

# MEC PrintImpact: An insight-based planning tool

## Full paper for PDRF Madrid 2017

### Abstract

This long-term study conducted by MEC and DCORE aims to measure the reading behavior of German print title readers in a new and innovative way. It derives information for ad placement, print planning and publisher interpretation and creates an extensive database on the German print market. The study is set up to run for several years with a basic set of magazines that can be extended flexibly. It consists of three waves and 9.000 cases per year. Participants are recruited from a set of four online access panels and guided through computer-assisted web interviews. The survey model including an integrated coding software has been developed specially for this study. The design consists of two parts. First, the "classic" survey to gain information on participants' sociodemographic profile, attitudes and behavior by using closed questions. Second, the newly developed part leading participants to another website where they see a digitalized print magazine in their browser and click through page by page as if they are turning pages on their desk. An online dashboard offers various functions to analyze the data.

### Context

#### Key objectives

The main objective of this study is to gather information on people's print title reading behavior. The study focuses on magazines, but includes newspapers as well<sup>1</sup>. This information is used:

- To optimize the placements of ads. Attention values on particular editorial contributions in magazines indicate the awareness of readers. Along with information on topics and editorial departments, the study identifies environments where readers keep ads in mind in the best way.
- For print planning and publishers to get a detailed picture of the content in a specific set of magazines. The data uncovers the way readers use different environments. Based on this information, print planners and publishers can compare for example the structure, topics and editorial departments of competing magazines. Editors can derive implications on how readers accept different topics and how they consume articles in particular departments.

There is one central question underlying the interpretations above: To which magazines, topics and editorial departments do readers pay attention? The present study examines this question and seeks to measure people's reading behavior and intensity.

---

<sup>1</sup> Speaking of magazines in this paper also refers to newspapers

## Challenges and new approach

This study faced the challenge to transfer a study design conducted by telephone for several years into an online survey. The leading questions in this process were:

- How to acquire detailed information about people's reading behavior without personally talking to them?
- How to survey print titles online?
- How to prompt readers to remember their reading behavior without tactile appeals?

Until 2015 this study was conducted by telephone which became out-of-date. On one hand, the former study observed readers who owned the magazine in the household. While participants were searching through all the pages, they told interviewers which pictures, texts and headlines they paid attention to on every page. As a result, this method especially included intense readers like subscribers and regular purchasers. Due to the new sampling procedure now also infrequent and out of home readers are taken into consideration. On the other hand, there are difficulties to reach the entire population via telephone these days; some sociodemographic groups cannot be reached sufficiently via landline because they only own mobile phones<sup>2</sup> - this applies especially to younger people. Therefore, telephone surveys give a distorted picture of the situation. Additionally, as nowadays more and more older people are 'always on'<sup>3</sup> this group is digitally accessible as well. Via online access panels, broad sociodemographic classes are available and can be addressed easily.

As the interview takes about 20 minutes and to capture a broad and diverse crowd, it is necessary to motivate people to take part. Because of that, the copy test developed for this study strives to set up an exciting and entertaining study design by using gamification elements.<sup>4</sup> It aims to meet people's expectations and requirements. Two questions are elementary for researchers:

- What does an appealing study design look like?
- How can it motivate people to take part and not to break off the questionnaire?

---

<sup>2</sup> [http://www.forschungsgruppe.de/Publikationen/MDA2\\_07\\_Schroth\\_Hunsicker.pdf](http://www.forschungsgruppe.de/Publikationen/MDA2_07_Schroth_Hunsicker.pdf)

<sup>3</sup> [http://www.ard-zdf-onlinestudie.de/fileadmin/Onlinestudie\\_2016/PM\\_ARD-ZDF-Onlinestudie\\_2016-final.pdf](http://www.ard-zdf-onlinestudie.de/fileadmin/Onlinestudie_2016/PM_ARD-ZDF-Onlinestudie_2016-final.pdf)

<sup>4</sup> <https://www.theguardian.com/media-network/media-network-blog/2012/aug/15/online-market-research-gamification>; <https://www.tns->

[infratest.com/presse/pdf/in\\_der\\_presse/mafo\\_maerz\\_2012\\_jahreskongress\\_die\\_neue\\_lust\\_am\\_mitmachen.pdf](http://infratest.com/presse/pdf/in_der_presse/mafo_maerz_2012_jahreskongress_die_neue_lust_am_mitmachen.pdf)

## Survey pilot

To get an impression of the effectiveness and difficulties of this new way to perform a copy test, a pretest with a sample of 503 participants was conducted in summer 2015. The pilot tested a set of ten magazines and newspapers. Corresponding to the design of the study, the pilot took eight weeks and was set up according to the final study. The aim of the pretest was to deduce definitions of editorial contributions, coding rules and evaluation mechanisms. In general, the study design was approved after the pilot and has been used in an optimized and adjusted way for the long-term study.

