



Descriptive Analysis with Home Panels

What is Descriptive Analysis

Descriptive Analysis (DA) is a sensory analysis method that uses trained panelists to objectively measure product characteristics. DA is an effective sensory tool used in:

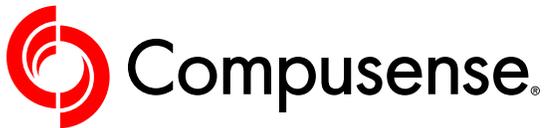
- Research and Development
- Product Research
- Marketing
- Shelf life Studies
- Product Development
- Manufacturing (QA/QC)

Typically, DA studies are conducted in a sensory testing facility under controlled conditions, following proper sensory protocols.



During the Covid-19 pandemic, many jobs have shifted to remote work. With the restrictions in your work place, it might make sense to create a home DA panel. Due to government health and safety directives, having 8 to 12 DA panelists gathering at your facility may not be possible. You must also consider that your panelists may feel anxious and unsafe in a group setting, which will affect their performance.

So how can you remotely perform the DA testing that your company relies on for continued growth and success? Unlike Home use Tests (HUT), where consumers evaluate products in their homes under normal usage conditions, DA testing requires trained panelists and controlled conditions. The purpose of this document is to provide tips and considerations to help you run a successful DA panel with panelists at home. Please note that the information provided follows the assumption that you have an established DA panel.



How Do you Conduct a Home DA Panel While Maintaining Proper Sensory Protocols

Products

Managing products is the main challenge with DA testing at home. Food and beverage products requiring minimal preparation lend themselves well to Home DA Panels, as do personal care products.

Examples of appropriate food and beverages products are:

- Baked Goods (cookies, crackers, bread)
- Non-Carbonated Beverages (milk, juice, smoothies)
- Condiments
- Deli Meats
- Candy
- Cheese
- Yogurt
- Potato Chips

Examples of appropriate personal care products are:

- Lotions
- Razors
- Soap
- Shampoo
- Deodorant
- Toothpaste



Things to Consider: Panelists should receive detailed storage and preparation instructions, such as "Keep refrigerated until ready to evaluate" or "Store at room temperature". Ideally, samples should be pre-portioned, labelled with 3-digit blinding codes, ready for the panelist to evaluate, but there could be circumstances where panelists are required to do preparations; for example, opening a can of a carbonated beverage immediately before evaluating. In this case, the cans would need to be unbranded and labelled with a blinding code, and panelists would be instructed on the correct amount of sample to evaluate. Product quantity requirements would increase for this testing scenario, as each panelist will be given a whole can of product per sample.



Preparation & Logistics

Planning and preparation are the key to making your Home DA Panel run smoothly. Review all test products so you know what reference samples, training products and supplies are required. The ability to anticipate training needs becomes especially important for your Home DA Panel.

Coordinating and communicating with panelists is also very important in order to avoid misunderstandings about supply pickup arrangements, evaluation times and group discussion times. Spend time planning your written and verbal instructions, and allow enough time in your schedule for communication with panelists. Ensure panelists have everything they need to complete the panel, for example:

- Training and testing product
- Reference samples
- Water cups
- Spit cups
- Cutlery
- Palate cleansers

What might you need to provide to your panelists to ensure testing conditions are as consistent as possible?

- Data collection device (tablet or laptop)
- Lighting
- Specialized equipment such as a microwave or a coffee maker

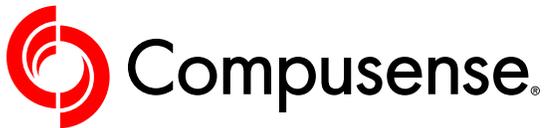
Things to Consider: Plan on a Home DA Panel taking longer than usual. It may be wise to schedule in a few more days than you normally would for the same panel at a sensory facility to account for circumstances that may increase the panel time. No matter how much planning you've done, things will happen that are out of your control with a remote panel; for example, power/internet outages, panelists requiring additional product due to spillage or serving error.

