used as the maximum of the accumulation curve and the claimed readership after the first publication period of a publication. Recent Reading data do not provide more information to be used in the calculation of accumulation of readership. This method has been used in different print media planning software tools successfully for several years, but has its drawbacks. The model used in the tools is the same for all the publications, which means that the accumulation of readership follows the same pattern for all the publications. Another problem of the models is that we do not know at which point in time the curve reaches its maximum, i.e. AIR. Figure 1 shows a standard accumulation curve produced by a model.

**Figure 1: Traditional model for readership accumulation**



The method of Specific Issue Readership actually measures the accumulation of readership over time for every publication. Most of the publications (weeklies, fortnightlies, monthlies) are being measured during 6 publication periods in order to determine the accumulated readership of a specific issue. Bi-monthlies and quarterlies are being measured during 4 publication periods. Figures 2 and 3 show the principle of the Specific Issue measurement.

**Figure 2: Examples of Specific Issue Readership question in NOM Print Monitor**

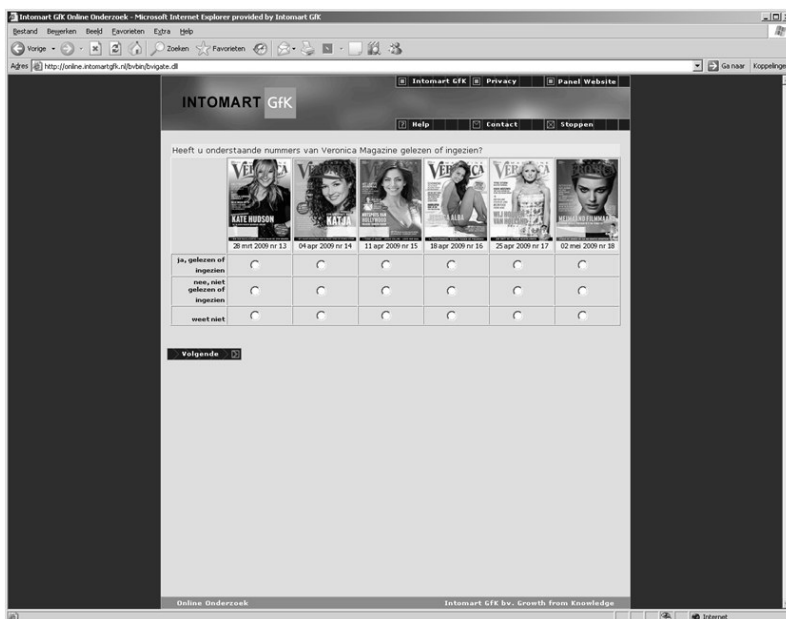
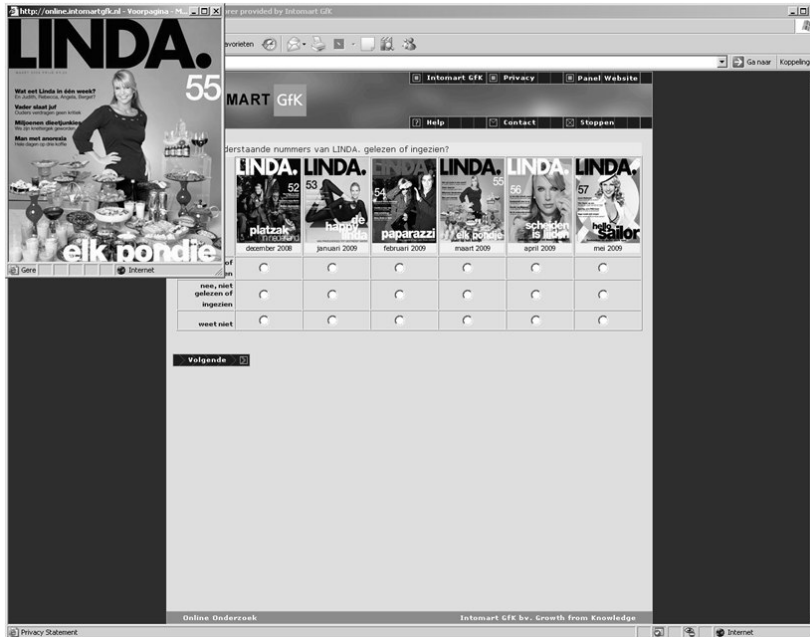


