

# READER INVOLVEMENT: WHO? WHAT? WHERE?

**Britta C. Ware, Reader's Digest Association and Knowledge Networks, Inc.**

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## SYNOPSIS

Are the various "qualitative" measures used in major syndicated readership studies as useful as we think? If so, which ones? How can they be used to better demonstrate the value of print media? Or of individual titles? Can they be linked to advertising effectiveness? Recent work by an *Involvement Alliance* of magazines<sup>1</sup>, led by *Reader's Digest*, sought answers to these important questions.

Over the past year, the Involvement Index (originally presented June '02 at the ARF/Esomar WAM in Cannes) has been widely embraced as a breakthrough that enables qualitative data to be effectively incorporated into the planning and buying process. It has also sparked a debate over the "best ingredients" for the Index, along with lingering questions as to the quantifiable impact of reader involvement on ad recall.

The purpose of this paper is two-fold. First, to review the recently released (June '03) research that the *Involvement Alliance* sponsored (through Knowledge Networks) which validated reader involvement as a key metric for increasing unaided advertising recall, and second, to provide subsequent analysis derived from additional information from the main study that goes beyond the primary objectives.

## Main Study

The goal of the main reader involvement/ad recall study was to 1) validate a correlation between reader involvement and ad recall, and 2) develop a new Involvement Index model combining the critical drivers of ad recall. Towards this end, we developed a series of hybrid CART Logit Models (HCLM) to precisely quantify the effect of each MRI involvement measure on ad recall. The HCLM approach allowed us to identify and model key nonlinear and interaction effects of these measures that would not be captured by traditional linear models. In addition, our modeling approach took into account the ordinal nature of the dependent measures – which were counts of recall across multiple advertisements. From the model results, we derived the percent of variance explained by the model and each of the involvement measures.

## Subsequent Analysis

After achieving the main study objectives, we have a wealth of data related to reader involvement, which should prove to be of interest. Not only does this additional analysis address frequently asked questions (e.g., reader involvement differences by demographic), but it provides some interesting learning on the value of the creative quality and positioning. Although some of the findings are directional in nature – due to the sample size constraints – this additional data provides insights into areas of increased interest and discussion and addresses some of the natural questions that come out of the main study. The additional analysis falls into two main areas:

1. Analyze the demographic differences between high and low involvement readers.
2. Analyze the impact of the creative strength and positioning on advertising recall and reader involvement.

While this research does not pretend to answer all questions regarding the measurement of reader quality, we believe the comprehensive analysis of the effect of involvement on ad effectiveness moves the industry a crucial step forward in assessing the dynamics and the value of magazine readership.

## PART I:

### OVERVIEW OF THE MAIN READER INVOLVEMENT/AD RECALL STUDY

Agencies are focusing more intensely on media plan ROI and the relative value of each media vehicle as a result of the continuously increasing level of clutter in the marketplace. Over the past year, the Involvement Index (presented June '02 at the WAM in Cannes) has been widely embraced as a breakthrough that enables qualitative data to be effectively incorporated into the planning and buying process. It has also sparked a debate over the "best ingredients" for the Index, along with lingering questions as to the quantifiable impact of reader involvement on ad recall. This is the challenge addressed with this paper.

An Involvement Alliance of magazines, led by *Reader's Digest*, sponsored a research project (through Knowledge Networks) with the objective of determining the extent to which the MRI involvement measures are related to recall of actual ads.

<sup>1</sup> The *Involvement Alliance* is comprised of *FamilyFun*, *Golf Digest*, *Guideposts*, *Country Living*, *National Geographic*, *Reader's Digest*, *Smithsonian* and *The Family Handyman*.

The objectives of the research study are 1) to evaluate the relationship between the magazine reading experience and the recall of ads in the magazine, and 2) to determine which elements of magazine involvement -- specifically, the nine elements measured by MRI -- are most strongly related to ad recall. Ultimately, this research will provide an updated and validated Involvement Index for use by the media planning community. The study incorporates recall data for advertising recall (unaided to aided) from readers of the five largest magazines.

The sample for the study is 1,044 past six-month readers of *Reader's Digest*, *Better Homes and Gardens*, *National Geographic*, *People* and *TV Guide* conducted with the Knowledge Network panel. Based on readership of the March/April issues of the selected magazines, respondents are randomly assigned to a specific issue and asked their recall of five ads per issue in four different ways – completely unaided, aided with a brand list, aided with a written description, and aided with a visual of the actual ad.

Advanced statistical modeling techniques assess the impact of involvement on ad recall. Based on this rigorous regression analysis, it is clear that several of the involvement measures contribute significantly to the ability to predict ad recall (the study focuses on unaided recall as the gold standard).

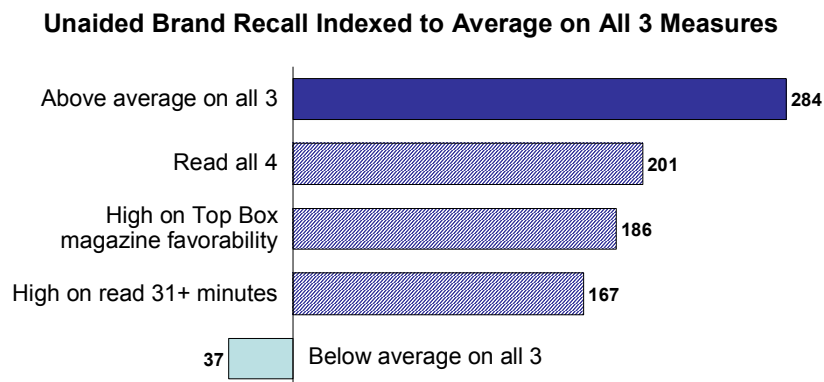
- Logit models incorporating the nine involvement measures and four control variables are developed. The final model explains 15.4% of the unaided ad recall. (As a point of reference, a TV ad effectiveness study was able to explain only 12% of ad recall with executional factors, such as humor.)
- Some the involvement measures contribute more strongly to predicting ad recall than others. The measures which have the strongest impact on unaided recall in these models are: 1) read all of last four issues, 2) time spent reading issue (31+ minutes), and 3) magazine favorability (“one of my favorites”).
- Combined, these three measures prove to be the optimal combination for the new Involvement Index and can significantly increase the potential for an ad to be recalled top of mind.

Following is a brief overview of the study design. (The detailed report is provided as an appendix to this paper. Although the results of the main study were presented at the June '03 ARF/Esomar conference in Los Angeles, CA, the published paper was based on results of the pilot test only, since the main study was not completed in time to meet the ARF/Esomar paper deadline.)

**Main Study Design Overview**

- Survey conducted among 1,044 readers of one of the largest five magazines.
  - BH&G, National Geographic, Reader's Digest, People or TV Guide
- Conducted by Knowledge Networks using a Web-Enabled panel that is a national probability sample of both Internet and non-Internet HHs, and is reliably projected to U.S. population.
- Each respondent questioned on reader involvement measures (using exact MRI wording – for specific, rather than average issue, plus 2 questions).
- Followed by a series of ad recall questions – from unaided to aided.
  - Five ads pre-selected from each magazine.
  - Sixth (“ghost”) ad included in every interview as further control mechanism.
  - Ad selection was based on: national only, strong creative, limited TV/Print, new campaign.
- Each respondent surveyed for only one issue of one magazine (<15 minutes to complete the survey).
- Advanced statistical modeling techniques analyzed the impact of involvement on ad recall.

The following exhibit illustrates the potential increase in unaided ad recall generated by a magazine which scores high on the Involvement Index (“High Impact” measures can nearly triple unaided ad recall). Chart illustrates index vs. magazines with average reader involvement.



## **PART II: ANALYZE THE DEMOGRAPHIC DIFFERENCES BETWEEN HIGH AND LOW INVOLVEMENT READERS**

### **Background and Objectives**

The goal of the main involvement study was to demonstrate a clear relationship between reader involvement and ad recall, and secondly, to determine which elements of magazine involvement are most strongly related to ad recall. Based on the findings, three involvement measures were determined to provide the greatest predictors of unaided ad recall (read 4 out of 4 issues, read 31 or more minutes, “one of my favorites”). What we didn’t review in the main study was the profile of the respondent who is a “high involved reader” and a “low involved reader.” This is the purpose of this section of analysis.

- “High-involvement readers” are defined as: 31 minutes or more spent reading the issue, read four-out-of-four of last four issues, and had top box favorability ratings.
- “Low-involvement” is defined as the converse, i.e., 30 minutes or less spent reading the issue, read 1-3 out of the last four issues and rated the magazine less than top box.

