Association of Certified Fraud Examiners

Introduction: The Forensic Science Forum

The aim of the forensic science forum under the auspices of the ACFE SA is to standardise and regulate scientific methodologies employed in the course of forensic investigations, which are carried out in conjunction with criminal or civil legislation. Such investigations include almost all disciplines and practices involved.

It is instrumental to lead the way in terms of setting standards in all the disciplines of forensics applied during any given investigation and although there are well known and international standards in most of the disciplines, some changes may be required in order to address the situation in South Africa and Africa in the context of our own environments and applicable legislation and/or legal systems and frameworks.

Forensic scientists and criminal investigators need to be guided with acceptable standards and procedures for carrying out such examinations. Although the ACFE refers to “certified fraud examiners” it recognises the fact that a strong association exists with forensic examiners and practitioners. All forensic disciplines will accordingly be included in the Forensic Science forum.

The ACFE SA Chapter: Background:

The need to raise the standard of fraud examination in South Africa and for a professional body which was not limited to a specific profession such as accounting or law resulted in the establishment of a local chapter with the mission to provide a community environment in which local forensic examination practitioners can associate. Local membership provides a number of benefits including: a network of experienced professionals; a training framework for practitioners with "how to" guidance, technical updates and ethical standards; regular discussion forums on issues relevant to the local environment; annual workshops on fraud examinations; and a video library with case studies. This chapter is a collection of individuals in South Africa from all industries and professionals, who all have a single goal in mind; the reduction of white-collar crime in South Africa.

I. Preamble of the ACFE SA

The Association of Certified Fraud Examiners is an association of professionals committed to performing at the highest level of ethical conduct. Members of the Association pledge themselves to act with integrity and to perform their work in a professional manner.

Members have a professional responsibility to their clients, to the public interest and each other; a responsibility that requires subordinating self-interest to the interests of those served.

These standards express basic principles of ethical behaviour to guide members in the fulfilling of their duties and obligations. By following these standards, all Certified Fraud Examiners shall be expected, and all Associate members shall strive to demonstrate their commitment to excellence in service and professional conduct.

II. Applicability of Code

The CFE Code of Professional Standards shall apply to all members and all Associate members of the Association of Certified Fraud Examiners. The use of the word “member” or “members” in this Code shall refer to Associate members as well as regular members of the Association of Certified Fraud Examiners.

III. Standards of Professional Conduct

A. Integrity and Objectivity

1. Members shall conduct themselves with integrity, knowing that public trust is founded on integrity. Members shall not sacrifice integrity to serve the client, their employer or the public interest.

2 Prior to accepting the fraud examination, members shall investigate for potential conflicts of interest. Members shall disclose any potential conflicts of interest to prospective clients who retain them or their employer.

3. Members shall maintain objectivity in discharging their professional responsibilities within the scope of the engagement.

4. Members shall not commit discreditable acts, and shall always conduct themselves in the best interests of the reputation of the profession.

5. Members shall not knowingly make a false statement when testifying in a court of law or another dispute resolution forum. Members shall comply with lawful orders of the courts or other dispute resolution bodies. Members shall not commit criminal acts or knowingly induce others to do so.

B. Professional Competence

1. Members shall be competent and shall not accept assignments where this competence is lacking. In some circumstances, it may be possible to meet the requirement for professional competence by use of consultation or referral.

2. Members shall maintain the minimum program of continuing professional education required by the Association of Certified Fraud Examiners. A commitment to professionalism combining education and

experience shall continue throughout the member's professional career. Members shall continually strive to increase the competence and effectiveness of their professional services.

C. Due Professional Care

1. Members shall exercise due professional care in the performance of their services. Due professional care requires diligence, critical analysis and professional scepticism in discharging professional responsibilities.

2. Conclusions shall be supported with evidence that is relevant, competent and sufficient.

3. Members' professional services shall be adequately planned. Planning controls the performance of a fraud examination from inception through completion and involves developing strategies and objectives for performing the services.

4. Work performed by assistants on a fraud examination shall be adequately supervised. The extent of supervision required varies depending on the complexities of the work and the qualifications of the assistants.

D. Understanding with Client or Employer

1. At the beginning of a fraud examination, members shall reach an understanding with those retaining them (client or employer) about the scope and limitations of the fraud examination and the responsibilities of all parties involved.

2. Whenever the scope or limitations of a fraud examination or the responsibilities of the parties change significantly, a new understanding shall be reached with the client or employer.