Figure 3: Examples of Specific Issue Readership question in NOM Print Monitor

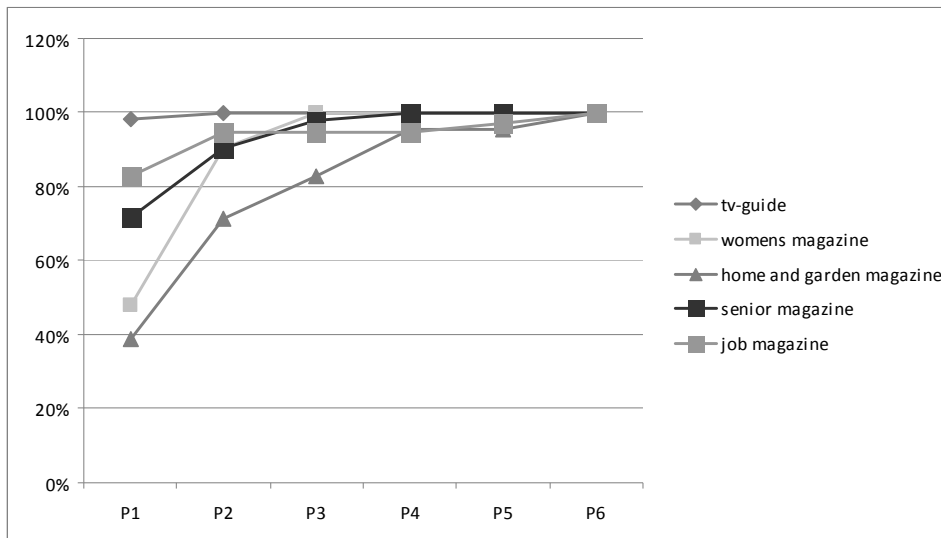


A new publication is added to the SIR question in the most right hand position. In the case of a weekly magazine this happens every week. The publication of the previous week moves one position to the left. After 6 weeks the publication is in the most left hand position of the SIR question. As readership is measured every week the accumulation data are obtained. After 6 weeks the readership of an issue is completely built.

For logistic reasons the questionnaire is updated every Monday morning. This means that all the new publications (covers) are included in the questionnaire on a Monday, though most of them are published in a previous week. This also means that readership of those issues has already been building up in the course of a few days at the moment that the questionnaire is updated. The consequence of this practical solution is that the first measured data point probably overestimates the exact level of readership in the first publication interval. Nevertheless, this does not influence the further process of accumulation of readership.

The measured results show significantly different accumulation curves for different magazines. The following figures show some examples of accumulation curves for different groups of magazines.

Figure 4: Readership accumulation for different types of magazines



These data have recently been delivered for the first time and integrated in media planning software, providing the market with better, validated numbers. The format of the data contained figures for each title; the data were given per week as proportions of AIR. Table 1 shows an example of the data that were delivered to software companies.

**Table 1: Example of time planning data**

Freq.	Title	week 1	week 2	week 3	week 4	week 5	week 6	week 7	week 8	week 9	week 10	week 11	week 12	week 13	week 14	week 15
52x	VPRO Gids	1,000	1,000	1,000	1,000	1,000	1,000									
52x	Voetbal International	0,818	0,887	0,916	0,952	0,955	1,000									
52x	ANWB Onderweg	0,897	0,919	0,919	0,919	0,919	1,000									
52x	Vrouw	0,948	0,958	0,958	0,958	0,960	1,000									
52x	FD Persoonlijk	0,936	1,000	1,000	1,000	1,000	1,000									
53x	Viva	0,589	0,791	0,838	0,907	0,916	0,972	0,972	0,972	0,983	0,986	0,995	1,000			
53x	Yes	0,635	0,785	0,803	0,881	0,881	0,961	0,961	0,968	0,983	0,994	1,000	1,000			
12x	Cosmopolitan	0,496	0,496	0,496	0,496	0,815	0,815	0,815	0,815	0,815	0,935	0,935	0,935	0,935	0,947	0,947
12x	ELLE	0,594	0,594	0,594	0,594	0,878	0,878	0,878	0,878	0,878	1,000	1,000	1,000	1,000	1,000	1,000
12x	Glamour	0,601	0,601	0,601	0,601	0,929	0,929	0,929	0,929	0,929	0,989	0,989	0,989	0,989	1,000	1,000
12x	Knip Mode	0,573	0,573	0,573	0,573	0,846	0,846	0,846	0,846	0,846	0,885	0,885	0,885	0,885	0,885	0,885
12x	Marie Claire	0,433	0,433	0,433	0,433	0,736	0,736	0,736	0,736	0,736	0,938	0,938	0,938	0,938	1,000	1,000
12x	Nouveau	0,525	0,525	0,525	0,525	0,871	0,871	0,871	0,871	0,871	1,000	1,000	1,000	1,000	1,000	1,000
12x	Santé	0,467	0,467	0,467	0,467	0,806	0,806	0,806	0,806	0,806	0,912	0,912	0,912	0,912	1,000	1,000