### **Analysis by Element Reader Involvement by Demographics**

Readers categorized as high involvement are significantly older with a mean age of 48.21 years compared to 43.16 years for those with low involvement. Specifically, the high involvement readers are older (65+ years), whereas low involvement readers are skewed toward 18-29 years of age. Involvement also varies by gender, with high-involved readers being more female and low involved readers more male.

Low involved readers are significantly more likely to: work as full-time employees, be single, and be of an ethnic background, in particular African American. Compared to the low involved readers, those that have high involvement are more likely to be married and own homes, but also, unemployed (looking for work), and retired. Low involved readers are also apartment dwellers with a significant number living in the Midwest while, high involved readers are living in the Northeast and Western states. There is no significant difference between high and low involvement readers in average household income.

### **Demographic Comparison of High vs. Low Involvement Readers**

<b>Demographics</b>	<b>High Involvement (A)</b>	<b>Low Involvement (B)</b>
Male	35	41 <sup>a</sup>
Female	65 <sup>b</sup>	59
Mean Age	48.21 <sup>B</sup>	43.16
Some college or less	70	66
Graduate college or more	30	34
White	82	80
<u>Ethnic (net)</u>	<u>18</u>	<u>20</u>
Black/African American	6	9 <sup>a</sup>
Hispanic	10	7
Other, non-Hispanic	3	5
Mean Income (in thousands)	\$60.2	\$59.7
Working	57	69 <sup>A</sup>
Not working	41 <sup>B</sup>	28
Married	57 <sup>b</sup>	62
Not married (net)	33	38 <sup>a</sup>
Single, never married	16	24 <sup>A</sup>
Average household size	2.10	2.05
Children in household	31	38 <sup>a</sup>
Own household	74 <sup>b</sup>	68
Rent household	22	25
Northeast	24 <sup>b</sup>	18
Midwest	19	27 <sup>A</sup>
South	33	37
West	25 <sup>b</sup>	19

Upper case significant at 95% and lower case significant at 90%

### **Reader Involvement by Magazine Reading Propensity**

Readers were shown images of twenty leading magazine titles and asked to select those magazines that they had read or looked into in the past six months. Based on the 1,044 respondents that qualified for the study, the mean number of magazines read or looked into is almost identical for high and low involved readers (4.92, 4.75 respectively). There is, however, a difference in involvement level for weekly or monthly magazine readership. High-involved readers are significantly more likely to have read

a monthly magazine (92% vs. 87% for low-involved), while low-involved readers are significantly more likely to have read a weekly magazine (80% vs. 86% high-involved). And, a significantly greater number of high-involved readers read or looked into more monthly magazines, whereas the opposite is seen with low involvement readers who read more weekly magazines.

Involvement Level	# of Weeklies Read	# Monthlies Read	Total Mags Read
Total Readers	2.03	2.34	4.83
High (A)	1.89	2.49 <sup>B</sup>	4.92
Low (B)	2.16 <sup>A</sup>	2.21	4.75

Upper case significant at 95% and lower case significant at 90%

### Reader Involvement by Magazine Issue Frequency

After determining readership of the top twenty magazines, respondents were randomly assigned to a selected magazine based on their readership of the specific five magazines and corresponding issues tested in the study. Of the 1,044 qualified respondents, 603 respondents were assigned to a monthly magazine<sup>1</sup> and 441 to a weekly magazine<sup>2</sup>. Those assigned to a monthly magazine have significantly higher involvement than those assigned to a weekly magazine. Over half of the readers of the monthly magazines show high involvement whereas only slightly more than one-third of weekly respondents are highly involved readers.

Involvement Level	Monthlies (A)	Weeklies (B)
High	57% <sup>B</sup>	36%
Low	43%	64% <sup>A</sup>

Upper case significant at 95% and lower case significant at 90%

### Reader Involvement by Recency of Reading Issue

Readers with high involvement are significantly more likely than those with low involvement to have read the most recent weekly and monthly magazine issues. Sixty-two percent of readers with high involvement read the most recent issue of a weekly magazine<sup>3</sup> in comparison to 45% of those with low involvement. Seventy-two percent read the most recent issue of a monthly magazine<sup>4</sup> in comparison to 44% with low involvement. Results are similar for those who read the most recent two and most recent three issues of both weeklies and monthlies.

High involvement readers are also considerably more likely to have read a weekly magazine in the last seven days and a monthly magazine in the last 30 days. The opposite is seen for low involvement readers who are significantly more likely to have “not” read a weekly magazine in the last 7 days and have “not” read a monthly magazine in the last 30 days.

This is no surprise since the key factor in the definition of highly involved readers is their readership of four out of the past four issues. The implication of these findings is that high-involved readers are more eager to read new magazine issues as they become available, suggesting the potential that motivation for reading is different for high- versus low-involved readers.

### Reader Involvement by Frequency of Reading

Similarly, readers with high involvement read magazines more frequently - 51% of high involvement readers read four out of every four weekly issues and 68% read four out of every four monthly magazines which is significantly more than those with low involvement. Low involvement readers tend to only read 1 to 2 of the last for four weeklies (76%) and 1 to 2 of the last four monthly (69%) magazines published.

<sup>1</sup> Survey assigned monthly magazines were Reader’s Digest, Better Homes and Gardens or National Geographic.

<sup>2</sup> Survey assigned weekly magazines were People or TV Guide.

<sup>3</sup> “Weeklies” asked about were People, TV Guide, Newsweek, Time, U.S. News and World Report, Sports Illustrated and The National Enquirer.

<sup>4</sup> “Monthlies” asked about were Reader’s Digest, Better Homes and Gardens, National Geographic, Good Housekeeping, Ladies’ Home Journal, Southern Living, Parents’ Magazine, Cosmopolitan, Maxim, Martha Stewart Living and House & Garden.

Although readers of weeklies tend to be less involved overall, the readers who are more involved are the ones who read every issue available, as illustrated below:

<u>Average readership magazine issues published</u>	<b>High Involvement (A)</b>	<b>Low Involvement (B)</b>	<b>Total Readers</b>
Read 4 of last 4			
Weekly magazine	51 <sup>B</sup>	17	33
Monthly magazine	68 <sup>B</sup>	18	42
Read 3 or 4 of last 4			
Weekly magazine	57 <sup>B</sup>	27	41
Monthly magazine	75 <sup>B</sup>	32	53
Read 1 or 2 of last 4			
Weekly magazine	57	76 <sup>A</sup>	67
Monthly magazine	49	69 <sup>A</sup>	59

Upper case significant at 95% and lower case significant at 90%

### Reader Involvement by Non-MRI Involvement Measures

In addition to surveying readers on their involvement with the magazine based on the nine MRI measures, the survey included two additional questions which, although not found to be strong predictors of unaided ad recall, do provide us with additional information on the relationship the reader has with their magazine.

#### 1. How soon read or looked at magazine issue after obtaining?

Over ninety percent of total respondents have read or looked at the selected magazine issue within a week of obtaining the issue and high-involved readers are significantly more likely to do so (96% high involvement as compared to 90% low involvement). In contrast, more low-involved readers read or looked into the issue 2-3 weeks after obtaining the issue as compared to those with high involvement (8%, 3% respectively).

These findings, although intuitive, offer further insight into the reader – magazine relationship.

<u>Involvement Level</u>	<b>Read Within a Week</b>	<b>Read 2-3 Weeks After</b>
High (A)	96% <sup>B</sup>	3%
Low (B)	90%	8%

Upper case significant at 95% and lower case significant at 90%

#### 2. Main reason why read magazine issue?

High involved readers are significantly more likely to read a specific issue as a vehicle for “escape, taking a break from life, relax,” “news, stay informed, education,” and “advice, tips, how-to” than are low-involved readers. Whereas, low-involved readers significantly indicate they read a specific issue primarily to fill time (“just needed something to read, filling time”) and because of cover appeal.

Not surprisingly, “filling time” and “cover appeal” are less engaging reasons for reading (prominent for low-involved) whereas more engaging motivators (such as “staying informed” and “advice”) or times with fewer distractions (“escape/take a break from life/relax”) are leading reasons with those that are high involved readers.