## Overview of methodology

### Sample

The study aims to represent the German population, aged 14 to 74 years. Online access panels recruit the participants in a rotating model: three panels out of four are commissioned in each wave. Therewith, the study can address a broad and diverse crowd. Additionally, people participating in one survey wave are not allowed to participate in the following one. Firstly, this assures the study uses a fresh sample in each wave and secondly, it avoids learning effects. The target group is defined by readers of at least one of the print titles included in the study.

The study uses computer-assisted web interviews (CAWI) and thereby people participate by filling out a closed online questionnaire on their own. Due to the study structure and the usage of large illustrations, participation on mobile devices is denied. Participants are allowed to pause and resume the survey within 48 hours.

### Study structure

The study is set up as a long-term measurement and consists of three waves per year. In this way, it covers almost the whole year avoiding seasonal effects or possible impact of current topics.

One wave lasts eight weeks. The panels invite participants evenly over this time to gain equal data. For each magazine, the study targets a number of 150 cases per year<sup>5</sup>, though for magazines with low media coverage, fewer cases are acceptable. All issues of the magazines published during these eight weeks are included. It is possible to update the magazine set before each new wave.

The publication of the results takes place once a year in November. Additionally, unweighted data of the current year is accessible in the analysis tool after each wave to provide temporary up-to-date data at every stage.

---

<sup>5</sup> To get a large database, two waves with 13.600 cases in total were conducted in the first year 2016.

## Collection of data

The core of the study are copy tests of the editorial content that collect information about reading behavior and attention on editorial content in several magazines.

The first part is about assigning the participant to a magazine he or she has read and can evaluate. This process follows a model where people recognize the read issues by seeing their covers. For each magazine in the set, the questionnaire displays the six most recent issues, from which the latest three are tested in the study. If a new issue is released during the field time, the oldest issue will be removed and replaced by the newest one. If participants pick more than one relevant issue, an algorithm assigns an issue. With this technique, all magazines have the same likelihood to get picked but all issues can reach approximately the same number of cases.

The algorithm considers:

1. The number of cases for the chosen issues: How much data has already been generated?
2. The remaining time in the survey: How long will these issues still be available and can generate data?
3. The "most pressing issue" should be preferred

Additionally, it is possible to overrule the algorithm by prioritizing magazines manually that would not achieve enough cases under given circumstances. If a participant picks one of these issues, they are instantly assigned to this one no matter which other magazines were picked. This assures that all issues will get about the same number of participants and considers magazines with low media coverage.

Besides magazines, other print formats are included with certain adjustments. Regarding *weekly* newspapers such as "Bild am Sonntag" or "Die Zeit" only the most recent issue is relevant in the study. As weekly newspapers cover current events, they are outdated when a new issue is released. The study also samples *daily* newspapers during two separate weeks in each wave. As for all magazines (except weekly newspapers), the three latest issues are included.

## Coding of content

The study uses a web-based software called LASSO to categorize the content elements. The tool has been developed by DCORE uniquely for coding digitalized print formats. Each issue is stored as a PDF file and displayed in the tool page by page. A team of trained coders scans every page of an issue assigning the following information to the content elements:

- Element types: Is the marked element an ad, an editorial contribution, or a special contribution such as a horoscope, a puzzle, a recipe or a table of contents?
- Contents: Does the element consist of a headline, a picture/illustration, a table or/and a text?
- Editorial topics: One up to three topics and up to six subtopics can be attributed to each article.

- Department: In which editorial department (according to the table of contents) does the element appear?

The table of contents defines where one editorial contribution starts and ends. With the group function in LASSO, coders can aggregate several elements belonging to one editorial contribution for the analysis of data. Coders follow a regularly updated set of rules for every magazine and are trained and checked permanently. Thus, coding differences are minimized.

The study integrates the information coded in LASSO dynamically in the questionnaire. Participants click through an issue and see every element that has been coded realistically as a double page. Afterwards, participants' answers are combined with the coded data on file for every element.

### Questionnaire design

The questionnaire consists of three parts.