In the first and the third row of Table 1 two TV guides are shown. They reach their maximum readership already in the first week after the publication. Row 2 shows a newspaper magazine, a supplement which is targeted at women. The lower part of the table shows weekly magazines that are distributed in the so-called reading circles. People can subscribe to a reading circle for several magazines; they receive a portfolio with magazines which have been published a few week before. The price of a subscription depends on the age of the magazines – this can be 2 weeks old up to ... weeks old. Weeklies that are distributed in the reading circles are being measured for a longer period of time, up to 12 weeks after their publication. As can be seen in the table 1 they still accumulate readership after this time.

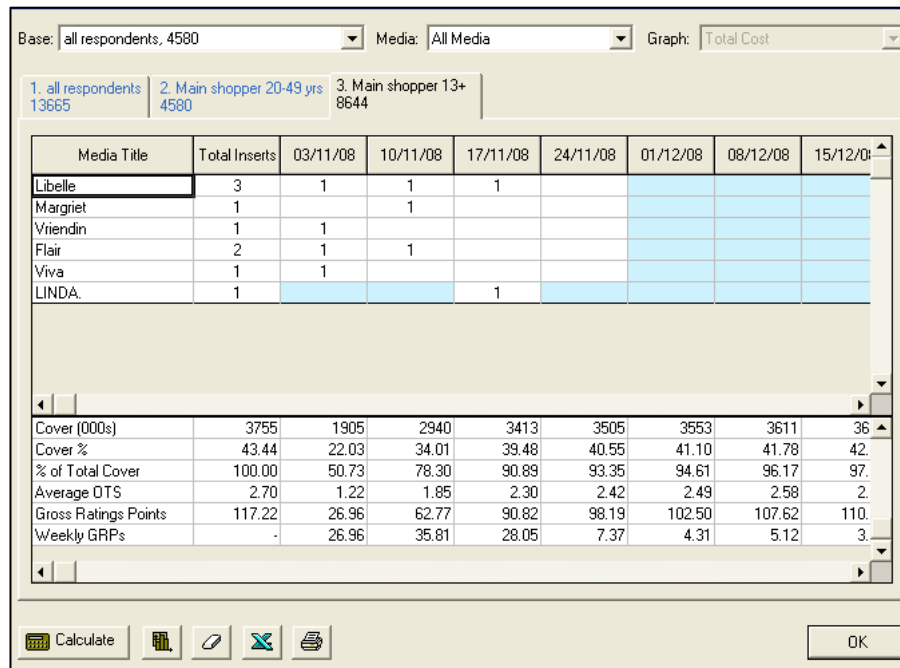
The data for monthlies are also delivered as a weekly build up of proportions of AIR. However, as most monthlies do not have very high readership levels it was not recommendable to publish the data on a weekly level. Monthly figures were therefore used for weeks within one month.

By measuring and publishing accumulation data for magazines NOM has taken its responsibility for the quality of time planning in addition to the currency AIR.

### Time planning for magazines

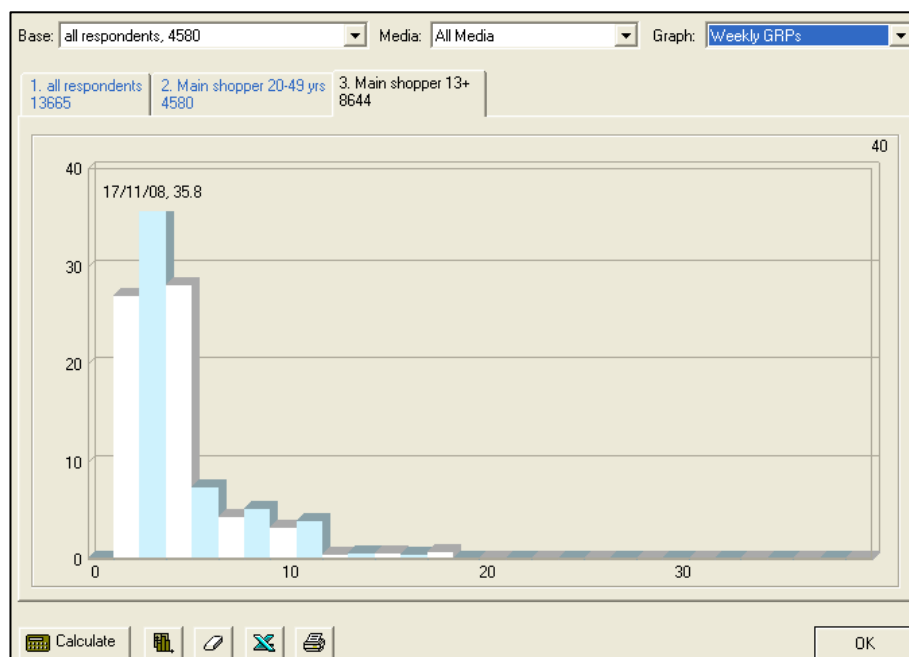
Just to show an example of how the accumulation figures are used in the day to day practice a print schedule was constructed in the Nielsen IMS'Print Reach & Frequency media planning software. After selecting the target groups, the publications and the time period for a specific campaign, the chosen number of insets per publication can be distributed in the time. This can be seen in Figure 5.

