

Why does a customer select your product? Who uses it, and how? What do they think of the experience, and how do they dispose it?

Understanding consumer behavior is essential to create successful products. Surveys can generate valuable information, but they are susceptible to bias, for example because respondents give socially desirable responses. To better predict your product potential, observation of consumers 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.



Figure 1. Observations in a restaurant setting.

THE OBSERVER XT

We offer a professional software solution to collect, analyze and present 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

You can efficiently view and score the video recordings with The Observer XT. Score behavior afterwards in detail, or do it live, recording it to video simultaneously. Both is possible too, of course. You can use The Observer XT to easily synchronize everything afterwards, so you don't need to connect all video cameras to the system during recording.



Figure 2. Screenshot of The Observer XT.

With The Observer XT, you can specify different subjects (like a customer, shopkeeper or cashier) and behaviors (e.g. read, walk, hold) in a coding scheme. No need to set up a coding scheme first: just add or change elements while observing, and perhaps log comments to qualitatively classify your results later. Code your observations with keystrokes, mouse clicks, or both. A timestamp is added automatically.

To facilitate coding video material, The Observer XT offers detailed time settings. You can play two or more video streams simultaneously backward or forward. You can even use multiple speeds. This allows you for example to view eye movements in slow-motion, if you would use gaze direction as an indicator of attention direction and intensity.

After observing your test persons, you can import any additional external data, such as physiological signals, into The Observer XT. If, for example, you would use heart rate as a stress indicator, you could measure behavior more objectively. Just import the data from your acquisition system (e.g. a Polar heart rate monitor), synchronize them with your observations, and start coding.

You can refine your coding as often as you like, without losing previously coded measurements. You can also re-use your research configuration to collect subsequent series of data. Next, you can start analyzing your results. It is possible to specify the relevant analysis parts by filtering or nesting the appropriate independent variables, subjects and behaviors. For example, purchasing behavior can be related to gender or age class.

The Observer XT also provides detailed visualizations, to help you explore the data. Customized charts and statistics are just a few mouse clicks away, and ample selection options give access to any video images you need.

For additional calculations and analysis, the system also offers the possibility to export data to spreadsheet or statistics programs. You can also backup your data to CD or DVD. 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.

More complex behavior patterns can be detected by exporting your data to our Theme™ program for structural analysis. Theme can detect complex event patterns in raw behavioral data, for example the order of product purchases or usage.

EMOTION ANALYSIS

Accurate and objective assessment of a consumer's emotional response can offer 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. Screenshot of FaceReader.

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

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

OBSERVATIONAL LABS

We offer a wide range of solutions to observe, visualize and analyze consumer behavior, including portable and stationary labs. Portable labs offer practical, mobile solutions, ideal for on-site testing in a natural environment. We can also equip a stationary lab with the latest video and audio recording equipment and integrate everything with The Observer software for a fully synchronized set-up.



Figure 4. From the control room in the Restaurant of the Future, researchers can observe customer behavior.

Noldus is involved in many projects. We are one of the founding fathers of the Restaurant of the Future in Wageningen (The Netherlands). This unique project makes it possible to develop new and improved solutions for consumer behavior research. The Restaurant is equipped by Noldus with the latest computer and video technology, including all equipment for the control rooms. We also take care of the complete on-site installation, including training and documentation for researchers using the Restaurant.

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?