

Does Context Really Matter?

Understanding how the application context may affect results when applying personal care products



Introduction

In the personal care category, the context in which samples are evaluated is extremely important, whether it is in consumer testing or descriptive analysis. Our hypothesis is that collecting consumer data in the context of the true application behavior and setting (meaning on full face, at home, along with current regimen) will lead to more accurate and actionable results. Additionally, collecting sensory data using expert panelists in their natural environment provides similar precise results as data collected in a laboratory setting. Furthermore, we investigated the difference between application sites (face versus volar* forearm) to determine the most appropriate skin test site for personal care categories.

The Experiment

Sensory Research Plan

(through ISR – Harrison, New York) n=7

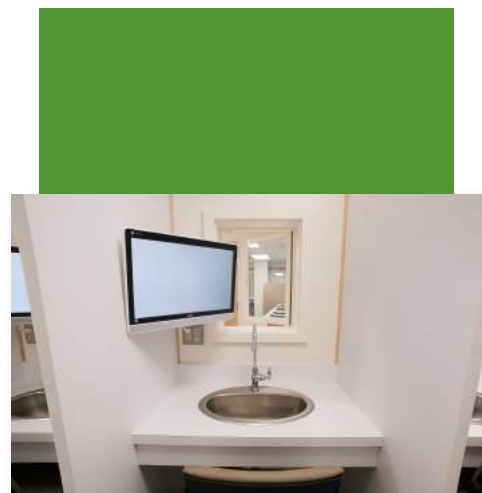
- Conducted replicated descriptive analysis among trained panelists in a laboratory setting, using a total of 17 attributes
 - panelists were asked to arrive at the facility make-up free; upon arrival, each panelist cleansed their face with Cetaphil Daily Gentle Skin Cleanser
 - panelists then applied pre-portioned night cream on both halves of their face and volar* forearm on damp skin and proceeded to evaluate the cream on a series of attributes; before leaving, panelists rinsed their face of product
- Conducted another round of replicated descriptive analysis among these same trained panelists in their home over the next two nights.
 - panelists were again instructed to wash their face with Cetaphil Daily Gentle Skin Cleanser and then apply the pre-portioned night cream, instead of their own personal night cream, on a damp full face (no arm) before evaluation

Consumer Research Plan

(through Blueberry – Chalfont, Pennsylvania) n=48

- Pre-recruited women who are current users of facial creams
- These consumers **first** participated in a blind, monadic, Central Location Test (CLT).
 - respondents were asked to arrive at the facility make-up free; upon arrival, each respondent cleansed their face with Cetaphil Daily Gentle Skin Cleanser
 - each respondent was then supplied with a pre-portioned amount of night cream and was asked to apply it to their face
 - once applied, they answered a series of questions
 - before leaving they cleansed their face again in order to strip their face of the product
- Following the CLT, these same respondents took home the night cream to **secondly** participate in a blind, monadic, Home Usage Test (HUT) over the next two nights.
 - respondents were asked to follow their current night-time regimen (if one followed) and to apply the night cream; once applied, they again answered a series of questions.

All data collected via web-programmed questionnaire



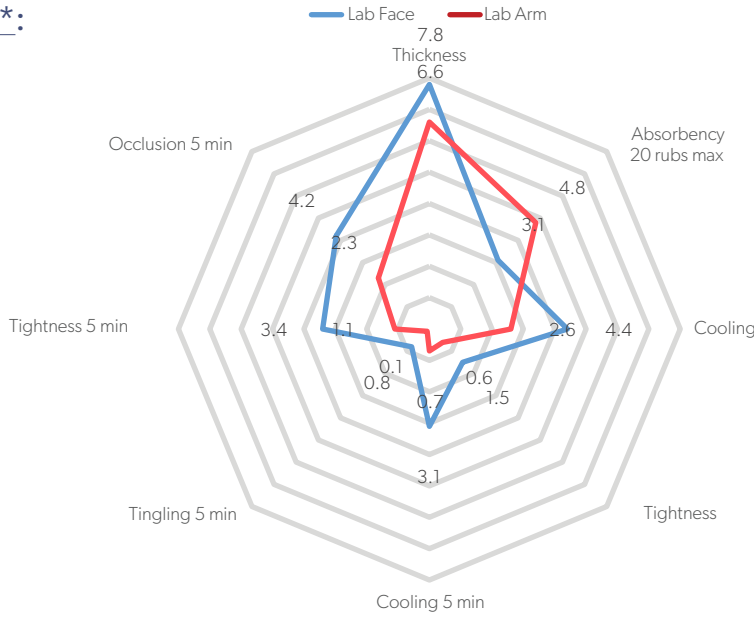
Controlled Environment
Personal Care Booth
HARRISON, NY