Training

Remote training necessitates modifying the practices you have been conducting in your sensory facility. Here are some strategies to address the challenges of remote training:

Communication

- Communicating during the training phase of the panel is crucial. It is essential that all panelists understand test methodologies and attribute definitions before the final product evaluation.
- Make sure all instructions are clear to avoid ambiguity and misinterpretation.
- An initial in-person, physically distanced, overview discussion between the panel leader and panelists is beneficial. Schedule this when the products and supplies are picked up or dropped off.
- Use email, phone or an online meeting platform to conduct group and individual communications.
- Include detailed instructions in your Compusense training tests to relay information immediately and effectively.
- Send scheduled daily reminders to panelists through the Compusense software.
- Use the Compusense "Show Results at End" feature to give panelists performance feedback at the end of a training test.

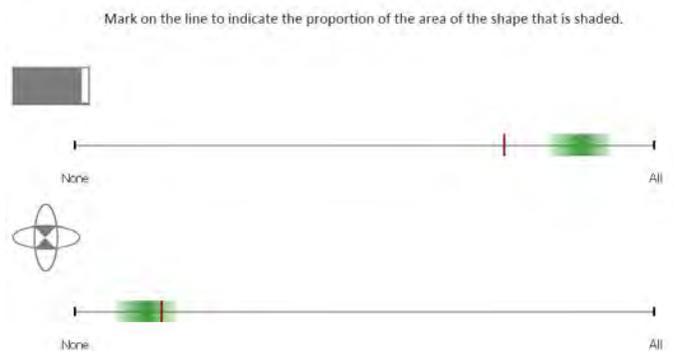


Sample and Supply Distribution

- Provide all anticipated training samples, references and supplies to the panelist at the beginning of the process to avoid having more than one pickup or drop off trip.
- If additional product samples or references are required based on daily training results, schedule another pickup or drop off time during the training.

Attribute Learning and Calibration

- For products and attributes that are new to the panel, conduct a remote attribute generation. Use the Compusense "Get Started" Attribute Generation test template to facilitate a group discussion via your online meeting platform of choice.
- Calibrate the panel quickly and efficiently with FCM[®] training tests. Compusense FCM[®] is a computerized panel training method that provides panelists with immediate, individualized, visual feedback that reinforces panelist calibration and attribute learning.
- Provide references for established products and attributes at the start of training.
- For new products, provide anticipated references (based on the sensory team's knowledge of the product) at the start of training. If additional references are required based on attribute generation, schedule another pickup or drop off time during the training.



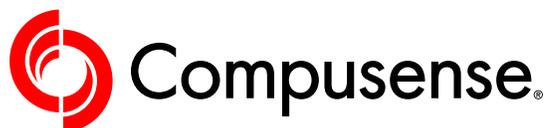
Panelist Performance

Monitor panel and panelist performance remotely using Compusense reports and features.

- Summary Report
- Hits and Misses Report
- Panelist Performance Graphs
- Panelist Summary Report
- DA Workbook
- PCA Workbook

Things to Consider

- In order to keep testing conditions as controlled as possible, give detailed instructions to panelists about their home workspace environment. For example, keep lighting consistent, avoid strong cooking odours, keep noise levels low, avoid distractions such as pets and family members.
- Depending on your panelists, you may need to adjust communication methods based on a panelist's access and comfort level with technology.



Testing

Everyone's hard work has paid off and the panel is ready for the testing phase. Surprisingly, the final product evaluation is probably the easiest part of conducting a Home DA Panel! At this point, the panelists are very familiar with evaluation methodologies and the practicalities involved with preparing samples and collecting data.

Things to consider

- Have panelists take an inventory of test samples the day before evaluations begin to ensure nothing was misplaced or inadvertently used during training.
- If panelists will be portioning their own samples from a commercial package, provide a new package for each replicate evaluation so panelists are not aware that it is the same product.

Conclusion

Planning and preparation are vital to the success of a Descriptive Analysis panel at an on-site sensory facility and at home. Many of the same issues need to be addressed in both testing scenarios. The successful execution of a Home DA Panel depends on understanding limitations, anticipating potential problems, and adapting methodologies while still maintaining best sensory practices.

As experience and confidence grow, a committed sensory team and panel will be able to expand on the complexity of products evaluated and evaluation methodologies.

If you have any questions about Home DA Panels, please contact Compusense at info@compusense.com