<b>Main reason why read magazine</b>	<b>High (A) Involvement</b>	<b>Low (B) Involvement</b>	<b>Total Readers</b>
Just needed something to read/filling time	14%	35% <sup>A</sup>	25%
Entertainment/Celebrity/Humor	16	12	14
Escape/Take a break from life/relax	17 <sup>B</sup>	10	13
News/Stay informed/Education	17 <sup>B</sup>	6	12
Cover appealed to me	4	14 <sup>A</sup>	9
Advice/Tips/How-to	11 <sup>B</sup>	5	8
Shopping/Browsing	1	2	2
Advertisements	1	0	1
Other	6 <sup>B</sup>	3	4

Upper case significant at 95% and lower case significant at 90%

**PART III:  
IMPACT OF CREATIVE STRENGTH AND AD POSITIONING ON AD RECALL/ READER INVOLVEMENT**

**Background and Objectives**

The goal of the main involvement study was to demonstrate a clear relationship between reader involvement and ad recall – the final model explained 15.4% of unaided ad recall. The goal was not to explain or uncover all of the variables that contribute to ad recall – we’ll save that for another study! One key element that clearly plays a role in generating ad recall was not included as a variable --- the quality of the ads themselves. This variable was not included primarily to manage respondent burden and avoid an excessively long survey, but also because, as stated earlier, our goal was to establish a correlation between reader involvement and ad recall, not explain all the drivers of ad recall.

However, since the creative strength certainly plays a role --- and to our dismay, we learned that the majority of ads hadn’t been copy tested prior to running --- the *Involvement Alliance* commissioned a separate project to assess the impact of ad quality on ad recall. The goal was to obtain quality ratings of the ads used for the involvement project (using standard copy test indicators), and to begin exploring the relationship between other ad placement/density measures (e.g., placement of ad with respect to pages into issue, percent of total pages in issue which contained ads). Thus, the prime objectives of this research were:

- To test the 60 unique ads used in the main study on creative measurements: attention, communication, believability, persuasion and appeal.
- To use the results in conjunction with the results of the main study to measure the creative impact on recall as determined in the main study.

**Methodology**

Knowledge Networks has a Web-enabled panel that is a national probability sample of U.S. households, both those with home Internet access and those without home Internet access. Thus, the panel can be reliably projected to the U.S. population. At the same time, because Knowledge Networks’ panelists complete their surveys online, they can view images of the actual ads that run in magazines.

The copy test study was conducted among recent magazine readers. Respondents were asked to select magazines that they had “read or looked into” in the past six months; if the respondent had not read or looked into a magazine in the prior six months, the interview was terminated. Those who had selected a magazine were randomly shown 20-21 of the 60 unique images (see appendix for list of ads) of the ads that were used in the main study of the research.

*Five questions were asked per ad that consisted of:*

- Ad attention (“If you were reading a magazine, how much does this advertisement get your attention?”)
- Ad “main message” communication (“How well does this ad communicate its main message?”)
- Believability of ad (“How believable is this ad to you?”)
- Persuasive (“If you were in the market for this type of product, how much would this ad persuade you to buy it?”)
- Ad appeal (“How appealing is this ad to you?”)

**Sample and Field Work**

The sample for this study consisted of 326 Knowledge Networks’ panel members who had read or looked into a magazine in the past six months. The survey was initially assigned to a randomly drawn sample of 800 panelists.

The selected panel members were invited to participate in the survey via e-mail on April 9, 2003. After two weeks in the field, the study was closed on April 23 and the data was sample-balanced to the U.S. Census. The disposition of the initial sample is shown below:

Initial sample assigned	800
Responded to the survey	452 (57% of 800)
Qualified and completed survey (i.e., read one of the top 20 magazines in the past six months)	326 (72% of 452)

The median amount of time it took qualified panelists to complete the survey was 11.3 minutes.

## Analysis

In order to conduct the analysis, we fused the data from the Main Involvement Study and the Copy Test Study by aggregating the results from each study at the *ad-level* and then merging the two data sets. In other words, we averaged unaided and aided recall across respondents from the Main Study and then merged these results with the average ad quality scores across respondents from the Copy Test Study. In addition, we coded each ad and its associated magazine on numerous dimensions, including:

- Ad Product Category
- Ad Location
- Ad Position
- Size Of Magazine
- Clutter (Ad / Edit Ratio)
- Recency of Issue Reading
- Magazine Format

Utilizing the fused and coded data set, statistical analyses were conducted in three areas:

1. How is unaided and aided recall impacted by the strength of copy (composite and/or individual components)?
2. Which product categories have ads which are more likely to be recalled?
3. What impact do magazine & ad characteristics have on the ability of the ad to be recalled (e.g., positioning, recency?)?
4. Finally, is there a difference in recall (using the above three variables) between readers that are highly involved versus those with low reader involvement?

Note that the analysis to assess the relationship detailed above is an ad-level analysis. That is, the sample size is  $n = 65$ . (60 unique ads plus five ads that were tested in two different issues in the original study.) Due to the relatively small sample size, we address the results of the analysis from a directional perspective only and note the significance levels of the findings.

To address each issue above, we created a series of categorical variables for the “independent” variables - ad quality, and ad and magazine characteristics. In addition, we created a binary variable for the “dependent measure” ad recall - above average recall versus below average recall. We then cross-tabulated each “independent” variable with the “dependent” and tested the resulting association using standard Chi-Square tests for multi-way tables.

### 1. How is unaided and aided recall impacted by the strength of copy (composite and/or individual components)?

#### Composite

There is a directional association (chi-square statistic significant at 75% confidence level) between ads with strong copy test scores and ads that were recalled on an unaided basis. It follows that in order to maximize ad recall, the ad must not only be strong creatively, but --- as we learned from the main study --- also be placed in an environment with involved readers.

To examine the relationship between ad quality and its impact on unaided recall, we summarized the disposition of the ads from the perspective of the overall quality index and indexed unaided recall. Ad quality was divided based on the standard deviation around its index. Since the distribution was tight for unaided recall, we divided the data above and below the mean.

- Ad Quality Index Mean = 100; Standard Deviation = 14
- Unaided Recall Index Mean = 100; Standard Deviation = 3

As shown in the table below, there appears to be a deterioration in unaided recall as ad quality declines. High quality ads are much more likely to have unaided recall over the average than are low quality ads (57% and 29%, respectively).

**Disposition of Ads Performance on Quality and Recall\***

	<b>High Ad Quality Index <math>\geq 114</math></b>	<b>Moderate Ad Quality <math>86 \leq \text{Index} &lt; 114</math></b>	<b>Low Ad Quality Index <math>\leq 86</math></b>
Ad Recall Index $> 100$	57%	45%	29%
Ad Recall Index $\leq 100$	43%	55%	71%

\*Directional at 75% confidence level.

### Individual Copy Components

The most compelling factor in maximizing unaided recall is the ad’s believability and ability to communicate its main message – 64% of ads that scored high in the copy test as “believable” garnered above average unaided recall. Only 40% that scored below average in their “believability” ranking have above average unaided recall. In other words, the ads most likely to be recalled were ones that were believable and able to communicate their main message clearly.

**% Ads with Above Average UNAIDED Recall**

Copy Strength	High	Medium	Low
Believable*	64	41	40
Main Message Communication	62	41	45
Overall Copy Score*	57	45	29
Got your Attention	55	38	60
Appeal	53	41	50
Persuade you to Buy	50	45	46

\* Directional (75%+) for “believable” and “overall copy score;” not significant for other factors.

Conversely, the fact that the ad got the respondents attention tops the list of ways to generate aided recall. 73% of ads scoring high on this metric also were recalled when prompted with a visual reminder of the ad. Whether the ad was believable ranked last in terms of aided recall – the opposite of the findings among respondents who recalled it without a written or visual reminder.

**% Ads with Above Average AIDED Recall**

Copy Strength	High	Medium	Low
Got your Attention*	73	44	47
Persuade you to Buy	64	42	54
Overall Copy Score	64	41	57
Main Message Communication	62	44	55
Appeal	59	38	63
Believable	57	46	50

\* “Got your Attention,” significant at 90% confidence level.

### 2. Which product categories have ads which are more likely to be recalled?

What type of ads are most likely to be recalled? According to the data collected from the 65 ads included in this study, Home & Garden ads (such as Andersen Windows) and Technology (such as Apple or Canon) ads are most likely to be recalled both on an unaided and aided basis. The ads least likely to be recalled are ads in the Food category, such as Oscar Mayer or Crystal Light.

This data leads us to conclude that ads in cluttered categories without much differentiation have a more difficult time standing out than ads that offer unique product attributes/services or limited competitors.

**Percent of Ads by Category with Above Average Unaided Recall**

Components of Copy Strength	% Ads w/Above Average Unaided Recall
Home & Garden/Tech*	86
Personal Care	57
HH Products	50
All Other Ads (Auto, Pets, Entertainment, Other)	33
Food	33

\* Significant (98%+) for H&G/Tech and directional (85%+) for all other categories.