At-Home Evaluation

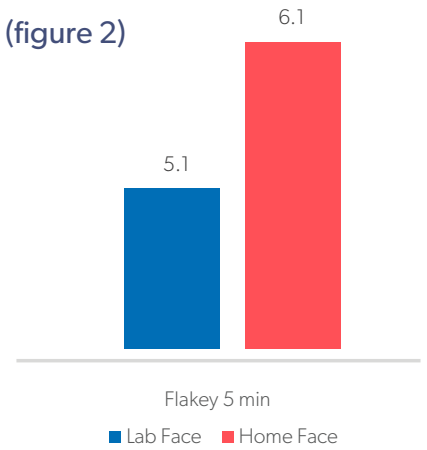
Descriptive**:

Lab Face vs. Lab Arm (figure 1)



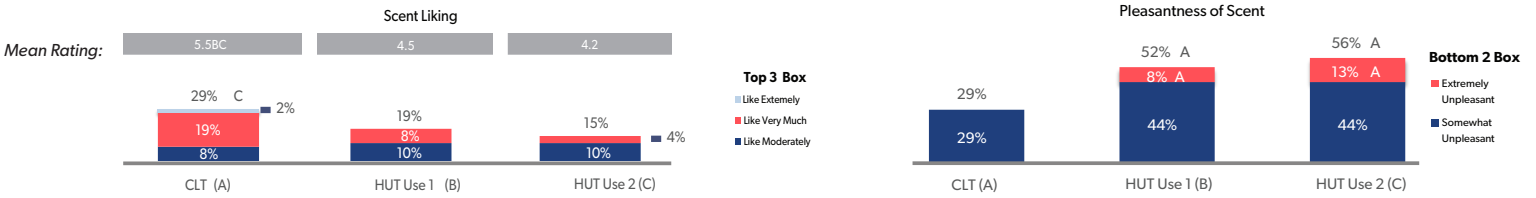
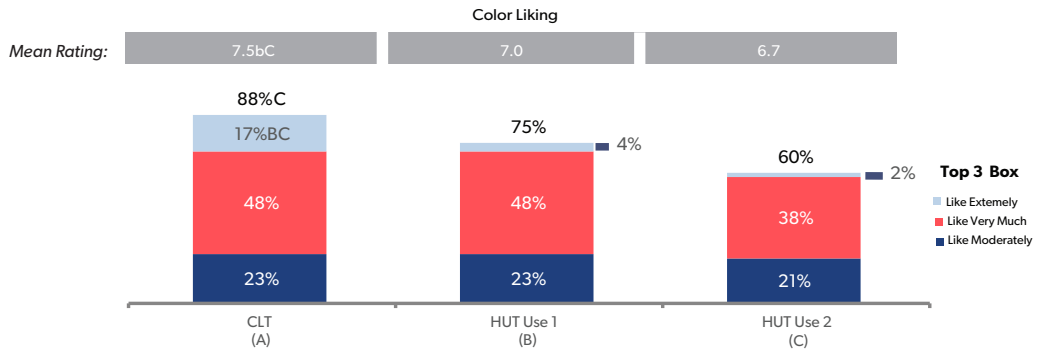
Descriptive**:

Lab Face vs. Home Face (figure 2)

