

## **Model Policy for Paired Testing**

On May 14<sup>th</sup> the APA Board of Directors approved of the Model Policy for Paired Testing. As with all model policies, it is a non-binding reference for best practices in this area. This document was crafted over the course of several months by APA members Barry Cushman and James McCloughan, with input from others. The approved model policy is below.

### **1 Paired Testing Introduction**

1.1 Polygraph testing can offer a unique and significant contribution to the pursuit of justice. One notable application is the paired-testing methodology. The paired-testing method is useful in reducing the incidence of perjury; affording advantages to the party who offers truthfulness; and moderating the time and expense of legal proceedings that rely heavily on the testimonial evidence of the parties involved. For the paired-testing method to be effective, certain conditions must be met, including the type of testimony, number of testifiers, use of validated testing methods, and the competency of the polygraph examiners. The purpose of this model policy is to inform the judicial system, examiners, attorneys, and the public of the paired-testing protocol and how and when it is best used.

### **2 Rationale**

2.1 Paired testing (also known as the “Marin Protocol”) is a method of utilizing polygraph testing in situations in which two or more subjects assert contradictory accounts of a particular incident in such a way that at least one of the subjects must certainly be lying. The method utilizes two independent examiners with established accuracy and error rates to assess the veracity of at least two subjects in such circumstances in which opposing parties assert diametrically opposed information as factual.

2.2 Because base rates are often unknowable in real world conditions, the confidence that can be placed in polygraph results is often difficult to quantify. Paired testing can overcome this problem when two examinees offering conflicting testimony are both tested. Though the base rate of deception in one standalone examination is often uncertain, it is reasonable to conclude that the combined base rate of deception for precisely two conflicting accounts is one half, or 50%. Therefore, when one examinee is found deceptive and the opposing examinee is found truthful, confidence in the accuracy of the combined conclusions can be very high. The same reasoning applies to those situations in which two or more witnesses asserting consistent testimony are tested and all are found to be either truthful or deceptive.

2.3 It is a well accepted mathematical principle that the probability of two independent events occurring simultaneously is the product of their individual probabilities.

2.4 Paired-testing capitalizes on this principle. Examiners must, at a minimum, have proven average accuracy rates of at least 86%, the median accuracy of examiners in single-issue polygraphy as concluded in the 2003 National Research Council report. In a paired-testing scenario in which one such examiner (i.e., one demonstrating the minimum 86% accuracy rate) finds one party truthful and the second such examiner finds the opposing party deceptive, then the chances of both of them being wrong is the product of their individual error rates, i.e.,  $0.14 \times 0.14 = 0.0196$ , or about 2%.

2.5 As with any forensic examination, polygraph examinations do not replace the process of justice but instead serve as a component of the process. When utilized properly, the paired testing method can help to both strengthen and expedite the process of justice.

2.6 The decision to use the paired-testing method and the weight that should be given to the results rests with the decision maker(s) within the given process in which it is being utilized.

### **3. Standards of Practice.**

3.1 All American Polygraph Association (APA) examiners conducting paired testing polygraph examinations shall comply with the APA Standards of Practice, as well as federal and local legal requirements, including but not limited to the Employee Polygraph Protection Act (EPPA), the Equal Employment Opportunity Commission (EEOC), and the Americans with Disabilities Act (ADA), unless legally ordered to do otherwise; all such deviations shall be noted and explained in the examiner's report..

3.2 This model policy is based on the latest scientific findings. It is understood that various jurisdictions have restrictions or guidelines that might conflict with the recommendations in this model policy. Where restricted by laws contrary to this model policy, examiners shall comply with the law. It is suggested that examiners in such jurisdictions coordinate with the APA to update their local regulations to the latest scientifically validated procedures. In circumstances in which an examiner must deviate from the current best practices as discussed herein, such deviations shall be noted and explained in the examiner's report.

### **4. Examiner**

4.1 The statistical foundation for the validity of the paired-testing protocol is dependant upon the proven ability of each examiner to conduct such exams. Therefore, only a Full or Associate APA member who possesses a valid license or certificate (in jurisdictions where applicable) and who has demonstrated an acceptable level of accuracy and competency shall be eligible to conduct such examinations. Competence is not determined primarily on examiner training, years of experience, or the number of exams conducted, but rather by an examiner's personally demonstrated capabilities.

4.2 Any examiner conducting paired-testing examinations must have successfully completed the following requirements prior to engaging in paired-testing examinations:

4.2.1 Demonstrate competence in conducting scientifically sound polygraph exams, including proper pre-test practices, question formulation, question presentation, and data collection.

4.2.2 Demonstrate competence in chart interpretation. Competence is determined by successfully blind scoring a total of 100 polygraph exams in which ground truth is known, with a minimum of 40 truthful or deceptive cases in the sample. The minimum acceptable level of accuracy is 86% excluding inconclusive scores, which must not exceed 20%.

