

THE CAPI DOUBLE SCREEN SYSTEM: A TEST FOR MAGAZINE PRESS READERSHIP SURVEY IN FRANCE

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Why is the AEPM testing the CAPI system?

Since 1993, the AEPM has conducted a readership survey including 135 different magazines. The questionnaire is organised in the usual way : the audience section starts with a filter question about reading in the past twelve months, and then continues with the frequency, recency and source-of-copy questions. Two features, however, are of particular interest:

- The recency question is preceded by a question on yesterday reading allowing extra questions on yesterday reading situations (reading occasions and places of reading) to be introduced and qualify the contacts.
- During the filter question, the mastheads are shown one per card. French magazines have always been very hostile towards grouping several mastheads on one single card, believing that unaccompanied mastheads is the only way to ensure that each title is given equal treatment.

The mastheads are grouped together in two masthead booklets, one for the weeklies and fortnightlies, the other for the monthlies and BI-monthlies, and classified into groups. To neutralise the list effects, we devised several parallel systems of title rotation for the filter question :

- We start with either the weeklies or the monthlies booklet. Doing this revealed that the presentation order in the filter question had virtually no effect on the weeklies' LDP estimates. On the other hand, the monthlies' readership figures, increased slightly by about 4% when they were presented first;
- In order to ensure that the same titles do not always appear at the front or back of the list, the masthead booklets are opened randomly. The audience estimates could indeed vary up to $\pm 6\%$ according to whether the title was shown in the first or last quarter of the masthead booklets when asking the 12 months filter question.
- In order to vary the order of titles, the booklets are presented in two different directions : Up - Down and Down - Up. When two titles' mastheads were very similar, the first one mentioned, and no matter which one, obtained systematically higher readership figures than the following titles. Hence, without eliminating them, we neutralised the effects of confusion between titles in a same group. Indeed, for some title groups, the LDP scores varied by 20% according to the presentation order.
- Moreover, to reduce the risks of confusion, all the mastheads of titles belonging to sensible title groups like 'house and garden' magazines are shown first for all titles before going back and asking the filter question for each of them individually.

Rotations of the frequency, recency and source-of-copy questions after the filter are as limited as for the filter question : the title order printed on the paper questionnaires has to be respected. Moreover, it is not possible to show the mastheads which passed through the filter separately because they remain attached in the booklet.

Everyone will therefore agree that the administration of a complex press readership questionnaire is particularly problematic on a paper support. Not only title rotations are limited but also the high number of filters and coding reports inevitably produce mistakes. Indeed 3% of the questionnaires contain at least one forgotten code. The length of the title list and the changing publication frequencies of the titles need a lot of prompting, thus reinforcing the existing discrepancies between interviewers to comply with this.

The AEPM asked to improve the survey procedures, and choose IPSOS for their proposals made in 1996. This was to use a CAPI Double Screen system. This technical solution would indeed resolve several problems of the actual survey outline :

- title rotation could be managed by the CAPI software
- the new system could improve considerably the conditions of data collection and hence the reliability of the survey results.
- the media list could be extended to new titles to be integrated in the survey without negative effects on the continuity of existing readership figures

Configuration of the double screen CAPI

The innovation proposed by IPSOS, is to add to the traditional CAPI system a second colour screen, dedicated exclusively to the respondent, which includes the presentation of different types of visual stimulus like logos, response lists, photos and so on. The second screen would be completely managed by the interviewers PC.

This new CAPI system offers the chance for new and original developments which could be integrated in readership surveys by introducing specific programming for the second screen.

The choice of material for the CAPI Double Screen program had to be made following two main specifications :

- It had to be as light as possible in order to get the highest acceptance by the interviewers staff. This was particularly important as we suppose that interviewers, who are too heavily charged would not only be less productive but there would also be a real risk for the quality of the sample : Would a heavily charged interviewer go everywhere he or she used to go when only carrying the paper questionnaires ?
- on the other hand, we had to choose the most powerful equipment available on the market which will support also future developments of the software and of course, the survey.

IPSOS finally choose the following equipment which seems to fit in the above specifications :

- For the interviewer : Toshiba laptop with colour screen, pentium 75 Mhz, 32 Mo RAM . The net weight is 850 grams and total weight 1.2 kg.
- For the respondent : Double screen Fujitsu Stylistic 1000, 25 colours, processor 486, 16 Mo RAM with Windows 95. The net weight is 1.7 kg and total weight is 2.5 kg
- Software : We use the POLLUX program under WINDOWS 95 which was specifically developed by AXIOM in order to manage the display of images.
- Images : We integrated a total of 650 different images (mastheads, photos, response grids a.s.o.)