**Figure 5: Planning the print schedule in time**



The result of the schedule can be found in the lower part of Figure 5. Weekly GRP's can be calculated for the chosen magazines in a campaign in the same way as weekly GRP's for television and radio schedules are obtained. For the whole campaign period the media pressure per week can be also shown as a graph (Figure 6).

**Figure 6: Media pressure per week**

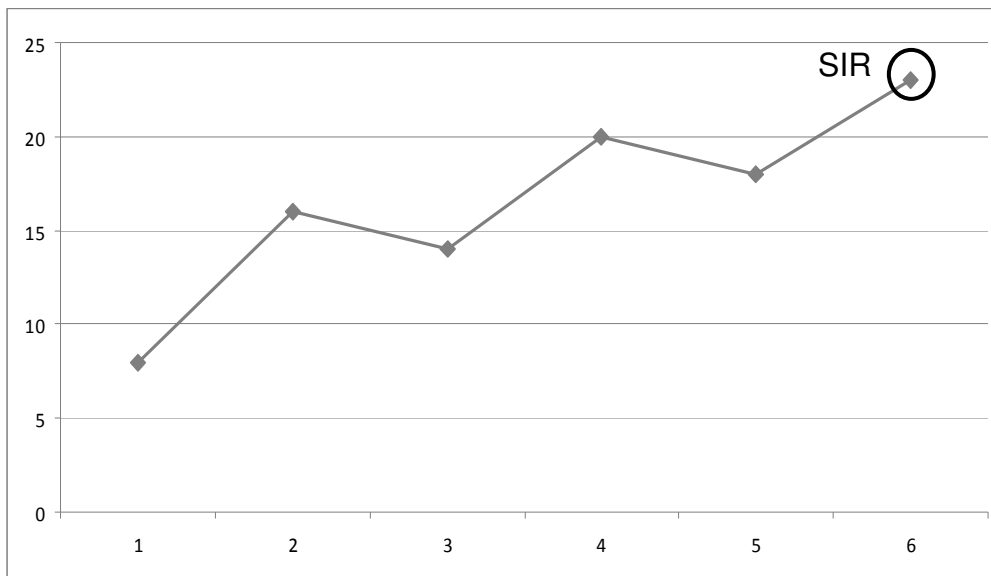


## 2. Optimizing AIR calculation

Specific Issue Readership method has been primarily used for calculating AIR in the Dutch readership survey.

After measuring readership for 6 publication intervals (12 for weeklies in the reading circle and 4 for bi-monthlies and quarterlies) SIR was reached. The data of the last publication interval (i.e. the 6<sup>th</sup> week for weeklies) were used as SIR. AIR was calculated on the basis of all the SIR figures measured for a magazine in one year. Figure 7 shows the principle of calculating SIR.