E. Communication with Client or Employer

1. Members shall communicate to those who retained them (client or employer) significant findings made during the normal course of the fraud examination.

F. Confidentiality

1. Members shall not disclose confidential or privileged information obtained during the course of the fraud examination without the express permission of proper authority or order of a court. This requirement does not preclude professional practice or investigative body reviews as long as the reviewing organization agrees to abide by the confidentiality restrictions.

IV. Standards of Examination

A. Fraud Examinations

1. Fraud examinations shall be conducted in a legal, professional and thorough manner. The fraud examiner's objective shall be to obtain evidence and information that is complete, reliable and relevant.

2. Members shall establish predication and scope priorities at the outset of a fraud examination and continuously re-evaluate them as the examination proceeds. Members shall strive for efficiency in their examination.

3. Members shall be alert to the possibility of conjecture, unsubstantiated opinion and bias of witnesses and others. Members shall consider both exculpatory and inculpatory evidence.

B. Evidence

1. Members shall endeavour to establish effective control and management procedures for documents. Members shall be cognizant of the chain of custody including origin, possession and disposition of relevant evidence and material. Members shall strive to preserve the integrity of relevant evidence and material.

2. Members' work product may vary with the circumstances of each fraud examination. The extent of documentation shall be subject to the needs and objectives of the client or employer.

V. Standards of Reporting

A. General

1. Members' reports may be oral or written, including fact witness and/or expert witness testimony, and may take many different forms. There is no single structure or format that is prescribed for a member's report; however, the report should not be misleading.

B. Report Content

1. Members' reports shall contain only information based on data that are sufficient and relevant to support the facts, conclusions, opinions and/or recommendations related to the fraud examination. The report shall be confined to subject matter, principles and methodologies within the member's area of knowledge, skill, experience, training or education.

2. No opinion shall be expressed regarding the legal guilt or innocence of any person or party.

Forensic Standards Forum

The list of forensic science standards guidelines needs to be dictated to by discipline specific specialists. To assist members of the science forum to implement standards, qualification and ethics, it would be beneficial to standardise the input required in order to build the framework across all disciplines.

Forensic science discipline/title	**Polygraph examiner**
Standards compiled by ACFE SA and	Amelia Griesel

Describe forensic science discipline	A psychophysiological test of deception or recognition, sometimes referred to a lie-detection as a term of convenience.
Forensic Science Application (Nationally and Internationally)	International
Purpose of the forensic science discipline	• Intended to supplement and/or assist an investigation • Screening or investigative (known allegations and incidents) • Event-specific evidentiary or investigative tool to assist in determining the veracity of an examinee regarding knowledge/involvement in a reported issue or allegations • Screening purpose in the absence of a reported incident/allegation

Criminalistics – ***Please describe legislation/common law applicable to your specific forensic science discipline:***

An Investigator must comply with all ACFE SA chapter policies and directions and all
Applicable South African laws, regulations and guidelines, including, but not limited to:

- South African Federation and Association constitution and regulations
- American Polygraph Association's Constitution, By-laws and Standards
- South African Constitution, Act 108 of 1996 and the Bill of Rights (Chapter 2) in particular
- Labour Relations Act, Act 66 of 1995 and amendments
- Basic Conditions of Employment Act, Act 75 of 1997 and amendments
- Protection of Personal Information Act, Act 4 of 2013
- Elements of a Crime - CPA as amended
- Testifying as a Polygraph examiner in Court and CCMA

- Constitution of the Republic of South Africa Act 86/1996
- Human Rights Commission Act 56/1994
- Electronic Communications and Transactions Act 25 of 2002
- Common Law – South Africa

ACFE CODE OF ETHICS

- An ACFE Member shall not engage in any illegal or unethical conduct, or any activity which would constitute a conflict of interest.
- An ACFE Member shall, always, exhibit the highest level of integrity in the performance of all professional assignments and will accept only assignments for which there is reasonable expectation that the assignment will be completed with professional competence.
- An ACFE Member will comply with lawful orders of the courts and will testify to matters truthfully and without bias or prejudice.
- An ACFE Member, in conducting examinations, will obtain evidence or other documentation to establish a reasonable basis for any opinion rendered. No opinion shall be expressed regarding the guilt or innocence of any person or party.
- An ACFE Member shall not reveal any confidential information obtained during a professional engagement without proper authorization.
- An ACFE Member will reveal all material matters discovered during an examination which, if omitted, could cause a distortion of the facts.
- An ACFE Member shall continually strive to increase the competence and effectiveness of professional services performed under his or her direction.

