Application of Different Sensory Methods in VR Sensory Analysis

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Summary

This research aimed to discover the different potentials of Virtual Reality (VR) technology usage in sensory science. The main goal is to look for the viability of the use of VR coupled with JAR and CATA tests not only as a tool but also as a platform for food product imagination and evaluation. Through comparative analysis it is demonstrated that VR is able to simulate the sensory analysis process as if the person was performing this activity in a physical setting. On the contrary, the outcome is also similar to the comparison of CATA analysis in virtue and VR-based CATA analysis. Hence, VR is valid for capturing refined sensory perception. The respondents' opinions pointed to immense strengths and areas of deficiencies in the application of the VR technology to sensory analysis. The participants enjoyed the experience all the same although it was a bit hard on their eyes as it was not clearly defined. Also, the simulator sickness was hard enough for some and the calibration process would need some tweaking. Such observations could lead to the development of systems to ensure maximization of VR technology use in sensory science applications. To sum up, the VR environment is very promising in the practice of sensory science; it not only provides the tool to assess products but also a new approach to our common knowledge. By tackling the problems described and adopting continuous design improvements, we believe VR is going to make a radical difference in sensory analysis with much less time, effort and money needed.