### 3. What impact do magazine characteristics have on the ability of the ad to be recalled (e.g., positioning, recency of reading)?

In addition to assessing the relationship between the various product categories and recall, we also looked at specific magazine characteristics that could have an impact on the readers’ ability to recall an ad. As you can see from the chart below, some differences were significant, while others had little impact in generating unaided awareness.

- First half or second half ad positioning
  - Counter to most recent research, front of book positioning (at least in the five magazines included in the study) resulted in significantly higher unaided ad recall.



- Right or Left, Spread
  - Not surprisingly, spreads were most likely to get the highest ad recall. However, right or left had positioning made no difference.
- Size of Magazine
  - Contrary to popular belief, magazines with more pages (150+) had a greater percentage of ads that were recalled (57%).
- Ad/Edit Ratio
  - Magazines with fewer ads (<20% ads vs. 20%+) and a greater percent of editorial pages provided a better environment for ads to be recalled.
- Issue Recency
  - Ads were equally likely to be recalled if they ran in the most recent issue as they were in the previous issue
- Physical Size of Magazine
  - Ads were equally likely to be recalled if they ran in a digest vs. a standard size magazine format.

#### Impact of Magazine Characteristics on Unaided Ad Recall

Magazine/Ad Characteristics	Level	% Ads w/Above Average Unaided Recall	
		% Of Ads	Significant?
Location in Magazine	First Half	58	Yes
	Second Half	23	
Ad Position	Right	45	No
	Left	53	
	Spread	75	
Size Of Magazine	150+ pages	57	Directional
	<150 pages	37	
Clutter (Ad / Edit Ratio)	Less than 20% Ads	57	Directional
	20% + Ads	37	
Recency of Issue Reading	Read most recent issue (April)	53	No
	Read least recent issue (March)	40	
Magazine Format	Digest Size	41	No
	Standard Size	50	

Significance is 90%+ confidence level, Directional is 75%+No = < 75%

#### 4. Finally, is there a difference in recall between readers that are highly involved versus those with low reader involvement?

We also examined the difference between high and low involvement readers' unaided ad recall using the same variables as above (copy strength and magazine characteristics).

- High-involvement is defined as: 31 minutes or more spent reading the issue, read four-out-of-four of last four issues, and had top box favorability ratings.
- Low-involvement is defined as the converse, i.e., 30 minutes or less spent reading the issue, read 1-3 out of the last four issues and rated the magazine less than top box.
- This definition is consistent with the definition used in the previous study.

For the ads tested, the quality of the ad has a stronger impact on low-involvement readers than highly involved readers. In fact, the copy scores had very little impact on the high involvement readers' ability to recall an ad. For the low involvement reader, however, the copy score was more important. Low involvement readers were significantly more likely to recall an ad that "got their attention" and was "believable." The overall copy score (a composite of the five measures) also significantly increased the chance the ad was recalled by the low involvement reader.

The implication of these findings for copy testing and media placement is an important one. If the magazine selected for the media plan has low reader involvement, then the ad quality becomes an even more important factor in order for the ad to be recalled. Conversely, to readers that are highly involved with the magazine, the strength of the copy plays less of a role in their ability to recall it on an unaided basis. Therefore, an ad in a highly involved magazine environment is more likely to be recalled, regardless of the ad quality. The combination of high involvement and strong creative is clearly the best option.

**Relationship Between Ads with Above Average UNAIDED Recall  
And Ads Scoring High on Copy Strength Components**

Copy Strength	Involvement Level	
	High	Low
Got your Attention	Directional	Yes
Persuade you to Buy	No	Directional
Overall Copy Score	No	Yes
Main Message Communication	No	Yes
Appeal	No	Yes
Believable	No	Yes

Yes = 90% confidence level, Directional = 75%+

In contrast to the impact of copy scores, there appears to be little difference between the impact of the magazine characteristics on high involved vs. low involved readers. Specifically, first half positioning has a significant impact and clutter has a directional impact on both types of readers. However, ad positioning (spreads and right hand pages) appears to influence ad recall more for high involvement readers, at least directionally.

**Relationship between Ads with Above Average UNAIDED Recall  
And Ads Scoring High on Certain Magazine Characteristics**

Magazine/Ad Characteristics	Level	Involvement Level	
		High	Low
Location in Magazine	First Half	Yes	Yes
Ad Position	1. Spread 2. Right 3. Left	Directional	No
Size Of Magazine	150+ pages	Yes	No
Clutter (Ad / Edit Ratio)	Less than 20% Ads	Directional	Directional
Recency of Issue Reading	Recent /Past Issue	No	No
Magazine Format	Digest Size/ Standard Size	No	No

Yes = 90%+ confidence level, Directional is 75%+, No = less than 75%

**Conclusions and Implications**

While the sample size for this study is limited by the number of ads and magazines analyzed, there are nonetheless some intriguing preliminary implications of this research. The previous study clearly demonstrated that high-involved readers have higher unaided ad recall overall. The findings presented here indicate that ad quality becomes even more important for a low-involved audience. The implication of these findings for copy testing is an important one. If the magazine selected for the media plan has low reader involvement, then ad quality becomes even more important for the ad to have a chance to be recalled.

In contrast, magazine characteristics (such as size of magazine and ad clutter) affect both the high and low involvement readers' ability to recall ads equally.

The need and interest exists to provide additional research to bring more clarity to the relationship between ad quality and reader involvement.

**APPENDIX**

- **List of Advertisements Studied**
- **Main Reader Involvement/Ad Recall Report**

List of 60 unique advertisements that were included in the main study.

<b>Advertisement</b>	<b>Advertisement Description</b>
3 Musketeers	Dog holding a fluffy pair of white slippers
3 Musketeers	A red bicycle, 'light and fluffy' white seat and a candy bar cut open on bottom
Altoid Sours	Boy hanging from a hook by his underwear getting a 'lemon wedgie' holding tin of candy
Andersen Windows	Table and two chairs in front of floor to ceiling French doors and windows
Andersen Windows	Man dressed in black sitting in a room lit by sun streaming in from floor to ceiling windows
Apple	Aerial view of two silver side-by-side laptop computers
Baby Ruth	Beer-belly man in a tee shirt holding silver cable
Beef Council	Beef squares on a skewer of being dipped into sauce
Beef Council	Close-up beef steak on a plate. 'Why space aliens steal our cows?'
Brita*	White timer on the top and a pitcher with water at the bottom
Canon	Photo of a South American Tamarin monkey sitting in a tree
Canon	Photo of an Asian leopard standing on a branch of a tree
Catfish	Illustrated close-up of a catfish appearing to swim towards a dish of food meal
Clorox Ready Mop	White mop, red text mop system, cleaner and pad next to each blue product feature
Colgate	Pancakes and orange juice on the top half with a tube of toothpaste across the bottom
Colgate Toothbrush	Woman getting a massage; toothbrush with massaging brush features
Crest Whitestrips	Woman painting her nails and with product shot/instructions
Crest Whitestrips	Woman riding an escalator and product shot/instructions on right
Crystal Light	Images of women over-laid on an orange background with refreshing droplets
Crystal Light	Images are laid over a pink background with refreshing droplets
Crystal Light	Images laid over a bright yellow background with refreshing droplets
Curvation Bras	Congratulating the Oscar nominated celebrity, Queen Latifah
Dawn Power Dissolver	Foam sprayed on burner cover, mom and children watching TV and grease being rinsed off
Eukanuba	Dog pulling a woman in a wheel chair and two horses in the background
Febreze	Time elapsed images of a woman moving around a room, spraying furniture
Ferrero Rocher	Gold wrapped chocolates stacked inside an open blue mailbox with a red flag up
Glad	White garbage bag that is split open and the contents are spilling out
Hidden Valley	Asian child in a cowboy hat, holding dressing bottle
Hill's Science Diet	Cat outside on the lawn tearing open a bag of dry food to eat its contents.
Iams	Young girl sitting outside smiling as she hugs two puppies
Iams	Child peering from behind a door at a kitten, product shown at bottom
Jell-O	Giant red question mark made of jello and the package as the period underneath
Kashi Good Friends	Man and woman jumping in 'tee-shirts of 8g' and 'fiber', product to the right
Kia Sorrento	Mirror image of two mid-sized Sport Utility Vehicles with product features at bottom
Kudos Fruit & Nut Bars	Cartoon depiction of a boy standing on several boxes with his arm on his mother's shoulder
Lever 2000*	Two bare adult feet and a baby holding onto one of them
Lysol	Cartoon image of a red-nosed child holding a tissue and a faucet being sprayed with disinfectant
Mazda 6	A silver car facing you and car product features written in white text at the bottom
Microsoft	Photo of a woman looking at a run down house, superimposed with a chalk drawing
Nicorette Commit	Box of stop smoking lozenges in the center, product details at the bottom
Noxzema	Close up picture of a woman's face with pursed lips poised for a kiss
Oil of Olay	White feather and a bottle of moisturizer, both appearing to be floating among clouds
Orbitz	Illustrations of various travel destinations, using an orange and blue retro design
Oscar Mayer	Close-up of ham and cheese sandwich on a roll, package of ham at the bottom
Oscar Mayer*	Close-up of ham and cheese sandwich and a box of the product at the bottom
Poise	Woman dressed in dark colors, leg bent looking into the camera
Purina TidyCat	Four cats looking over a litter box