Ethics in Administration – Please indicate existing national and international ethics for the forensic science discipline if not aligned with the ACFE Code of ethics and standards above:

Investigators have high visibility within the eyes of both internal and external clients and thus should always display appropriate personal and corporate values and behave in accordance with the ACFE Code of Ethics and Standards

To ensure each examination will be conducted in the most professional manner possible while maintaining the polygraph discipline as an effective investigative tool, Polygraph examiners should adhere to the Standards of Practice and Code of Ethics as published by the APA during 2015.

Although mostly aligned with the ACFE Code of Ethics and South African recognized Professional Polygraph Body Standards, International (American Polygraph Association), SAPFED (South African

Polygraph Federation) and SATVC (South African Truth Verification Council) standards also requires a Polygraph Examiner conducting Polygraph Examinations:

- To behave honestly and with integrity
- To diligently execute your job description
- To ensure prompt and efficient finalization of reports
- To execute any function or instruction only by way of lawful interactions and/or conduct
- To promote and uphold the good corporate reputation of all stake holders
- To treat both internal and external clients with professionalism and respect
- To never take improper advantage of inexperience, lack of education, youth, lack of sophistication, language barrier or ill health of any client
- To disclose and take reasonable steps to avoid any conflict of interest
- To not provide false or misleading information in response to a request for information from any of the key stakeholders
- To promote public confidence in the organization and all its stake holders through fair and conscientious dealings refraining from any fraud, deceit, misrepresentation, willful non-disclosure, undue influence or other harmful practice
- To never seek personal gain or make any secret profit, acquire any financial interest or benefit in any matter entrusted to you.

Compliance with the code

Forensic science organizations that delivered the above discipline services, hereby agreed that the reputation and future of the discipline, all stakeholders depend on both technical and ethical excellence. It is not only important that forensic science organizations should adhere to the principles expressed in this Code, but also to encourage and support adherence to the code by forensic science organizations that delivered some of these discipline services.

Forensic science organizations are accordingly also obliged to immediately inform the ACFE SA science forum of transgressions by forensic science organizations that delivered these discipline services, once becoming aware of such misconduct.

Non-compliance with the code

Adherence to this code is compulsory and any transgression will be viewed as gross misconduct resulting in his/her ACFE SA chapter membership being terminated.

As a Polygraph examiner, you expressly agree to the following:

- To maintain a sound knowledge of the code of conduct, policies and objectives of the ACFE SA chapter.
- To conduct forensic science services in a manner that will not detract from or damage the reputation of the ACFE SA chapter or its authorized representatives in any way.
- To only collect information relevant to the forensic science services mandated by the client. The collection must not involve the commission of a criminal offence or give rise to a civil action.
- To not enter any premises unlawfully and must not make any threat, promise or inducement when conducting the above forensic science discipline services.
- To avoid any actions which may unreasonably impinge on the privacy or other rights of other people.
- To collect and record only information relevant and responsive to the instructions from his authorizing manager.
- To have in place appropriate measures to protect any information material collected against loss, unauthorized access, use, modification or disclosure.
- To store any information material collected in a secure area and separately from other routine administrative information.
- To not divulge any information obtained during its instructions to any other person or company without the express written permission of the client, he/she represent, unless that disclosure is required by law.
- To not directly or indirectly solicit, accept, offer or give a benefit, gratuity, reward, gift, bribe, commission or procurement fee, about any activity associated with providing those services.
- To not discriminate against any person based on race, sex, colour, sexual orientation, political allegiance, impairment or other unlawful grounds.
- To always conduct interviews with a minor within the presence of that minor's parent or guardian. Forensic science representative(s) must obtain the signature of both the minor and the parent or guardian to the minor's statement and/or consent form
- To be subject to random file audit by the ACFE SA chapter for compliance with this Code and must co-operate fully with the ACFE SA chapter representatives and answer any queries the ACFE SA chapter representatives may have in the conduct of an investigation.
- Always comply with the above National and International ethical standards during the delivery of any kind of the above discipline science services to clients.
- To deliver these discipline science services only as a qualified science expert.
- To only use National and International approved tools and software.
- To only provide the above discipline science services by people who have been trained by an accredited Polygraph School / Academy.

