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Abstract

Novel Method to Conduct Remote Sensory Sessions and Biometrics during Isolation †

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Abstract: Background: The recent pandemic due to the appearance of COVID-19 in 2020 has led to lockdowns worldwide, which have affected companies and universities conducting sensory evaluations. Therefore, a novel method to conduct sensory sessions for descriptive and consumer tests using biometrics in isolation has been developed. **Materials and Methods:** The method consists of using communication software such as Zoom and online software such as Google forms or RedJade to conduct the sensory sessions remotely. Different studies have been conducted using this technology to assess (i) consumers' acceptability towards coffee labels (N = 69), (ii) videos of beer while pouring (N = 100), and (iii) images from the Geneva affective picture database (GAPED) using self-reported and biometric (subconscious) responses from consumers (N = 100), and (iv) wine samples using a trained panel (N = 11) with a quantitative descriptive analysis (QDA®) method and a 15 cm non-structured scale. The researcher shared the questionnaire link with the participants and connected through Zoom during the session, using the camera to record videos of consumers' responses while evaluating the samples for the biometrics. **Results:** Study 1 showed several associations between the coffee label concepts and self-reported and biometric responses. Some of these were that the Premium label was associated with perceived coffee strength, brand as the preferred area of interest (AOI), 😎, and valence and relaxed subconscious responses. On the other hand, the Everyday label was associated with pleasantness, colors as preferred AOI, 😀, 😊, 😆, and subconscious responses such as Joy and Smile (Figure in the Poster as Supplementary Material) [1]. Study 2 showed that consumers had more positive emotions and higher perceived quality towards beers, with higher liking of foam-related parameters. In Study 3, using GAPED images, based on the self-reported and subconscious responses, participants were able to correctly distinguish positive, neutral, and negative images [2]. On the other hand, in Study 4, the trained panel was able to accurately assess the intensity of aromas in different wine samples (Shiraz and Chardonnay) [3]. **Conclusions:** Findings were consistent with those from similar studies from previous publications conducted in a sensory laboratory [4–9], which confirms the reliability of the proposed virtual method. Further developments involve the assessment of multiple participants to record their biometrics simultaneously and optimize the sensory session time.

Keywords: virtual sensory sessions; subconscious responses; consumer tests; descriptive tests; video analysis

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