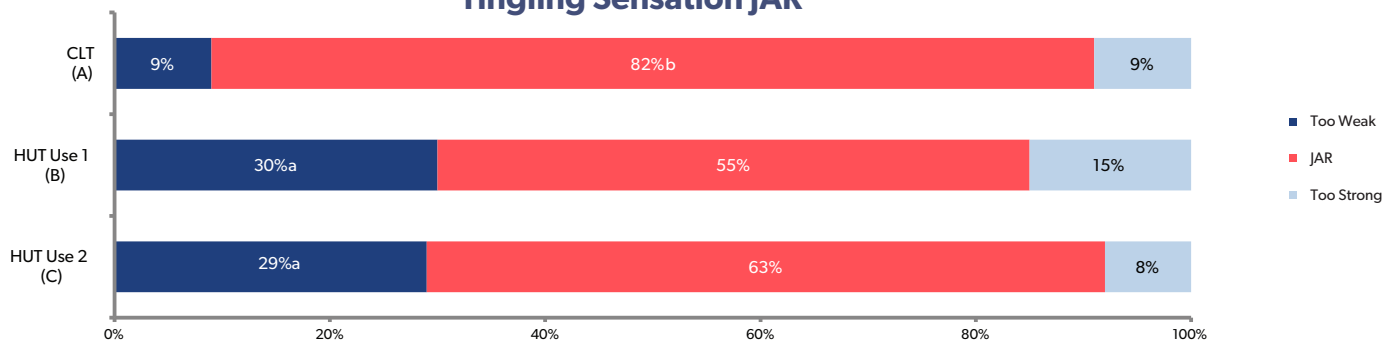


Consumer:

Lab vs. Home (figure 3)



Tingling Sensation JAR



Notes

**only attributes with significant differences shown

For consumers: significant differences at 95% CL are indicated using capital letters (A,B,C) corresponding to the product that the referenced number is higher than; in case of non-significance at 95% CL, tests with a lower/90% CL have been applied. Significant differences at 90% CL are indicated in the same fashion as 95% CL, but using lower case letters (a,b,c) instead.

Product Evaluated



AGE-DEFYING Night Cream, Optimera™ Formula,
supplied by



Findings

Differences exist across **both** types of participants, across **both** types of settings, across **both** types of skin testing sites.

■ Among **trained panelists**, two key differences emerge:

- Face versus Volar* Forearm evaluation in the lab (figure 1) – the same sample felt thicker and absorbed less during application, when applied on half-face; additionally, there were higher sensations for cooling and tightness during and immediately after application, as well as cooling, tightness and occlusion (mask-like perception) five minutes post-application when sample was applied on half-face rather than the volar* forearm.
- Lab versus Home evaluation on the face (figure 2)– results were similar in both settings. The main differentiating attribute was higher flaking (balling of product) for the in-home full face evaluation five minutes post-application; this difference could be due to a larger skin surface area or the fact that it felt more natural for the panelists to evaluate their face in their own environment as part of their routine.

■ Among **consumers**, several differences also emerge (figure 3):

- Liking of this facial cream's color and scent decreased at home; in addition, the tingling sensation was noticeably weaker at home. Differences in the color could be a result of evaluation of the product in its natural light; the differences in scent and tingling sensation were most likely a result of consumers simply having more time to notice/be aware of these properties.
- Despite this, overall liking and purchase intent increase directionally, suggesting consumers become more acclimated to the product over time.

Conclusions

- It is equally reliable to conduct in-home descriptive analysis in a semi-controlled setting in the panelist's natural environment. Additionally, facial skin is much more suitable for detecting kinesthetic and somatosensations than the volar* forearm. Researchers should take into consideration skin test site to increase accuracy of results, even when it prolongs timelines.
- For consumers, there are advantages to testing personal care products in a controlled setting: controlled environment, application, and respondent behavior. However, differences emerge when testing in the home that may be more accurate of true product performance.
- In summary, awareness of potential differences need to be acknowledged in the interpretation of results across any method/respondent type, and furthermore, if decisions are made based on these data.

Notes

*In sensory testing, products are often applied to the volar (inner) forearm as there is more space; in addition, this area is normally make-up/product free; therefore, decisions are often based off of volar forearm data

Acknowledgements

Questionnaire programming, data collection and data processing provided by Reckner