Ritz Crackers	Snowman made of crackers, cream cheese, a cookie hat and pretzels as arms
Scott Tissue	Man skydiving with a roll of toilet tissue, streaming from a plane
Scott's Lawn	Boy laying, man leaning on a fence and kids hopping in potato sacks on a plush green lawn
Secret	Deodorant on a table in front of a woman waiting for a massage
Secret*	Stick of deodorant on a table; candle, sponge, towels and rocks
Smucker's	Jam covered piece of whole wheat bread on a plate
The Ten Commandments	Movie cover on a box and two DVD's sticking out of the right side against a sandstone background
The Wild Thornberry's	Two cartoon characters featured in the movie swinging and movie cover pictured on left
TIAA-CREF	Ellis Marsalis playing the piano
Tropicana	Strainer with ice dropping into it held above a giant glass of orange juice
Vaseline Intensive Care	Circle of hands with fingers spread surrounding a tube of lotion
Velveeta Potatoes	Close-up of a large fork of cheese covered "Au Gratin" potatoes
Wrigley's*	Puppy sitting on the floor next to a bed surrounded by a woman's shoes

\* Indicates duplicate ad appeared in another magazine/issue.

# MAGAZINE INVOLVEMENT / ADVERTISING RECALL STUDY - FINAL REPORT

*June 13, 2003*

Prepared by: Knowledge Networks for the Magazine Involvement Alliance

Agencies are focusing more intensely on media plan ROI and the relative value of each media vehicle as a result of the continuously increasing level of clutter in the marketplace. Over the past year, the Involvement Index (presented June '02 at the WAM in Cannes) has been widely embraced as a breakthrough that enables qualitative data to be effectively incorporated into the planning and buying process. It has also sparked a debate over the "best ingredients" for the Index, along with lingering questions as to the quantifiable impact of reader involvement on ad recall. This is the challenge being addressed with this paper.

An Involvement Alliance of magazines<sup>5</sup>, led by *Reader's Digest*, sponsored a research project (through Knowledge Networks) with the objective of determining the extent to which the MRI involvement measures are related to recall of actual ads.

The objectives of the research study are 1) to evaluate the relationship between the magazine reading experience and the recall of ads in the magazine, and 2) to determine which elements of magazine involvement -- specifically, the nine elements measured by MRI -- are most strongly related to ad recall. Ultimately, this research will provide an updated and validated Involvement Index for use by the media planning community.

The study incorporates recall data for advertising recall from readers of five large magazine publications.

The sample for the study is 1,044 past six-month readers of *Reader's Digest*, *Better Homes and Gardens*, *National Geographic*, *People* and *TV Guide* conducted with the Knowledge Network panel. Based on readership of the March/April selected magazines, respondents are randomly assigned to a specific issue and asked their recall of five ads per issue in four different ways -- completely unaided, aided with a brand list, aided with a written description, and aided with a visual of the actual ad.

Advanced statistical modeling techniques assess the impact of involvement on ad recall. Based on this rigorous analysis, it is apparent that several of the involvement measures contribute significantly to the ability to predict ad recall.

- Logit models incorporating the nine involvement measures and four control variables are developed. The final model explains 15.4% of the unaided ad recall. (As a point of reference, a TV ad effectiveness study was able to explain only 12% of ad recall with executional factors.)
- Some the involvement measures contribute more strongly to predicting ad recall than others. The measures which have the strongest impact on unaided recall in these models are: 1) read all of last four issues, 2) time spent reading issue (above 30 minutes), and 3) Magazine Favorability ("one of my favorites").
- Combined, these three measures prove to be the optimal combination for the new Involvement Index.

These results suggest that there are significant links between the MRI qualitative measures and magazine ad effectiveness.

## BACKGROUND

In today's media environment -- with increasing numbers of media choices and increasing fragmentation within traditional media, combined with shrinking media planning departments and shrinking primary research budgets -- agencies believe that they need more information to enable them to differentiate between magazines in ways beyond the sizes of their audiences and circulation levels. In particular, agencies are increasingly seeking tools that will enable them to assess the magazines' abilities to connect with readers and generate attention to the advertising in their pages. It is widely believed that readers' experiences in reading a particular magazine -- their involvement with it and connection to it -- may be linked to the likelihood that they notice the advertising in it. However, until now, little research has been done to measure the strength of such a link.

Agency research on recall of television advertising supports this link in the broadcast world: Analysis of Nielsen's viewing "Quads" has suggested that the amount of time viewers spend watching a particular program and the frequency with which they watch it have a strong impact on those viewers' recall of the advertising in that program.

MRI collects and reports on nine "qualitative" measures of magazine reader involvement:

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<sup>5</sup> Involvement Alliance includes Reader's Digest, National Geographic, Smithsonian, FamilyFun, Guideposts, Golf Digest, The Family Handyman and Country Living.

1. *Frequency of reading* (number of issues read out of every four published)
2. *Location of reading* (whether in-home or various out-of-home locations)
3. *Source of copy* (subscription, newsstand, or other source)
4. *Reading days* (number of days read the magazine in the most recent publication interval)
5. *Time spent* (amount of time spent reading the magazine in the most recent publication interval)
6. *Actions taken* (whether the reader clipped any ads or recipes, sent away for information about advertised products, or took other actions as a result of reading the magazine during the most recent publication interval)
7. *Magazine rating* (scale from “poor” to “one of my favorites”)
8. *Interest in advertising* in the magazine (three-point scale, from “not much” to “considerable”)
9. *Average page exposure* (APX – a composite of reading days (#4), percent of pages opened on the most recent reading day, and number of issues of the magazine read on the most recent reading day. Intended to represent the number of times a reader is exposed to the average page of the average issue)

*Reader's Digest* proposed using these measures to create an Involvement Index that would enable planners to assess the “strength of one magazine’s reader connection over another,” as Britta Ware put it in her paper at the 2002 ARF-Esomar Conference. The original Involvement Index consisted of a combination of three of the MRI qualitative measures – read 4 out of 4 issues (#1), average time spent (#5), and rating as “one of my favorites” (#7). The advantage of using measures such as these to evaluate magazine involvement was that they are readily available to media planners. However, it was not currently known how well these measures (or others collected by MRI) are related to the effectiveness of advertising in different magazines. The Magazine Involvement Alliance launched a research project to begin to explore the relationship between these measures and recall of advertising in magazines.

## OBJECTIVES OF RESEARCH

The prime objectives of this research are:

- To evaluate the relationship between the magazine reading experience and the recall of ads in the magazine
- To determine which elements of magazine involvement -- specifically, the nine elements measured by MRI -- are most strongly related to ad recall

Knowledge Networks was commissioned to conduct the research on behalf of the Involvement Alliance. Knowledge Networks has an Internet-enabled panel which is a national probability sample of U.S. households, both those with home Internet access and those without home Internet access. Thus, its panel can be reliably projected to the U.S. population. At the same time, because Knowledge Networks’ panelists complete their surveys online, they can view images of the actual ads that run in magazines.

A pilot phase (conducted in late January among January and February readers of *Reader's Digest* only) was designed as a smaller-scale test version of the main study, with a smaller sample and a focus on a single magazine, rather than a group of magazines.

## QUESTIONNAIRE IMPLICATIONS FROM THE PILOT STUDY

The median amount of time respondents took to fill out the pilot questionnaire (14.9 minutes) did not exceed the length that is considered optimum for obtaining high-quality responses. However, a careful review was done of each pilot question and the order of the questions were evaluated to determine where, if needed, questions could be eliminated or rearranged to reduce survey length to further ensure high-quality responses.

As would be expected, the open-end questions in the pilot took more time for respondents to answer than the closed-end questions. Thus, open-end brand recall questions were asked only on those categories for which the respondent did recall ads in the selected issue and were not based on *any magazine* within the *prior two months*. This change would make the analysis of recall levels cleaner, because all of the recall questions would be about the same issue.

