

Rationale for Using Eye Tracking in Market Research Studies

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Summary

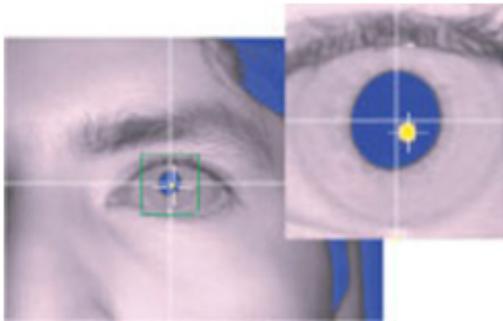
You may have heard of eye tracking before but never really understood how it works. In this paper we discuss the rationale for using eye-tracking in market research studies including:

- What is eye tracking?
- Why use eye tracking?
- What does it tell you?
- Eye tracking metrics
- How can it be used?
- Benefits and costs
- Do you need an expert to perform eye tracking?
- Implications and conclusions

What is Eye Tracking?

Electronic eye tracking involves a special camera mounted in a pair of glasses that projects a near-infrared beam through the cornea of the eye to measure the reflection of the pupil. The camera records these eye images and then uses a series of calculations to estimate where the pupil is looking.

Eye Tracking Glasses



This image illustrates what the eye tracking camera perceives when it is pointed at a human eye. Note the light/dark contrast between the pupil and iris of the eye. By tracking this visualization, the camera can precisely measure where someone looks.

Why Use Eye Tracking?

Eye tracking allows researchers to examine exactly what observers are focusing on, and for how long, without having to “guesstimate” what they looked at, or rely on inaccurate self-recall of behavior.

Eye tracking captures precisely where shopper’s eyes move and what they fixate on, and allows assessment of exact product viewing and scanning behavior.

Eye tracking identifies:

What stands out.

How environment/stimuli shape scanning patterns.

What shoppers fixate on (i.e., engagement).

What does Eye Tracking tell you?

Eye tracking provides a sensitive and real-time behavioral index of ongoing visual and cognitive processing. Eye tracking may be used to investigate where an observer's visual attention is allocated, and what specific stimuli engage attention by examining various metrics, such as: fixation count, viewing/dwell time, and scan sequence patterns.

Importantly, eye tracking measures subconscious behavior that would be difficult, if not impossible, to accurately record using traditional research methods, such as explicit survey questionnaires. Eye tracking is a more natural and realistic research method. Recall based questionnaires do not accurately measure implicit or subconscious processing of behavior, since it is fundamentally difficult for people to recall hidden drivers of behavior. Eye-tracking is better than asking people to retroactively remember their exact actions, which would be more likely to elicit people stating what was most salient and what they (think they) remember best, rather than their precise scanning behavior. Thus, eye tracking can deliver more detail and more accurate insights for any behavioral investigation.

Eye Tracking Metrics

Some eye tracking metrics include:

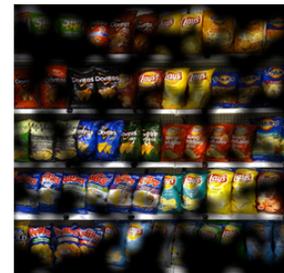
Heat Map:

Examines key areas that are visually fixated.



Opacity Map:

Measures break-through effectiveness of new package design and impact of adjacencies and shelf location on packaging design's performance.



Scan Pattern:

Evaluates initial fixation sequence and validates whether the product design was on the typical scan path.

was on the typical scan path.



% Who Viewed:

Measures noticeability and attention capture of new package design and reveals how adjacent packages affect test design's performance.

packages affect test design's performance.

What can Eye Tracking be used for?

Eye-tracking can be used in a wide range of research applications, including:

- Package design
- Planogram organization
- Store layout
- Point of sale (POS) displays and material
- Signage and pricing effectiveness
- Advertising/media design
- Flyer application
- Web site/online usability
- TV/computer platforms
- Mobile/personal devices
- Consumer decision tree (CDT) processes

Benefits and Costs

The benefits of eye tracking are that it is an affordable, non-intrusive and reliable metric of visual processing that allows you to analyze subconscious behavior. Its versatility means that it can be used in a wide range of research applications.

The costs are that it is somewhat time-consuming to analyze the richness of the data and expertly trained researchers are required to conduct the study.

Do you need an Expert?

Although eye-tracking can be an easier neuroscience tool to implement than other techniques (e.g., EEG, fMRI, etc.), the use of expert knowledge and experience is crucial to troubleshoot issues, design the proper methodology and record and analyze the intended data.

Experts are needed to:

Configure the equipment

Program the stimuli

Fix potential technical issues

Calibrate the participants

Record the data

Gather and filter the observations

Define and create areas of interest for analysis

Analyze the recordings

Determine the specific and ideal metrics for a particular study

Perform statistical analyses

Interpret the results

Explain the findings in a report

Eye-Tracking Implications and Conclusions

Eye-tracking provides an extremely rich source of behavioral data that dives into implicit and subconscious processing, which traditional research methods cannot provide.

Eye-tracking records detailed data points, and produces precise and accurate results, which would otherwise be impossible to evaluate, using observational data or self-recall.

Although eye-tracking incurs a slight cost to any project, the advantages of understanding sensitive nuances to human behavior are crucial to developing the best possible optimization opportunities for any company.

About Us

At Explorer we deliver deeper insights and better solutions. We do this by blending traditional research with the latest in cognitive and neuro science. All our projects are done in realistic environments where tools such as eye tracking, EEG or facial coding are used to help uncover deeper insights.

It's all about delivering better solutions for our clients. We love what we do and about making a positive difference to our customer's businesses. Please speak to Explorer first before putting your research needs in the hands of just anyone.

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