1. Screening: Fitting a person to an issue
2. Copy test: Gathering information about reading an issue
3. Supplement: Completing the information about participants and their characteristics

1) In the screening, sociodemographic characteristics such as gender and age are surveyed and participants specify the magazines they have read. From this data, the algorithm chooses the issue a participant will deal with as explained before. Once the algorithm has picked an issue, quality questions asking for the approximate reading date and place filter the participants. Finally, participants have to confirm explicitly to have read the picked issue.

2) The core part of the study is the dynamic interview about a print issue, the so-called copy test. As explained before participants click through the whole issue in a web browser and are asked to remember what they have noted and read before. To facilitate remembering the contents, the study displays issues realistically as double pages and highlighted the considered elements while irrelevant parts are faded. The questions are attached to the highlighted elements (Fig. 1).

Figure 1: Layout of the copy test with highlighted questions on editorial contributions



Randomization is chosen to avoid order of sequence effects. To keep the authentic feeling of reading a magazine, the first and last department have fixed positions, so participants start the survey with the first department and finish with the last one. For a better orientation, pages and editorial contributions are set in the right order within a department. To get the complete picture and to lead the reader realistically through the questionnaire, the survey also measures the attention on ads – data that is not analyzed within this study because of its editorial focus.

There are two exceptions from this interview procedure. First, there are programme magazines. The study handles the editorial part of programme magazines in the same way as other magazines. For the programme listing and the programme highlights, it uses only the first day in every issue (mostly Saturday). The received data will be transferred to the remaining days. The study hypothesizes a ritualized reading behavior of programme magazines where one day does not differ from another. Second, regarding newspapers a random mode chooses 35 articles by coincidence. People answer questions as displayed in Table 1 in randomized order.

Different types of contributions cause specific reading behavior and therefore demand different ways of questioning. For example, a horoscope is defined as one editorial contribution. Usually, one will not read a whole horoscope but only the text of one's zodiac sign and maybe those of one's peer group. The item "I read the whole text" therefore does not make sense in this case. Considering this fact, questions on editorial contributions depend on the element type of the high-lightened part.

The first question on every page (except for ads) is if participants have noted the whole page / double page (depending on the size of the editorial contribution). After affirming this question, selectable options are shown in the following table.

**Table 1: Questions items by question text**

<b>Basic items</b>	Question: What did you pay attention to in this article?
<b>Editorial contribution</b>	I read (almost) the whole text. I read half of the text. I read less than half of the text. I saw the pictures/illustrations. I saw the tables. I read the heading(s). I didn't pay attention to anything in the article.
<b>Special items (TV programme)</b>	Question: What is true for this programme listing?
<b>Programme listing</b>	I quickly scanned the listing. I read what was interesting to me. I didn't pay attention to anything in the listing.
<b>Programme highlights</b>	Question: What did you pay attention to in this highlight? I read (almost) the whole highlights. I read half of the highlights. I read less than half of the highlights. I didn't pay attention to anything in the highlights.
<b>Binary items</b>	Question: Did you read parts of ...?
<b>Table of contents, (crossword) puzzle, horoscope, poster, recipe, register, market</b>	Yes No

3) In the last part of the survey, participants answer questions on their usage of the websites of the print title set and their usage of the apps attached to the titles. Additional sociodemographics about the person and the household (such as education, marital status, income, decision maker in household, household size) are collected for target group interpretation of the data.

### Weighting

For publication of the data once a year the final dataset is weighted by gender (male/female) and age (14-19 years, 20-29 years, 30-49 years, and 50-74 years) following the most recent German media analysis study called "ma Presse". There is no cross weighting of these two factors.

Weights are calculated for each particular magazine by using readers per issue. Thus, the study represents the structure of each magazine in the most accurate way. Due to this measure, no structural analyses across magazines are possible. Considering the key objectives of the study – to analyze topics and departments within certain titles, this is the more important purpose.

Weighting factors are restricted to a lower limit of 0.2 and an upper limit of eight. In this way, no participants will lose their impact or get overrated. Age groups that don't exist in the "ma Presse" but are filled in our study, get the weight of the nearest age group. Their actual

sociodemographic information remains. With this technique, valuable information will be stored and used in the most authentic way.

There are several magazines which aren't included in the media analysis "ma Presse". There is only unweighted data available for these magazines until they are included in the "ma Presse" and there are weighting factors available.