It was recognized that in the main study, respondents would be exposed to three fewer ads than in the pilot. The implication was that respondents in the pilot were asked at most 42 questions and in the main would be asked at most 33 questions. Given that the smaller number of ads will reduce the number of questions asked, there would be room for additional questions.

- How many of the last three (weeklies) / last two (monthlies) have you read based on those magazine read in the past six months?
- How soon after receiving this issue did you open it?
- Length of time respondent has read selected magazine at current frequency.
- Main reason why read selected magazine.

## DESIGN OF MAIN STUDY

The general design changes from the pilot to the main study were:

- To increase the sample size to obtain strong base sizes for *each* of the five target magazines and to achieve a larger robust dataset for more accurate analysis. The pilot study sample size was too small to be projectable.
- To implement and evaluate questionnaire changes/placement of questions as determined by the pilot study.
- To evaluate whether any other involvement measures or other questions might affect ad recall.

The main study was conducted with readers of the March and/or April issues of *Reader's Digest*, *Better Homes and Gardens*, *National Geographic*, *People* and *TV Guide*. These magazines were selected based on reaching the largest Adult 18+ audience, based on MRI data. Readers of multiple issues were asked about only one randomly selected issue. Images of the covers and five ads from each issue were shown in the body of the questionnaire as recall aids.

The ads were selected based on the following criteria:

- The ad had to have run in a national edition – not regional.
- The ad had to be sufficiently clear and sharp so that readers would be apt to recognize it if it were shown to them on a television screen.
- Ads that had run extensively in other magazines were avoided.
- Ads that were supplemented by TV campaigns were avoided.
- Ads ideally would be for a new product or campaign.

In addition to these five ads in each issue, a sixth “ghost” ad was selected which had only appeared in non-U.S. publications. Respondents were asked the recall questions about all six of the ads – the five that actually did appear in the issue they had read and the “ghost” ad – in random order. Respondents were not informed that the “ghost” ad had not actually appeared in the issue. The “ghost” ad was included to help us to identify respondents who tended to over-report their memory of ads.

## Questionnaire

The questionnaire for the main study was structured as follows:

1. Readership of the top 20 magazines (in audience) in the prior six months, using the magazines' logos; if the respondent had not read any of the five target magazines in the prior six months, the interview was terminated.
2. Readership of last three (weeklies) and/or last two (monthlies) issues of each magazine that “screened in.” (*not asked in pilot*)
3. Past seven day (weeklies) and/or twenty-one day (monthly) readership of each “screened in” magazine.
4. Frequency of reading (0-4 out of 4 issues) each magazine that “screened in.”
5. Readership of the March and April issues, using the issues' covers as memory aids: If the respondent had not read any of these issues, the interview was terminated; if the respondent had read multiple issues, one was selected at random. Given that two of the targeted magazines were weeklies, additional issues were included in the study. The survey period covered two weeks, each week the oldest weekly issue was dropped and the new issue added. Only *TV Guide* required the fourth issue to reach sample quota. The issues tested in the main study were:
  - Reader's Digest: March, April
  - Better Homes and Gardens: March, April
  - National Geographic: March, April
  - People: March 17<sup>th</sup>, March 24<sup>th</sup>, March 31<sup>st</sup>
  - TV Guide: March 15<sup>th</sup>, March 22<sup>nd</sup>, March 29<sup>th</sup>, April 5<sup>th</sup>
6. The nine MRI involvement questions, rephrased slightly so that they focused on the *specific* issue, rather than *average* issue (as done by MRI).
7. How soon after obtaining the issue the respondent read or looked into the magazine, and when the respondent last read the selected issue (which was embedded within the involvement questions because it fit well within the involvement battery). (*How soon read or looked into magazine' was not asked in pilot*)
8. Length of time respondent has read selected magazine at current frequency. Question was based on the response of the respondent's frequency of reading (0-4 out of 4 issues) of the selected magazine. (*not asked in pilot*)

9. Categories of products the respondent had seen advertised in the selected issue. The categories listed represented the six ads tested, including the “ghost” ad. In the pilot, respondents were first asked this question based on recall of categories in *any magazine* within the *prior two months*, then later asked about the recall of categories based on the selected issue. It was determined in the pilot that recall of categories in *any magazine* did not clearly contribute to the objectives of the study and had added a sizeable amount of time to the interview. Thus, the question on recall of categories based on *any magazine* was removed in the main study.
10. Open-end questions asking recall of the *brands* in those categories that the respondent reported seeing advertised in the selected issue (e.g. “What brands of candy bars have you seen advertised in the March issue of *Reader’s Digest*?”). This question was also altered from the pilot, where respondents were asked to recall brands in the category based on *any magazine* within the *prior two months*. The altering of the question was consistent with the removal of the category recall based on *any magazine* question.
11. For those categories that the respondent did recall advertising in the selected issue, recall of the *brands* in those categories that the respondent reported seeing advertised in that issue, aided by a list of brands within each category.
12. Written aided recall of each of the five ads in the selected issue, plus the “ghost” ad, based on a one-line description of each ad.
13. Visual aided recall of each of the five ads that appeared in the selected issue, plus the “ghost” ad, with the images of the actual ads shown as memory aids.
14. Main reason why respondent read selected magazine. This question was not asked in the pilot. It was included to determine if “relevance” to the reader could contribute in determining magazine involvement.

The aided recall questions (#12 and #13) were asked about each selected ad in the particular issue, plus the “ghost ad,” regardless of whether the respondent reported recalling ads for those brands in one of the prior questions.

The question in reference to the number of days since the respondent last read the issue was included in the questionnaire because this factor was expected to affect consumers’ memories of the ads in an issue, even though it is not a measure of magazine involvement.

### Sample and Fieldwork

The final qualified sample for this study consisted of 1,353 Knowledge Networks panel members who had read at least one March or April issue of *Reader’s Digest*, *Better Homes and Gardens*, *National Geographic*, *People* and/or *TV Guide*. The survey was initially assigned to a randomly drawn sample of 5,991 panelists<sup>6</sup>. The selection of the sample was guided by demographic distributions of target magazine readers, according to the MRI magazine demographics, along with estimated response rates by age group within the KN panel.

The selected panel members were invited to participate in the survey via e-mail on March 26, 2003. After fifteen days in the field, the study was closed on April 9<sup>th</sup>. The disposition of the unweighted sample is shown below:

Initial sample assigned	5991
Responded to the survey	3646 (61% of 5991)
Qualified and completed survey	1353 (37% of 3636)
Respondents who read magazines in the prior six months, based on those responding	
Reader’s Digest	870 (24% of 3646)
Better Homes and Gardens	650 (18% of 3646)
National Geographic	514 (14% of 3646)
People	1036 (28% of 3646)
TV Guide	532 (15% of 3646)
Recalled “ghost” ad (false positive)	263 (19% of 1353)
Read magazine “today” for first time	46 (3% of 1353)
Respondents used in analysis	1044 (77% of 1353)

<sup>6</sup> Due to the war in Iraq and the necessity to complete field prior to the releasing of newer issues of the target magazines, the study was assigned to a greater number of panelists than originally anticipated. The concern was that magazine readership could decrease by war coverage on television and in newspapers.



Respondents who read or looked into selected issue, based on 1353 respondents					
	March March 17 March 15	April March 24 March 22	March 31 March 29	April 5	Did not read or look into
Reader's Digest	436	329			361
Better Homes and Gardens	235	344			232
National Geographic	220	154			250
People	406	220	288		164
TV Guide	179	238	243	62	173

Respondents randomly assigned to selected magazine					
	March March 17 March 15	April March 24 March 22	March 31 March 29	April 5	Total
Reader's Digest	166	148			314
Better Homes and Gardens	99	180			279
National Geographic	112	75			187
People	162	61	103		326
TV Guide	59	86	80	22	247

The data were sample-balanced to the U. S. Census and weighted to demographic distributions on readership of each of the five magazines based on: gender, age, income, and region. Target demographic distributions were provided by *Reader's Digest*.

The median amount of time it took qualified panelists to complete the survey was 12.8 minutes, down 2.1 minutes from the pilot study.

## RESULTS OF MAIN STUDY

Of the 1,353 respondents who completed the survey, there were 263 or 19% who:

Were shown the "ghost" ad for the Discovery Channel and said that they had seen it in the selected issue, or  
Said that they had seen an ad for the Discovery Channel in that issue based on a description of the "ghost" ad, or  
Indicated that they had seen an ad for a cable network in the selected issue and identified the Discovery Channel as the network from a list of cable networks.