- To provide the above discipline science services only by people who received educational training and obtained certificates in all subjects as prescribed by ACFE
- Be a member in good standing of one of the recognised professional polygraph bodies that apply and promote updated and recent APA standards.

Examiner Education and Training – ***This indicate what is expected to be the minimum qualification, experience, compliance requirements and operational requirements for the specific forensic science discipline. Training material/modules/qualifications to be specified, if exist.***

KNOWLEDGE AND SKILLS	
FORMAL EDUCATION	• Training and Education requirements as set forth in the APA Bylaws
TECHNICAL/ LEGAL CERTIFICATION	• Certified on the working of a Computerized Polygraph Instrument
EXPERIENCE	• 5-10 years' relevant experience OR minimum 4 years' experience limited to a relevant B-degree.

Minimum knowledge and skills – ***This sets out/list the minimum criteria in terms of Formal education, technical and legal certification as well as experience required in the specific forensic science discipline. Note any additional specific special requirements for the specific forensic science discipline.***

COMPETENCIES		
KNOWLEDGE	SKILLS	ATTITUDES
History	Administrative	Accuracy
Technical	Questioning	Assertiveness
Physiology	Communication	Efficiency
Countermeasures	interpretation	Honesty
Scoring	Conflict management	Professionalism
Questioning Techniques	Interviewing	Self-discipline

	Listening	Patience
Linguistics	Negotiation	
Instrumentation	Writing	
Report writing	Typing	

Additional Knowledge:

Law and Human Rights

Laws (and relevant human rights) applicable to credibility assessment.

Ethics, Standards of Practice and By-Laws

The relationships between the APA and SA Polygraph Association, Standards of Practice/By-Laws and other ethical considerations for the practice of credibility assessment.

Introduction to the History and Evolution of Credibility Assessment

be able to identify those persons who made notable contributions to the early and contemporary history of credibility assessment, and demonstrate their knowledge of the evolution of credibility assessment instrumentation, credibility assessment techniques, and test data analysis; the development of relevant professional associations; and alternate methods of credibility assessment.

Scientific Testing

demonstrate a conceptual knowledge of sensitivity, specificity, false positive errors, false negative errors and statistical significance in the application of the concepts to diagnostic and screening tests; the ability to review research articles and explain their methodological strengths and weaknesses.

Mechanics of Instrument Operation

Be able to perform a proper functionality check. Be able to demonstrate the proper component placement, including primary and alternate locations in addition to the positioning of the examinee; proper software operations; acceptable data collection practices, and the use of standardized annotation on polygraph examinations.

Credibility Assessment Techniques

Be able to demonstrate a working knowledge of evidentiary, investigative, and screening examinations. Must understand the essential components of these testing protocols, including the number of presentations, number of tests, and question sequence rules.

Pre-Test Interview

Be able to explain the rationale behind pretest procedures and demonstrate the ability to conduct a free narrative, structured or semi-structured interview.

Post-Test Interview

Be able to explain the rationale behind post-test procedures, identify basic interview approaches and demonstrate the process of post-test interviews for the various test outcomes.

Psychology

Be able to explain the basic elements of human psychology and their applicability to the science of credibility assessment testing.

Physiology

Be able to demonstrate an understanding of the cardiovascular, respiratory, central nervous, peripheral nervous, integumentary and skeletal-muscular systems, as well as pharmacology, as they relate to the credibility assessment data.

Test Question Construction

Be able to demonstrate, in writing, an effective working knowledge of credibility assessment test questions for validated credibility assessment techniques.

Test Data Analysis

Be able to demonstrate a working knowledge of the physiological response patterns used in interpretation of polygraph data, in addition to an ability to identify data suitable and not suitable for analysis. Be able to analyze polygraph data using a validated scoring system, including the appropriate use of decision rules.

Countermeasures

Be able to describe common types of countermeasure attempts and atypical physiology.

Information and Results Reporting

Be able to demonstrate an understanding of necessary information content and presentation of test results.

General Practice – It describe the general acceptable practice in the specific forensic science discipline – nationally and internationally. Describe practices, procedures, policies, systems and outputs used and required for the specific forensic science discipline.

INTERNATIONAL STANDARDS OF PRACTICE

Statement of Purpose: To promote the highest degree of decision accuracy in credibility assessment, the APA establishes for its membership the following Standards of Practice. All examinations are required to be conducted in compliance with governing local and state regulations and laws.

