

Why does a customer select your product? Who uses it, and how? What are their expectations regarding taste and structure? What do they think of the experience, and how do they dispose it?

Understanding consumer behavior is essential to create successful products. Surveys generate valuable information, but they are susceptible to bias, for example because respondents can give socially desirable responses. To better predict your product potential, observation of consumers or members of a taste panel in specific situations is indispensable. This leaflet shows you how The Observer® XT facilitates the study of consumer behavior, and helps to increase the quality and efficiency of observational research.

## THE OBSERVER XT

In consumer behavior studies many researchers use The Observer XT, the professional software for the collection, analysis, and presentation of observational data. You could use it, for example, to study the effect of packaging on food selection. During several days (or maybe weeks) video cameras would film customers in a store. You could even record the environment. In this observation period you can test different types of packaging. It is also possible to include the influence of variables such as:

- age, gender or social class
- light conditions
- shelf position
- other nearby products

## Case study in the Restaurant of the Future

Noldus is one of the founding fathers of the Restaurant of the Future in Wageningen (The Netherlands). It is a unique environment where scientists can observe restaurant frequenters in conditioned situations for a prolonged period of time. Research may include behavior, food choice, influence of lighting, taste, and countless other aspects involving out of home eating and drinking.

In this case study thirty consumers were observed while choosing their lunch from a buffet in the restaurant. The buffet contained three chicken burgers that were labeled as either 'healthy', 'welfare friendly', or 'new'.



Figure 1. All data comes together in the control room of The Restaurant of the Future

## Coding behaviors and subjects

As shown in figure 2, the researchers used a coding scheme consisting of two behavior groups 'food items' and 'behavior'. With The Observer XT, you can easily specify different subjects (like a customer or cashier) and behaviors (e.g. read, hold) in a coding scheme. The researchers built this coding scheme beforehand and added different elements during the observation. You can add or change elements whenever necessary and log comments to qualitatively classify your results later. Code behaviors with keystrokes or mouse clicks. A timestamp is added automatically. The Observer XT allows you to refine your coding as often as you like, without losing



Figure 2. The case study. To the right is the coding scheme.

previously coded measurements. Moreover, your research configuration can be re-used to collect subsequent series of data.

#### **Work with video in The Observer XT**

You can efficiently view and score one, two, or multiple video recordings with The Observer XT. The program enables you to synchronize all data afterwards, so you don't have to connect all video cameras to the system during recording. In the Restaurant of the Future not all cameras were connected to the system, which is most convenient when working with this many cameras.

#### **OTHER FEATURES OF THE OBSERVER XT**

##### **Import external data**

In The Observer XT you can import any additional external data, such as eye tracking data, physiological signals, or FaceReader™ data, synchronous to the observed behaviors. Heart rate and facial expressions can be used as additional indicators of stress or appreciation.

##### **Select and analyze data**

Specify the relevant analysis parts by filtering or nesting the appropriate independent variables, subjects, and behaviors. For example choosing behavior can be related to gender or age class. The Observer XT enables you to quantify events you observe. It offers descriptive statistics of the coded behavior, and lag sequential analysis to analyze the order of events. Among the possible output are tables of frequencies, durations, and other statistics.

##### **Export data**

For additional calculations and analysis, The Observer XT contains the option to export raw results into a spreadsheet or statistics program, such as SPSS.

##### **Present your results**

A wide range of presentation options is available, to attractively communicate your results to others. You can select important video fragments and create your own highlights video clip to illustrate your findings.

#### **EMOTION ANALYSIS WITH FACEREADER**

Accurate and objective assessment of a consumer's emotional response offers additional information about

their experience. Since people react instinctively, this will offer new insights compared with verbal feedback. FaceReader™ allows you to classify faces and analyze emotional expressions, from happy to sad, and from disgusted to surprised. You can import FaceReader data into The Observer XT, to synchronize it with event logs, physiological data, or screen captures.



**Figure 3.** With FaceReader you can automatically assess emotional responses.

#### **OBSERVATIONAL LABS**

We offer a wide range of solutions to observe, visualize, and analyze consumer behavior, including portable and fixed labs. Portable labs offer practical, mobile solutions, ideal for on-site testing in a natural environment. Together with you, we can design and build an observation lab with the latest video and audio recording equipment and integrate everything (eye trackers, computers, cameras, etc) with The Observer XT software for a fully synchronized set-up. You don't have to worry about the right set up. We help you choose the right equipment.

#### **APPLICATION EXAMPLES**

Our solutions can be used for various types of consumer behavior research, for example:

- How do visitors of a restaurant use their lunch?
- Which paths do customers follow in a shopping mall, a store, or a museum?
- How do people open a package?
- Which functions and features of a product are actually used?
- Are customers using all functions of a TV-set, a mobile phone or a kitchen machine?

Feel free to contact us or one of our local representatives for more references, client lists or more detailed information about our solutions.

#### **RESEARCH ARTICLES ILLUSTRATING THE USE OF THE OBSERVER FOR THE STUDY OF CONSUMER BEHAVIOR**

- Poelman, A.A.M.; Glorie, C.; Mojet, J. (2005). Observation of food choice in catering before and after introduction of organic cheese and meat slices. *Proceedings of Measuring Behavior 2005, 5th International Conference on Methods and Techniques in Behavioral Research (Wageningen, The Netherlands, 30 August - 2 September 2005)*, pp. 561-562. Edited by L.P.J.J. Noldus, F. Grieco, L.W.S. Loijens and P.H. Zimmerman.
- Herpen van, E.; van Trijp, H.; Kuipers, T. (2005). The influence of assortment organization on product comparisons and choice. *Proceedings of Measuring Behavior 2005, 5th International Conference on Methods and Techniques in Behavioral Research (Wageningen, The Netherlands, 30 August - 2 September 2005)*, pp. 595-596. Edited by L.P.J.J. Noldus, F. Grieco, L.W.S. Loijens and P.H. Zimmerman
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