The data from these 263 "False Positive" respondents, as they are referred to here, were considered to be somewhat unreliable. Therefore, their data were flagged so that they could be handled appropriately during analysis.

Of the 1,353 respondents, there were 46 or 3% who:

Had read the selected magazine issue for the first time on the day of the interview

The data from the 46 respondents were also flagged so that they could be handled appropriately.

In the final analysis, the data from both the "False Positives" (263) and the "read first time today" (46) respondents were removed, bringing the sample for analysis to 1,044 respondents.

## Involvement Measures<sup>7</sup>

In general, respondent's involvement levels varied among the five magazines tested. Magazine readership of the selected magazines ranged from one-tenth to over a one-third reading four out every four issues that are published; and two-fifths to almost half reading at least three out of every four.

In total, the majority (55%) had picked up one of the five magazines on more than one day; the mean number of days was 2.3. They spent an average 40 minutes with at least one of the issues. There tended to be multiple reading locations --- more than half read the issue a) at home, b) outside the home, and c) at home as well as some other place.

Forty-three percent were subscribers or lived in the households of subscribers, a small number (7%) had bought the issue on the newsstand, and half neither subscribed nor were single-copy buyers (i.e. pass-along readers). Nearly a third called the magazine "one their favorites", while relatively few (18%) had taken any action as a result of reading the magazine.

<sup>7</sup> Data cited from cross-tabbed weighted data

## Recall Measures

Recall rates for the four different recall measures (aided with visual cue, aided with written cue, aided with brand list and unaided) are detailed in the crosstabs. As expected, unaided recall ranked lowest among the recall measures with only 7% correctly recalling a brand when asked to write in a brand for each recalled category. Overall, 9% recalled the correct brand when provided an aided brand list for each recalled category. There was a leap in recall when the respondents were asked recall brands with a written description (27%) and a greater leap when cued with a visual image of the ad (43%).

## Other Variables

The questionnaire also included questions about several other factors that might affect ad recall but which were not considered involvement measures. The frequency distributions of those measures, referred to as “covariates” are highlighted in Exhibit 3. The most salient data about these other variables were:

- Almost none of the respondents (1% to 4%) reported that any of the five target magazines was the only magazine they had read in the prior six months. Out of the top 20 magazines, ranked by audience, the average number that they acknowledged reading in the prior six-months, including the five magazines, was 4.9.
- None of the respondents read all of the thirteen issues tested.
- Overall, half had read the magazine issue they were asked about within a week prior to completing the interview. A much smaller proportion read the issue in closer proximity to the interview (10% read it the day before and 3% read it earlier that same day). This indicates that it would be far more difficult to conduct this research only among those who had read the magazine the prior day.

## STATISTICAL ANALYSIS OF RELATIONSHIP BETWEEN AD RECALL AND INVOLVEMENT

Advanced statistical methods were employed to accurately capture the relationship between involvement and ad recall. This analysis provided a stronger indication of the links between involvement and recall than simple descriptive statistics, because the analysis was based on a more thorough examination of the appropriate ways in which all of the measures should be coded in order to understand the underlying nature of the relationships between them.

- At the core of the analysis is a predictive model, which examined the impact of all of the involvement variables together so that the effects of each one can be calibrated in relation to the others.
- A visual summary of the analysis process and results is contained in the PowerPoint 2003 ARF/Esomar WAM Print Conference presentation. What follows is a recap of the statistical analysis.

## Formulate and Define Dependent Measures of Advertising Effectiveness

As described earlier, four composite measures of advertising effectiveness were created that reflect increasingly stronger measures of recall - the weakest measure being visually aided recall and the strongest measure being completely unaided recall. In order to optimize the robustness of the statistical analysis, each measure was recoded and collapsed into counts by respondent. For example, unaided recall is a count of the number of ads out of five that the respondent correctly recalled in all four ways (completely unaided, aided with a brand list, aided with a written description and aided with visual cue). In the end, unaided recall was the dependent measure used to develop the new Involvement Index as it provides the strongest indicator of ad effectiveness.

## Formulate and Define Involvement Measures

CART (Classification & Regression Trees) identified potentially more powerful transformations of the original involvement measures. To do so, CART split each original involvement measure at all possible values to find the value for which ad effectiveness was best explained. For example, the CART analysis of time reading the magazine indicated that 31 minutes was the optimum point to split this measure. Ad recall was much higher among respondents who read the magazine for 31 minutes or more versus those who read 30 minutes or less.

Exhibit 1 contains the questions as well as the definitions and values for each of the transformed involvement measures. Note that:

- “Read four out of four” magazines was the transformation that best maximized the impact of the frequency of reading question.
- “Read at home” was the best break for the “where read” question.
- “Three or more days” was the best break for the “number of days read” questions.
- “Read magazine 31 or more minutes” was the best break for how much time was spent reading.
- “Took any action” was the best transformation to the “result of reading.”
- “Primary reader” best illustrates “how the issue was obtained.”
- The midpoint of “percent of pages read” best transforms the “number of pages read.”
- “One of my favorites” or top box for the “overall rating” of the magazine.

- “Considerable interest in advertising” or top box best illustrates “interest in magazine ads.”
- Page exposure above .25 best defined the “number of days” and “percent of pages” read (Average page exposure).

The two non-MRI involvement questions were also categorized and then included in the analysis (see Exhibit 1). “Read the same day” was the best illustration of “how soon” the magazine was read and “have read magazine at this frequency for more than six months” was the best break for “how long read magazine at current frequency.”

In addition to the involvement variables, three covariates were included in the model to control for other factors that are related to ad recall other than involvement. The covariates are listed in Exhibit 2.

The analysis was conducted in two ways: 1) with “False Positive” respondents included in the analysis, and 2) excluding these respondents. In the case of the first analysis, any recall of the “ghost” ad was treated as an additional (fourth) covariate. While the results were based on excluding the “False Positives,” it should be noted that similar results were obtained when they were included.

### **Assess Percent Contribution of Involvement Measures to Unaided Ad Recall**

Each involvement measure was analyzed separately, controlling for the covariates by computing the contribution of each involvement measure using an Ordered Logit model. Those measures that contributed at least 1.5% to ad recall were selected as the best “candidates” for inclusion in the new Involvement Index. Exhibit 3 displays the involvement measures ranked by their individual contribution to unaided ad recall.

The five involvement measures that contributed 1.5% or more to unaided recall were:

- Read 4 out of 4 issues
- Read 31 or more minutes
- Top box favorability - “one of my favorites”
- Read magazine at home
- Looked into magazine for 3 or more days

### **Selecting and Validating Measures of Involvement to be Included in Involvement Index**

This step involved testing and re-testing to ensure that the model would be robust in predicting unaided ad recall in the future. We developed Ordered Logit models with the best candidates from the Ordered Logit model (previous step). The goal was to find the combination of variables that contribute most to explaining unaided ad recall, controlling for the covariates. We then validated the involvement measures tested in these models by re-running the models on 500 bootstrap samples of over 1,000 records for each dependent measure. We found that three involvement measures were consistently strong predictors of unaided ad recall:

- Read 4 out of 4 issues
- Read 31 or more minutes
- Top box favorability - “one of my favorites”

Interestingly, these three measures are derivatives of the three MRI measures that are currently used in the Involvement Index (read 4 out of 4, average time spent and top box favorability).

### **Derive Involvement Index and Calculate Contribution to Ad Recall**

#### *New Involvement Index*

Finally, these three measures were synthesized to derive the optimal Involvement Index. The new Index weights are as follows (Exhibit 4)

- Read 4 out of 4 issue: 0.51
- Read 31 or more minutes: 0.25
- Top box favorability - “one of my favorites”: 0.24

In other words, 51% of the new Involvement Index is based on “read 4 out 4 issues”, 25% is based on “read 31 or more minutes”, and 24% is based on “one of my favorites”. When “False Positive” respondents were included in the model, the weights of the Involvement Index were quite similar; 47% “read 4 out of 4”, 20% “read 31 or more minutes”, and 33% “one of my favorites”.

Relative to the current weighting of one-third to each of the MRI equivalents to these three measures, this Index gives more weight to frequency of reading and focuses on 31+ minutes rather than average time spent.

### **Value of Involvement Index in Explaining Unaided Ad Recall**

As shown in Exhibit 5, all of the measures analyzed contribute 15.4% to unaided ad recall. Roughly two-thirds (9.3%) are explained by the components of the Involvement Index, while 4.5% can be attributed to the covariates and 1.6% to the other involvement measures. Although there are very few points of comparison known, 15.4% compares favorably to the 12% that Steward and Furse reported (after modeling the effect of ad executional elements on ad recall and persuasion) in their comprehensive study of "How Advertising Works" in the TV arena.