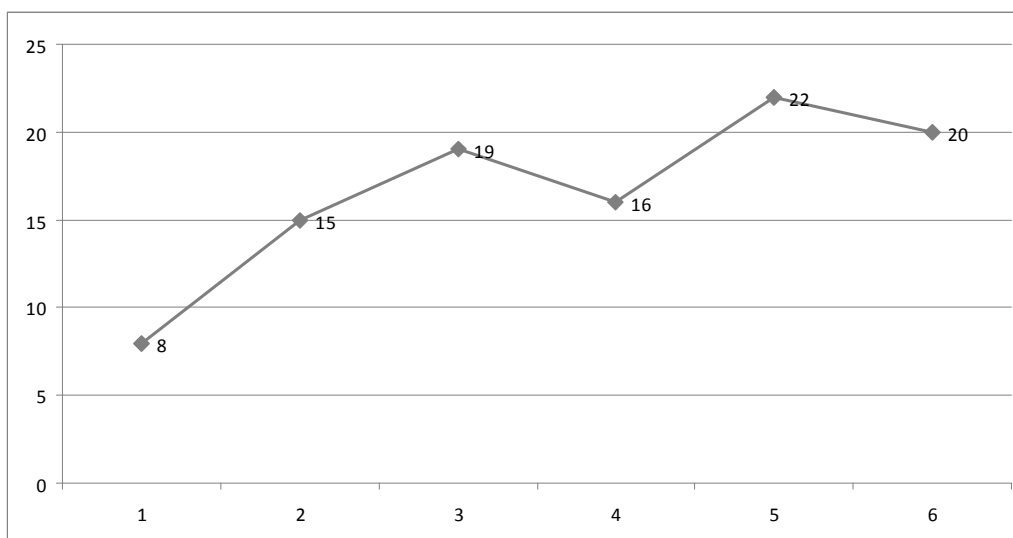
**Figure 7: Specific Issue Readership: readership after 6 publication intervals**



The method shows some inconsistencies in the data that are due either to sample- or memory effects. These inconsistencies were found when calculating accumulation curves for campaign planning data. Readership is supposed to be accumulating in the course of time; it is theoretically impossible that readership declines as time proceeds. If this happens it is the result of sample and / or memory effects.

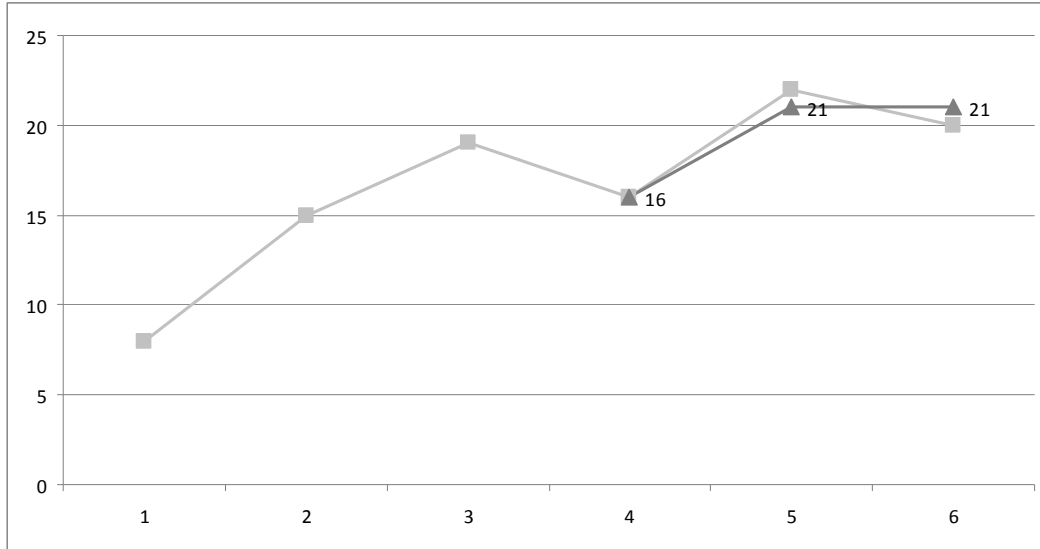
The problem for calculation of AIR arises in the case when the last position (P6) is lower compared to the previous position (P5). This is the position which is used for calculating SIR, and thus also AIR. An example is shown in Figure 8.