4.3 A different examiner should test each examinee except in those rare circumstances in which it is impossible or when it is agreed by the parties it is impractical.

4.4 The polygraph examiner's function is to conduct a fair and impartial examination. Each examiner should be unaware of the other's conclusion prior to both of them reaching a final, written opinion.

## **5 Environment**

5.1 All examinations shall be administered in an environment that is free of both aural and visual distractions that would interfere with the examination process.

## **6 Equipment**

6.1 Polygraph examinations are required to be conducted with APA-approved instrumentation and are required to record, at a minimum, the following channels or components:

6.1.1 Respiration patterns recorded by pneumograph components. Thoracic and abdominal patterns are required to be recorded separately, using two pneumograph components.

6.1.2 Electrodermal activity reflecting relative changes in the conductance or resistance of current by the epidermal tissue.

6.1.3 Cardiograph to record relative changes in pulse rate, pulse amplitude, and relative blood volume.

6.1.4 Other physiological data may be used which have been shown to have diagnostic value in polygraph testing, and for which the examiner is qualified to interpret.

6.2 The polygraph shall be equipped with a movement sensor.

## **7 Recording**

7.1 A paired-testing examination shall be audio-visually recorded in its entirety.

## **8 Pre-Test Interview and In-test Practices.**

8.1 The examiner shall ensure the examinee has a reasonable understanding of the polygraph process and the requirement for voluntary cooperation.

8.2 The examiner shall adequately discuss the issue or issues to be tested and to allow the examinee to fully explain his or her answers.

8.3 The examiner shall ensure the examinee understands each question. Attempts by the examinee to rationalize should be neutralized by a pretest discussion in which the examinee demonstrates he or she understands the test questions to have the same meaning as does the examiner. Questions are required to be asked in a form that would prevent a reasonable person, facing a significant issue, from successfully engaging in a rationalization process.

8.4 The examiner shall not display or express bias regarding the truthfulness of the examinee prior to the completion of testing.

## **9 Testing**

9.1 Examiners shall use a validated polygraph testing technique meeting the following minimum requirements:

9.1.1 The technique must have demonstrated an average minimum accuracy of 86% or greater based on a preponderance of the published peer-reviewed research, and;

9.1.2 The technique must be acceptable to the examiner's certifying body or the parties for which the paired tests are being conducted; and

9.1.3 The technique must be one in which the examiner's accuracy was certified by the above-described certification method (4.2).

9.2 Each paired testing examination should be limited to a single-issue of not more than three (3) relevant questions. If more issues need to be explored, such tests should be administered separately. At least one issue shall be agreed upon for examination purposes in order to ensure the continuity of the paired examinations within the process.

9.3 An acquaintance test shall be conducted and discussed as part of the examination process.

## **10 Test Evaluation**

10.1 The examiner shall evaluate chart data utilizing only those specific (numerical) evaluation method(s) with which he was certified or deemed competent. It is recommended that Evidentiary Scoring Rules be utilized; however, examiners utilizing alternative numerical scoring rules who have demonstrated an accuracy rate that meets or exceeds that which is required by their certifying bodies (or parties for whom paired testing is being conducted) may use either method.

10.2 The examiner will render the appropriate opinion of the examination based on the aforementioned process and as set forth in the APA Standards of Practice and Code of Ethics.

10.3 If sufficient criteria do not exist to render an opinion, or if the tracings are too unstable to render a conclusive decision, the examiner shall report the exam as Inconclusive (INC) or No opinion (NO).

## **11 Post-Test Interview**

11.1 The subject shall be given an opportunity to explain any responses to any of the questions. The examiner shall advise the subject of the final results of the examination after evaluation and scoring of all test data.

## **12 Quality Control**

12.1 It is recommended that all paired-testing examinations be subject to an independent quality control review in which all examiners cooperate and provide any and all materials requested for such a review.

12.2 When such a review is requested by either party, examiners shall cooperate with the reviewer(s), fully disclosing all relevant information regarding the examination. Any doubts as to relevancy are required to be resolved through disclosure.

## **13 Retention of Records**

13.1 It is recommended all relevant data be retained for a minimum of five (5) years, but in no event shall records be destroyed prior to the resolution of any legal proceedings in which the polygraph data, findings, opinions, etc., might be at issue.

## **14 Resolution of Issue**

14.1 Whereas paired-testing is designed to reduce the error rate when determining the veracity of two parties with diametrically opposed accounts of the issue at hand, paired-testing's ability to resolve opposing accounts within the statistical framework of this model only extends to those polygraph results which support a common conclusion regarding the incident under investigation.

## **Selected References:**

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