



Designation: ~~E2229-02~~ Designation: E 2229 – 09

Standard Practices for Interpretation of Psychophysiological Detection of Deception (Polygraph) Data¹

This standard is issued under the fixed designation E 2229; 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.

1. Scope

~~1.1 This practice establishes~~ 1.1 These practices establish procedures for the systematic interpretation and analysis of Psychophysiological Detection of Deception (PDD) data.

1.2 Any test data analysis procedure used shall be correctly matched to the PDD examination format. Examiners shall use evaluation methods for which they have been formally trained.

1.2.1 Acceptable test data analysis procedures are those published in refereed or technical journals, and for which published replications of the procedures have confirmed their efficacy.

2. Referenced Documents

~~2.1 ASTM Standards:~~

~~E2031 Practice for Quality Control of Psychophysiological Detection of Deception Polygraph Examinations~~

~~E2035 Terminology Relating to Forensic Psychophysiology²~~

~~E2062 Guide for PDD Examination Standards of Practice²~~

3. Terminology

3.1

2.1 Definitions of Terms Specific to This Standard:

3.1.1

2.1.1 *3-position scale*—whole number values from -1 to 1 assigned systematically to responses to relevant and comparison questions. These values are summed, and the PDD outcome is governed by specified decision rules for which these sums are used.

3.1.2

2.1.2 *7-position scale*—whole number values from -3 to 3 assigned systematically to responses to relevant and comparison questions. These values are summed, and the PDD outcome is governed by specified decision rules for which these sums are used.

3.1.3

2.1.3 *rank*—a number assigned to individual responses within a PDD recording hierarchically, according to relative response intensity.

3.1.4

2.1.4 *rank order scoring*—assignment of ranks according to relative magnitude of the responses. The PDD outcome is governed by specified decision rules using these ranks.

3.1.5

2.1.5 *respiration line length*—sum of the length of the respiration waveform over a fixed time period.

3.1.6

2.1.6 *response amplitude*—magnitude of a response from stimulus onset to maximum expression of the response within the response window.

3.1.7

2.1.7 *response duration*—period between a phasic response onset and return to baseline.

3.1.8

2.1.8 *response latency*—time between stimulus and response onsets.

¹ These practices are under the jurisdiction of ASTM Committee E52 on Psychophysiology and is the direct responsibility of Subcommittee E52.05 on Psychophysiological Detection of Deception (PDD).

Current edition approved August 10, 2002. Published October 2002.

² These practices are under the jurisdiction of ASTM Committee E52 on Forensic Psychophysiology and are the direct responsibility of Subcommittee E52.05 on Psychophysiological Detection of Deception (PDD).

Current edition approved March 1, 2009. Published March 2009. Originally approved in 2002. Last previous edition approved in 2002 as E 2229-02.