This equipment seems to be the most performant one available at this moment : The total weight of the equipment does not exceed 3.7 kg which can be considered as acceptable for the interviewers.

Questionnaire retained for the quantitative pilots

The possible new methodological outline of the AEPM survey raised up discussion with the magazine press editors for almost a year.

Some of them felt that the time had come to introduce major changes to the survey. On the contrary, others worried about the consequence of too-dramatic methodological changes on the readership figures. A number of proposals were discussed and then, for lack of consensus, rejected:

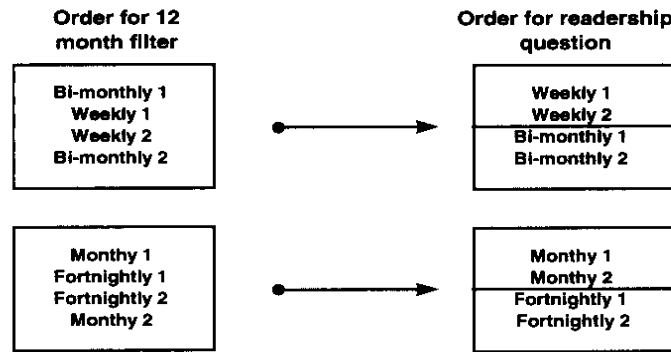
- Use of magazine covers as visual aids as a complement to the presentation of the mastheads : AEPM members considered that certain magazine covers look too similar and that instead of improving identification, the cover presentation would be more likely to increase title confusion.
- Use of the magazine covers to find out which was the last LPR issue read : This proposal should have allowed to estimate the magazines' life and the proportion of readers included in the LDP estimates which have read old issues. But finally the doubts about the reliability of the information obtained persisted. Moreover it might have lowered the readership figures.
- Display of several mastheads on the screen at one time in order to reduce title confusion: this proposal was also refused. Indeed, for French magazines the "single card" has become a sort of dogma.

To sum up, prudence won the day. The philosophy adopted finally by the AEPM was to use as much of the computer's capacities as we could, and to remain as close to the present survey as possible. The principle of the single masthead on the screen was therefore maintained.

The main changes concerned the extent of rotations and the presentation of mastheads after the filter question. AEPM decided on three versions, changing just one element of the methodology in each of the versions so as to isolate the specific effect on the readership figures.

Version 1: Random rotation per periodicity and group

For the filter, the weeklies / fortnightlies and the monthlies / bi-monthlies are shown separately, alternating between groups (as in today's paper method). First the group is selected at random, then each magazine. The same order is used after the filter and the mastheads are no longer shown for the following readership questions.

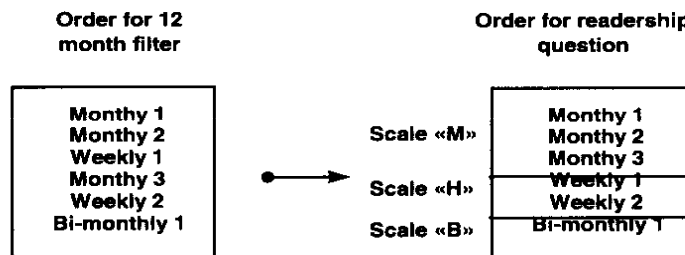


Version 2: Version 1 + generalised display of mastheads

Compared to the first version, the only change concerns the mastheads which are now shown after the filter for the frequency, recency and source-of-copy questions and yesterday reading situations.

Version 3: Random rotation per title group, without distinction between weeklies, monthlies

For the filter, the magazines are grouped together thematically. This allows us to group together titles of a similar nature which are still separated due to their different publication frequency in the actual survey. This applies, for example, perfectly to women's magazines. After the filter, the titles are grouped together according to their publication frequency and presented in the order they appear in the filter. The mastheads are displayed for all readership questions, just like in the previous version.



Results of a qualitative pilot study organised by IPSOS

IPSOS has carried out a pilot study among 133 individuals. The subject of this small pilot was to test the programming of the questionnaire to ensure the hardware and software performances, to record the reactions and comments coming both from the respondents and the interviewers. The results were largely positive:

- The perception of the interviewers was that the questionnaire had become much more ergonomic for them as there are no filters to manage and no recoding to do. Interviewers felt more confident and perceived a higher degree of concentration by the respondent. The position of the interviewer and his respondent during the interview was in most of the cases not directly face to face but at an angle of about 75°. The interviewer could thus control the correct display of the images on the second screen.
- Respondents showed a very positive reaction to the new technological device: the CAPI machine improves the status of the interviewer and the image of the survey.
- Interview duration with the CAPI Double Screen System was the same as in the paper and pen configuration: 48 min for the CAPI, and 47 for the paper questionnaire. The interviewees, however, perceived the interview duration shorter. Respondents stayed concentrated on the screen and learned very quickly to answer the questions as soon as the image on the screen had changed, or to use the answer grids. With the paper questionnaire, the interviewer has to bring back more often the interviewee's interest to the answer or masthead cards. Using the mastheads was seen as a genuine aid to recall. Their use throughout the entire readership section livened up the interview and made it less boring.

