

QUALITY CONTROL REVIEW & ANALYSIS REPORT

DATE OF REVIEW: 14 April 2015

SESSION IDENTIFIER: EXAMPLEI04142015

DATE OF EXAMINATION: 14 April 2015

EXAMINATION PROTOCOL/FORMAT: Federal You-Phase (Bi-ZCT)

EXAMINER NAME: Theodore Tester

TOTAL NUMBER OF TEST ITERATIONS CONDUCTED: 3 (plus Acquaintance test)

PURPOSE OF THE EXAMINATION: To determine whether the examinee was involved in any way with the theft of any personal from the home of a relative.

SUMMARY OF REVIEW FINDINGS: On the above date, the undersigned conducted a review of the polygraph examination identified above. The requested scope of this review was to confirm the following:

- 1. Was the testing format utilized conducted correctly in accordance with the standards and practices of the American Polygraph Association, ASTM International (formerly known as the American Society for Testing and Materials (ASTM) and accepted industry practices based upon relevant published, peer reviewed literature for the testing format?
- 2. Were the relevant questions utilized properly selected and properly constructed in accordance with the aforementioned standards and were they appropriate to both the format utilized and the stated purpose of the examination?
- 3. Were comparison questions (and technical questions when required) properly constructed and appropriately used for the issue under inquiry and type of testing format used?
- 4. Were sufficient artifact free data present in the signals of interest to conduct an analysis of the data and arrive at an opinion of probable truth or deception using validated scoring procedures and validated numerical cut scores?

RESULTS OF THE REVIEW:

The examination was conducted using the Federal "you-phase" Zone Comparison Test (Bi-ZCT), single issue specific incident comparison question testing protocol in common use throughout the polygraph profession. The format is taught as one of the primary testing formats by the federal government and one listed in the Meta-Analytic Survey of Criterion Accuracy of Validated Polygraph Techniques Report Published by the American Polygraph Association in its Journal, *Polygraph*, Volume 40(4).²

The construction and wording utilized for the relevant, comparison and technical questions adheres to current best practices and conforms to both the format and industry accepted methodology for question construction.

There were sufficient artifact free data present in the charts collected to obtain criteria upon which to conduct a numeric evaluation and sufficient to form a conclusion of deception indicated or non-deception based upon the use of three different numeric scoring methods employed as described below.

TEST DATA ANALYSIS BY METHODS DEPLOYED:

- A. Three position Scoring Rules: (+ 0 -) Grand total and spot total scoring rules as taught by the National Center for Credibility Assessment (previously the Department of Defense Polygraph Institute) and most other accredited APA polygraph schools with cut scores of -3 or lower in any single relevant question spot for a decision of deception indicated or a +1 or greater in each question spot with a grand total score of +4 for two relevant questions or a +6 or greater total score for three relevant questions for a decision of no deception indicated.^{1,2}
- B. Empirical Scoring System (ESS): An evidence-based, normed, and standardized protocol for test data analysis. Using the ESS, the grand total score must equal or exceed the required cut-score for truthful classifications. For a classification of deception indicated, the grand total score must equal or exceed the cut score for deceptive classifications, the level of statistical significance, is calculated as a probability of error (p) which must be equal to or less than the required alpha boundary of (α = .05 or a = .10). ^{3, 4}
- C. Objective Scoring System (OSS) Version 3: A computerized scoring algorithm based on sound polygraph testing principles derived from existing research, and has demonstrable validity with multiple validation samples, including: the original training sample of confirmed investigative (single issue) polygraphs, a validation sample of similar examinations, and a cross validation sample confirmed field investigations conducted with multiple variants of the Zone and MGQT formats. The OSS-3 method does not provide integer point totals analogous to hand scores, but employs empirically based decision rules using probability values (p-values) that will be immediately recognizable to all persons familiar with common inferential statistics. ⁵

TEST RESULTS OBTAINED USING THE THREE SCORING METHODS:

A. Three Position Scoring Rules: numeric grand total score of +9 (+6, +3) NO DECEPTION INDICATED (NDI)^{1,2}

- B. Empirical Scoring System (ESS): Using the ESS, an evidence-based, normed, and standardized protocol for test data analysis, the grand total score of 12 equals or exceeds the required cut score of 4 for truthful classifications. The level of statistical significance is calculated at p = .001, which exceeds the required alpha boundary ($\alpha = .05$). Normative data indicate that only a small portion (0.1%) of deceptive persons are expected to produce a similar truthful test score under normal circumstances. These results support the conclusion that there were **NO DECEPTION INDICATED** by the physiological responses to the test stimulus questions during this examination.^{3, 4}
- C. Objective Scoring System (OSS) Version 3: (OSS-3): NO SIGNIFICANT REACTIONS 0.002. Probability this result was produced by a deceptive person less than 1% (.2%). ⁵

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References

- 1 Department of Defense Polygraph Institute (2006) Test Data Analysis: DoDPI numerical evaluation scoring system.
- 2 American Polygraph Association (2011). Meta-analytic survey of criterion accuracy of validated polygraph techniques. Polygraph, 40(4), 196-305. [Electronic version] Retrieved August 20, 2012, from <u>http://www.polygraph.org/section/research-standards-apa-publications</u>
- 3 Nelson, R., Handler, M., Shaw, P., Gougler, M., Blalock, B., Russell, C., Cushman, B. & Oelrich, M. (2011). Using the Empirical Scoring System. Polygraph, 40, 67-78.
- 4 Nelson, R. & Handler, M. (2012). Using Normative Reference Data with Diagnostic Exams and the Empirical Scoring System. APA Magazine, 45(3), 61-69.
- 5 Krapohl, D.J., & McManus, B. (1999). An objective method for manually scoring polygraph data. Polygraph, 28(3), 209-222. & Krapohl, D.J. (2002). Short report: Update for the objective scoring system. Polygraph, 31(4), 298-302.