As a second benchmark, the 9.3% explained by the new Involvement Index was compared to the contribution using the current Involvement Index that weights each of the three equivalent MRI measures equally. The contribution of the current Index is 6.5%. Hence, the new Index explains 43% more unaided ad recall than the current Index.

The impact in terms of lift in unaided ad recall was also calculated to better understand the new Involvement Index. Exhibit 6 shows that if a magazine scores high on all three components of the Involvement Index, the percent unaided ad recall potential is 20.7%. At the average levels of performance on all 3 components unaided recall would be 7.3%. Finally, poor performance on the three components would result in unaided ad recall of only 2.7%. Said differently, high involvement results in more than a twofold increase or lift in ad recall, whereas magazines that score below average on all three can expect to yield unaided recall levels well below normal levels. Exhibit 7 translates the actual lifts into indices – where 100 represents normal levels of unaided ad recall. Relative to an unaided ad recall Index of 100 for average performance on the Involvement Index, excellent performance results in unaided recall Index of 284, while poor performance results in an unaided ad recall Index of 37.

### **SUMMARY OF RESULTS**

These results were consistent with previous research --- more involved readership translates into higher levels of brand recognition. The results of the statistical analysis were similar to the original Involvement Index elements, but with increased emphasis on reader loyalty and on the break at 31 minutes vs. average time spent. Furthermore, it was found that most MRI qualitative measures did contribute positively to ad recall and effectiveness. However, some of these measures translate into increased unaided brand recall, while others translate into increased levels of weaker ad recall measures such as visually aided ad recall.

### **CONCLUDING REMARKS**

As stated in the beginning, the number one challenge for marketers is connecting with consumers and getting their attention. Although clearly this challenge needs to be addressed on many fronts, the Involvement Index provides a standardized measurement that connects reader involvement with increased ad effectiveness. This research validates the connection between increased reader involvement – in the form of the optimized Involvement Index --- and increased advertising effectiveness. Reader connection is of paramount importance in increasing the effectiveness of magazine advertising.

**EXHIBIT 1****INVOLVEMENT MEASURE DEFINITIONS**

<b>Question:</b>	<b>Definition/Transformation:</b>
S5-S6. Number of issues read out of 4	S5-S6. Read all four issues
Q1. Where you read or looked into the magazine?	Q1. Read magazine at home
Q2. Number of days read this issue of magazine?	Q2. Looked into magazine for 3 or more days
Q3. Time spent reading that issue of magazine?	Q3. Read magazine 31+ minutes
Q4. Result of reading this issue of magazine	Q4. Took any action after reading
Q5. How did you obtain this issue of magazine?	Q5. Primary reader
Q9. Percent of pages read	Q9. Percent of pages read (midpoint)
Q10. Overall rating of the magazine	Q10. "One of my favorites" (top box)
Q11. Interest in magazine ads	Q11. Considerable interest in advertising (top box)
Q2*Q9. Page exposure	Q2*Q9. Page exposure above 0.25
<b><i>Experimental Measures</i></b>	
Q5a. How soon did you read the magazine?	Q5a. Read same day
Q12. How long have read magazine at this frequency?	Q12. Have read the magazine at this frequency > 6 months

**EXHIBIT 2****COVARIATES**

<b>Question:</b>	<b>Definition:</b>
S1. Out of twenty magazine titles, number recently read	S1. Number of magazines read out of 20
S7. Issues of magazines read	S7. Read all issues shown
Q6. Recency of reading this issue of magazine	Q6. Number of days since last read issue

**EXHIBIT 3**

**% CONTRIBUTION OF INVOLVEMENT MEASURES TO AD RECALL**

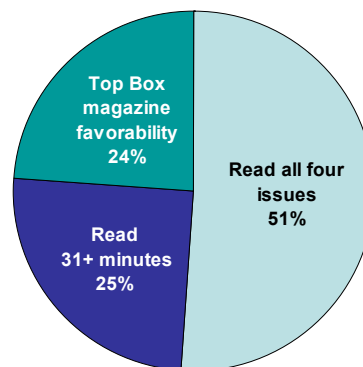
Involvement Measure:	% Contribution			
	Aided with Visual Cue	Aided with Written Cue	Aided with Brand List	Unaided
S5S6. Read all four issues	0.4	0.9	4.5	5.2
Q3. Read magazine 31+ minutes	1.5	1.9	2.8	2.9
Q10. "One of my favorites" (top box)	0.6	1.2	2.3	2.3
Q1. Read magazine at home	0.8	1.0	2.8	2.2
Q2. Looked into magazine for 3 or more days	1.4	1.5	2.4	2.2
Q5. Primary reader	0.6	0.7	2.1	1.3
Q4. Took any action after reading	2.2	0.8	1.2	1.1
Q9. Percent of pages read (midpoint)	0.2	0.2	0.2	0.5
Q2*Q9. Page exposure above 0.25	1.7	1.8	1.3	0.5
Q11. Considerable interest in advertising (top box)	1.0	0.9	0.4	0.3
<b>Experimental Measures</b>				
Q5a. Read same day	0.0	0.0	0.1	0.0
Q12. Have read at this frequency 6+ months	0.2	0.4	1.8	1.4

**EXHIBIT 4**

**PROPOSED INVOLVEMENT INDEX**

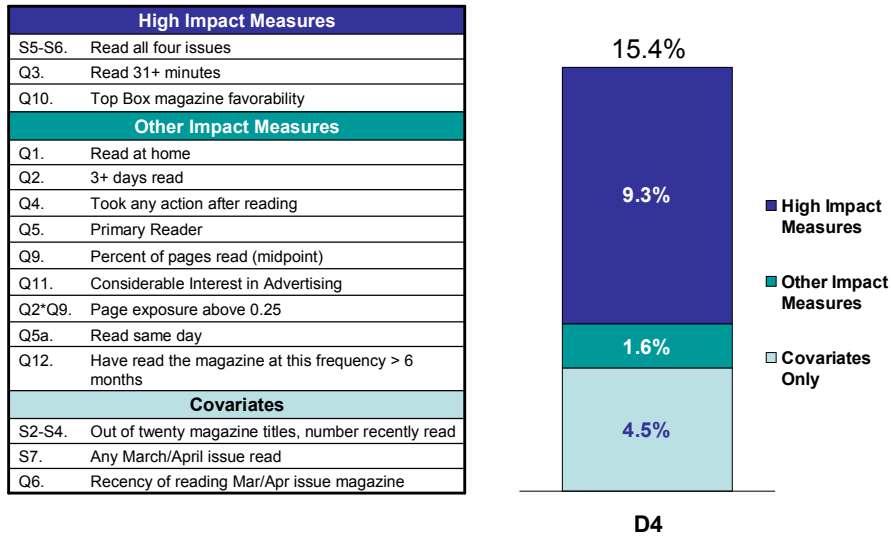
**Proposed Involvement Index weighting:**

- 51% Read all four issues**
- 25% Read magazine 31+ minutes**
- 24% Top Box magazine favorability**



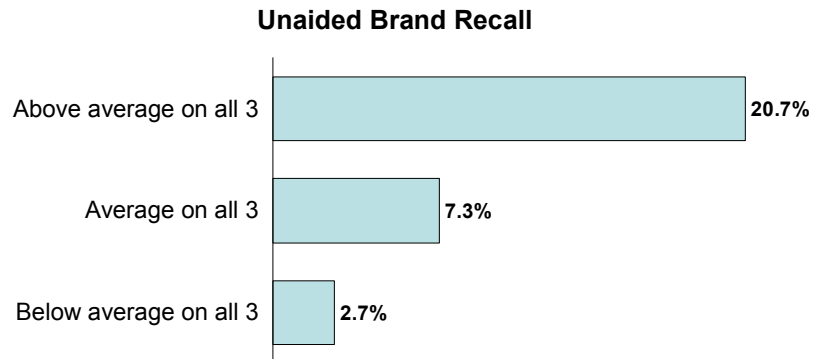
**EXHIBIT 5**

**CONTRIBUTION OF INVOLVEMENT MEASURES (UNAIDED RECALL)  
USING NAGELKERKE'S ADJUSTED R-SQUARE MEASURE**



**EXHIBIT 6**

**INVOLVEMENT INDEX IMPACT/LIFT**



**EXHIBIT 7**  
**INVOLVEMENT INDEX IMPACT/LIFT**

**Unaided Brand Recall Indexed to Average on All 3 Measures**