Quantitative testing of the CAPI Double Screen System

Presently, the AEPM is doing the quantitative testing of the three questionnaire versions described above. Each of the three fieldwork contractors for the general survey is doing a third of the fieldwork for each of the three versions. The total sample size

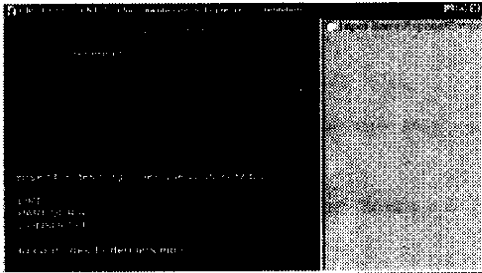
is 1000 interviews for each version. The results will be analysed, and in a few weeks time the AEPM will decide on the use of CAPI for the general survey and on the questionnaire version which could be used when the new survey is launched next January.

Specific developments carried out for the survey and screen examples

In the following we want to present some of the most important specific software developments which were necessary in order to comply with the specifications of a renewed AEPM general survey . We have asked AXIOM to develop some new functions for the already existing POLLUX software. These developments were the following :

- A homogeneous presentation throughout the whole questionnaire .
Un écran scindé €

Texte enquêteur



- The typographical codes of the actual AEPM paper questionnaire had to be integrated in the new questionnaire displayed on the interviewer's screen
- Automatic prompting management with varying 'distances' : Prompting for the 1st, 2nd, 5th, 15th or 25th ... title. The counter has to be reset each time when starting with a new title group or when changing the response grids.
- The title order had to be fixed at the level of the 12 months filter question by using a weighted random procedure. Each title included in the media list had to get exactly the same probability to be selected first. The random selection had therefore to take into account the number of titles included in each group.

It is obvious, that we had to adapt the title selection system to each of the three questionnaire versions tested in the pilots.

Probability for being the first title of the list :

⇒ In the AEPM actual paper questionnaire

Where : N : number of weeklies or bimonthlies
h
N : number of monthlies or fortnightly
m

$$P_h = \frac{1}{2} \times \frac{1}{N} \cong \frac{1}{80}$$

$$P_m = \frac{1}{2} \times \frac{1}{N} \cong \frac{1}{160}$$

⇒ In the AEPM CAPI system

Where : F_i : number of title in a title group i

For version 1 or 2

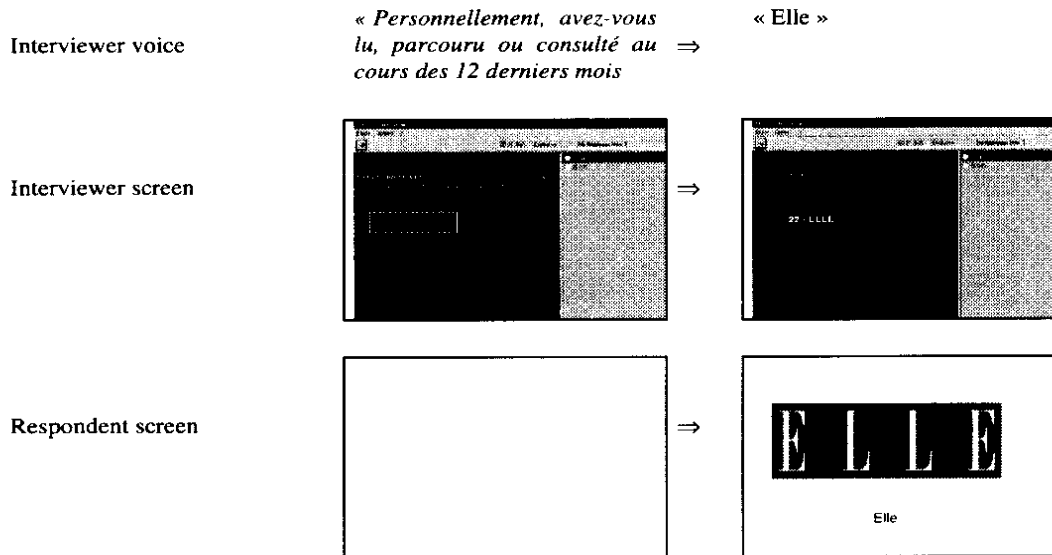
$$P_{hi} = \frac{1}{2} \times \frac{F_i}{N_h} \times \frac{1}{F_i} = \frac{1}{2} \times \frac{1}{N_h}$$

$$P_{mi} = \frac{1}{2} \times \frac{F_i}{N_m} \times \frac{1}{F_i} = \frac{1}{2} \times \frac{1}{N_m}$$

