



Standard Guide for Two-Sample Acceptance and Preference Testing with Consumers¹

This standard is issued under the fixed designation E2943; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

This guide is intended to be used by sensory consumer and marketing research professionals (referred to as the “researcher” or “research professional”) as an aid to understanding issues associated with and to conducting two-sample acceptance and preference tests with consumers. This guide includes a general summary of considerations and practices for conducting hedonic tests followed by specific considerations and practices for both acceptance and preference testing, including pros and cons of each method. Final sections consider the incorporation of both acceptance and preference testing into the research plan and discuss potential lack of linkage in output/results between them. A flowchart outlining summary of these methods and references for further reading are also included.

1. Scope

1.1 This guide covers acceptance and preference measures when each is used in an unbranded, two-sample, product test. Each measure, acceptance, and preference, may be used alone or together in a single test or separated by time. This guide covers how to establish a product’s hedonic or choice status based on sensory attributes alone, rather than brand, positioning, imagery, packaging, pricing, emotional-cultural responses, or other nonsensory aspects of the product. The most commonly used measures of acceptance and preference will be covered, that is, product liking overall as measured by the nine-point hedonic scale and preference measured by choice, either two-alternative forced choice or two-alternative with a “no preference” option.

1.2 Three of the biggest challenges in measuring a product’s hedonic (overall liking or acceptability) or choice status (preference selection) are determining how many respondents and who to include in the respondent sample, setting up the questioning sequence, and interpreting the data to make product decisions.

1.3 This guide covers:

1.3.1 Definition of each type of measure,

1.3.2 Discussion of the advantages and disadvantages of each,

1.3.3 When to use each,

1.3.4 Practical considerations in test execution,

1.3.5 Risks associated with each,

1.3.6 Relationship between the two when administered in the same test, and

1.3.7 Recommended interpretations of results for product decisions.

1.4 The intended audience for this guide is the sensory consumer professional or marketing research professional (“the researcher”) who is designing, executing, and interpreting data from product tests with acceptance or choice measures, or both.

1.5 Only two-sample product tests will be covered in this guide. However, the issues and recommended practices raised in this guide often apply to multi-sample tests as well. Detailed coverage of execution tactics, optional types of scales, various approaches to data analysis, and extensive discussions of the reliability and validity of these measures are all outside of the scope of this guide.

1.6 *Units*—The values stated in SI units are to be regarded as the standard. No other units of measurement are included in this standard.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

¹ This guide is under the jurisdiction of ASTM Committee E18 on Sensory Evaluation and is the direct responsibility of Subcommittee E18.04 on Fundamentals of Sensory.

Current edition approved May 1, 2015. Published May 2015. Originally approved in 2014. Last previous edition approved in 2014 as E2943 – 14. DOI: 10.1520/E2943-15.