Does data capture device affect sensory descriptive analysis results?

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Introduction

The sensory descriptive analysis of 4 snack bar products was conducted on 3 different data collection devices. Results were compared to determine whether the device type had a significant influence on the results.

Materials and Methods

Devices: iPod Touch, iPad, Laptop with an external monitor.
Products: 8 snack bar products (4 for training, 4 for evaluation).
Method: sensory descriptive analysis (20 attributes)
Design for product evaluation of 4 evaluation snack bars:

• 3 days* 3 sessions/day* 4 products/session* 12 assessors.

Example Assessor Device Rotation			
	Session 1	Session 2	Session 3
Day 1	iPod	iPad	Monitor
Day 2	iPad	Monitor	iPod
Day 3	Monitor	iPod	iPad

• Replication and blocking were used to balance product and device order effects.

Device Panel (n=12)

Devices Used

**Images are for comparison purposes and are approximately relative in size.

iPod Touch
10.16cm diagonal
16:9 aspect ratio

iPad 2
24.64cm diagonal
4:3 aspect ratio

LCD Monitor
50.80cm diagonal
16:9 aspect ratio

Results

GPA showing each of the Product x Device objects for both the panel, overlaid with 95% confidence ellipses

Mean device scores for each of the 20 attributes.

The difference from the standardized mean.

Conclusion

• Products characterized similarly regardless of device.

• Differences in scale level were observed.

• Differences might be due to the stylus vs. mouse.

• Further research is required to evaluate the effect of using a stylus.

Contact Information

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