For version 3

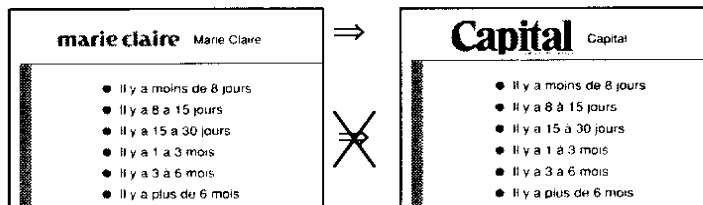
$$P_i = \frac{F_i}{N} \times \frac{1}{F_i} = \frac{1}{N}$$

Time differed display of the images on the respondent's screen in order to introduce the possibility to show a title's masthead to the interviewee screen at the exact moment when it is spelled out in the question;



Introduction of a first display of all the titles belonging to a title family with high risk of confusion. During the first display, all of the mastheads have to be treated equally by getting exactly the same exposure time.

Introduction of the possibility to display more than one single image on the same screen thus avoiding disturbing 'cuts' between two titles and limiting the number of images to be stocked .



Introduction of automatic coding lists in order to ensure easy recoding of interviewee's working status, geographical data or brand name

Screen display examples :

12 Month filter



Elle

Frequency



Auto Plus

- Toutes les semaines
- 2 à 3 fois par mois
- 1 fois par mois
- 5 à 6 fois par an
- Moins souvent

Yesterday question



Télé Poche

HIER, mercredi...

Place of reading



Capital

**HIER, mercredi
Vous avez lu ce magazine...**

- | | |
|--|--|
| ● A votre domicile | ● Chez le coiffeur |
| ● Sur votre lieu de travail | ● Chez le marchand de journaux, dans une librairie |
| ● Dans les transports | ● Dans un club, une association |
| ● Chez des parents, des amis, des voisins | ● Dans un café, un restaurant, un hôtel |
| ● Dans une salle d'attente (médecin, gare, aéroport, etc.) | ● Ailleurs |

Recency

marie claire Marie Claire

- Il y a moins de 8 jours
- Il y a 8 à 15 jours
- Il y a 15 à 30 jours
- Il y a 1 à 3 mois
- Il y a 3 à 6 mois
- Il y a plus de 6 mois

Source of copy



Le Point

La dernière fois...

- Vous êtes abonné(e) ou une autre personne de votre foyer (habitant ici) est abonnée
- Vous l'avez acheté ou une autre personne de votre foyer (habitant ici) l'a acheté
- Votre entreprise y est abonnée ou l'a achetée
- Vous vous l'êtes procuré d'une autre façon (trouvé, prêté, donné, etc.)

Conclusion

Even before the end of the pilot phase of the CAPI Double Screen System we can conclude that the system works in a quite satisfying way : It benefits from a good acceptance by the interviewees as well as by the interviewers.

From a technological point of view results seem to be encouraging even if the test program has revealed a certain number of problems in various parts of the questionnaire and which need to be corrected. For example some of the answer grids presented on the screen need to be clarified.

We also have to introduce more varying transition comments between the different questionnaire blocks if we want to make the interview more attractive and less boring for the respondents.

The CAPI Double Screen Technology gives us the opportunity to modernise the actual AEPM survey. Improvements will be effective at two levels :

- Interaction between the interviewers and the respondents

The more attentive the interviewees are, the more precise their answers. The more the interviewers' job is simplified, the more attention they will pay their interviewees.

- Methodological conditions of data collection

The automatic management of title rotations will neutralise the list effects. The generalised display of image will improve the respondent attention and generate more accurate data. Lastly the harmonised interview conditions will tone down the interviewer's influence.

Beyond this application , IPSOS is presently investigating on new kinds of applications for the CAPI Double Screen technology. Scanning of magazine covers and the introduction of the images in the system might be useful for new approaches of analysing the comportment of some problematic title family.

The identification of specific magazine numbers will hence be possible and could provide the market with new and qualitative data about reading and media consumption in general. Moreover, ad-hoc applications could also be developed by integrating, entire magazine in the CAPI system or sound and video elements.