**Figure 8: Inconsistencies in readership accumulation**

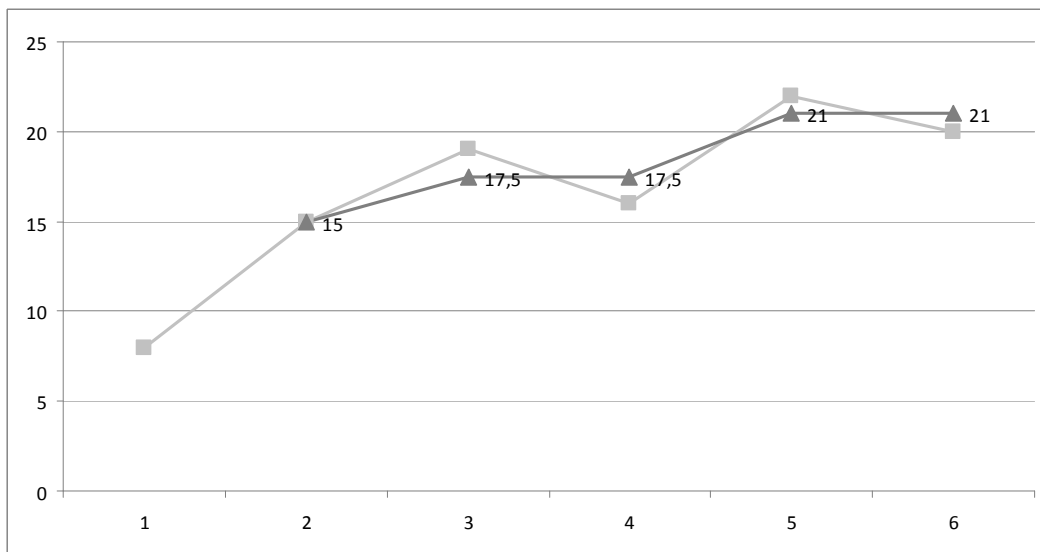


The solution is found in fully applying the richness of the available SIR data. Not only the data of the last measuring period was taken, but all the data collected in the course of time were used to correct the inconsistencies. The so-called smoothing technique was carried out in order to correct the accumulation curves. The principle of smoothing is shown in Figures 9, 10 and 11.

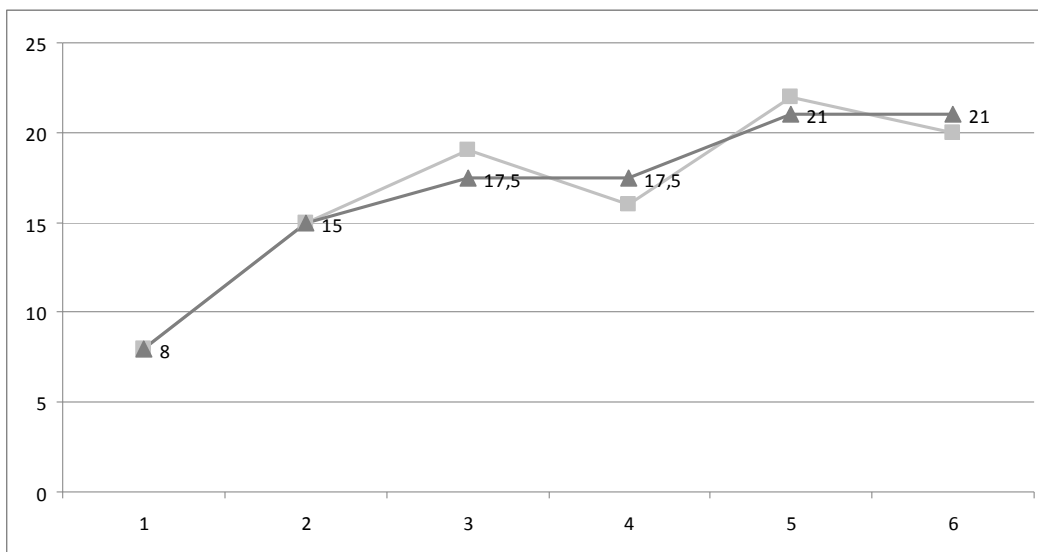
**Figure 9: Step 1 in the smoothing process**



**Figure 10: step 2 in the smoothing process**



**Figure 11: Final smoothed accumulation curve**



The smoothing technique is applied from right to left; if the data point on the right is lower than the data point left to it, we average the two adjacent data points and use the average figure instead of both points. In this way we move from In this way possible sample or memory effects are smoothed away from the data.

This smoothing technique has been used for the first time in the publication of 2008 readership data. The effect of smoothing was very minor: the overall adjustment was + 0,03% over 65 magazine titles.

**Conclusion**

The new method for measuring AIR, Specific Issue Readership method, enables NOM to obtain new types of data that give more detail to the print data and therefore explain the performance of print better to the market. In the past two years the following data types have been published next to AIR: probabilities for daily issue readership, monthly average readership for newspapers, quarterly average readership for magazines, and pattern of readership accumulation over time for magazine. Optimizing the new method for measuring readership is a continuous and challenging process. Just like the method of Recent Reading has been studied and improved regularly in the past decades, we expect to be able to optimize the Specific Issue Readership method further in the future.

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