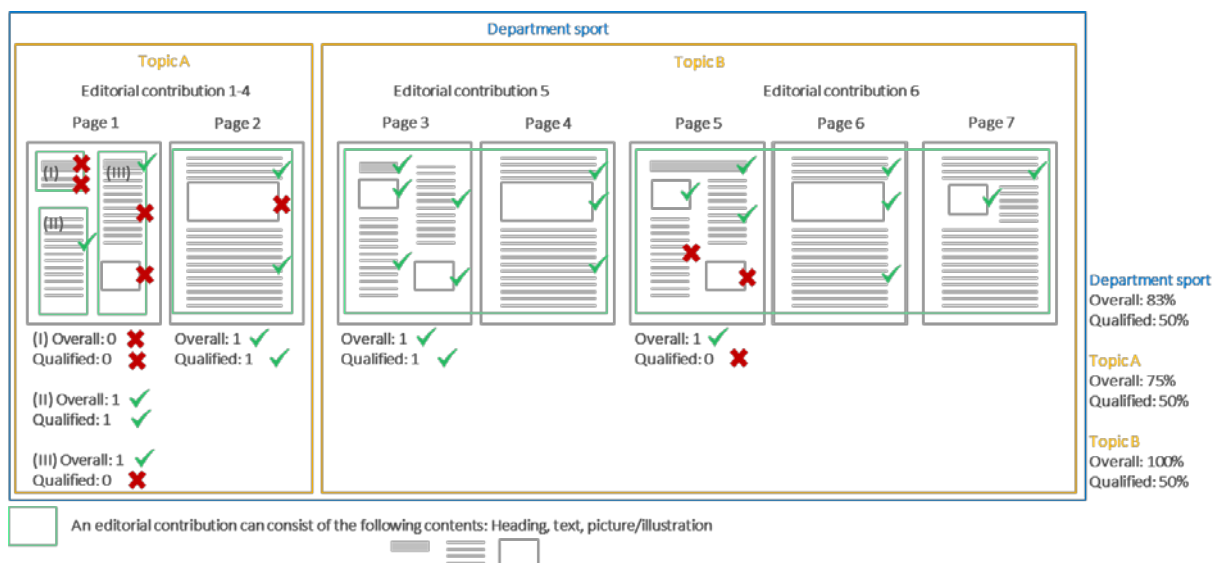
### Evaluation and interpretation of data

The interpretation of the data takes place in an online dashboard. There are predefined evaluation rules to calculate the attention values of editorial contributions. Each editorial contribution has two attention values per participant.

- 1) Overall attention: The reader noted at least in one element of the editorial contribution at least one content (heading, picture, table or text).
- 2) Qualified attention: The reader read the whole text of all elements belonging to an editorial contribution. If the contribution doesn't contain any text, the reader noted all available contents (heading, picture).

Fig. 2 illustrates how attention values are determined.

**Figure 2: Attention values**



For editorial contributions with specific items (Table 1), qualified attention is defined by:

- Programme listings: "I read what was interesting to me"
- Programme highlights: "I read (almost) the whole highlights"
- Binary items: "yes"



## Conclusion

MEC PrintImpact allows interpreting magazine contents on various levels. Giving information on how people perceive magazine contents as topics and editorial departments, it enables media planners to place ads optimally. Additionally, publishers and editors get information on the relevance of particular contents following the readers' attention flow.

The study answers the questions described in the beginning of this paper. It deals with the ongoing digitalization in media research by improving recruiting and using innovative online surveys. For a long-term measurement, these methods build a solid and precise base for consistent and authentic data that is useful for the media industry.

Using the described method of online interviews combined with the coded content information, a broad database is built and versatile analyses can be made. This approach to combine survey data with coding information differentiates the project from similar studies that concentrate on single aspects. It gives a comprehensive overview and valuable insights on readers' perception of the German magazines and newspapers and therefore adds value to optimizing media planning.

Düsseldorf, Munich, September 2017

---

### **MEC GmbH**

Karin Immenroth  
Chief Analytics Officer  
Derendorfer Allee 4  
40476 Düsseldorf  
Germany  
+49 211 5588 217  
[Karin.Immenroth@mecglobal.com](mailto:Karin.Immenroth@mecglobal.com)

### **DCORE GmbH**

Wolfgang Dittrich, Managing Director  
Bettina Zerwes, Consultant  
Herzog-Wilhelm-Str. 1  
80331 München  
Germany  
+49 89 716 772 005  
[zerwes@dc core.de](mailto:zerwes@dc core.de)