1.1 Definitions

1.1.1 **Polygraph examination**: a psychophysiological test of deception or recognition sometimes referred to as lie-detection as a term of convenience. The polygraph examination is a standardized, evidence-based test of the margin of uncertainty or level of confidence surrounding a categorical conclusion of deception or the possession of knowledge or information regarding a test target issue. Test data are a combination of physiological proxies that have been shown to vary significantly with different types of test stimuli as a function of deception or truth-telling in response to the relevant investigation target stimuli. The psychological basis of responses to polygraph stimuli is thought to involve attention, cognition, emotion, and behavioral conditions. The examination consists of an interview phase, to clarify the issue under investigation and related test stimuli, a data acquisition phase, during which physiological responses to test stimuli are permanently recorded, and an analysis phase during which differences in responses to different

types of test stimuli are numerically quantified to calculate a statistical classifier for a categorical test result. The examiner may also provide the examinee an opportunity to explain any physiological responses and resolve any remaining inconsistencies.

1.1.2 **Evidentiary Examination**: A polygraph examination in which the written and stated purpose agreed to by the parties involved is to provide a diagnostic opinion as evidence in a pending judicial proceeding.

1.1.3 **Paired Testing Examination**: Polygraph examinations conducted in tandem on two or more individuals by different examiners who are mutually blind to the other test results regarding a single central contested fact to which all examinees are expected to know the truth thereof. Paired-testing is used by voluntary stipulation between the testifying parties to resolve disputed facts.

1.1.4 **Investigative Examination**: A polygraph examination which is intended to supplement and/or assist an investigation and for which the examiner has not been informed and does not reasonably believe that the results of the examination will be tendered for admission as evidence in a court proceeding. Investigative examinations may be conducted for screening purposes or to investigate known allegations or known incidents.

1.1.5 **Diagnostic examination**: An event-specific evidentiary or investigative polygraph examination conducted to assist in determining the veracity of an examinee regarding his or her knowledge of or involvement in a reported issue or allegation. Diagnostic examinations may address a single aspect or multiple-facts of an event.

1.1.6 **Screening examination**: A polygraph examination conducted in the absence of a reported incident or allegation. Screening examinations may be conducted as single issue or multiple issue exams.

1.1.7 **Test data analysis** in polygraph refers to any structured method, whether manual or automated, for the evaluation and interpretation of the recorded physiological data in terms of probabilistic margins of uncertainty and/or categorical test decisions concerning the examinee's truthfulness or concealed knowledge. Decisions for diagnostic and screening examinations include:

1.1.7.1 **Diagnostic Opinion**: A professional opinion based on the results of a polygraph technique that meets the criterion validity requirements for evidentiary testing or paired testing. Results of deception tests can be described in terms of statistical significance, and are normally reported using the terms Deception Indicated, No Deception Indicated, Inconclusive, and No Opinion (DI or NDI, INC, or NO). Test results of recognition tests are normally reported sing the terms Recognition Indicated, No Recognition Indicated, or No Opinion (RI, NRI, NO).

1.1.7.2 **Screening Opinion**: A professional opinion based on the results of a polygraph technique that meets the requirements for screening purposes; normally reported using the terms Significant Response, No Significant Response, Inconclusive, or No Opinion (SR, NSR, INC, or NO).

1.1.7.3 **Polygraph Technique**: A polygraph technique consists of a combination of: 1) a polygraph testing format for which there is a published description of test administration procedures that conforms to evidence-based principles for target selection, test question construction, and test administration; and 2) a published description of the test data analyses model, including physiological features, transformation, decision rules, and normative data.

1.1.7.3.1 Polygraph techniques for evidentiary examinations shall be those for which there exists at least two published empirical studies, original and replicated, demonstrating an unweighted average accuracy rate of 90% or greater excluding inconclusive results, which shall not exceed 20%.

1.1.7.3.2 Polygraph techniques for paired testing shall be those for which there exists at least two published empirical studies, original and replicated, demonstrating an

unweighted average accuracy rate of 86% or greater, excluding inconclusive results, which shall not exceed 20%.

1.1.7.3.3 Polygraph techniques for investigative testing shall be those for which there exist at least two published empirical studies, original and replicated, demonstrating an unweighted average accuracy rate of 80% or greater, excluding inconclusive results, which shall not exceed 20%.

1.1.7.3.4 Polygraph techniques used for screening purposes shall be those for which there exist at least two published empirical studies, original and replicated, demonstrating an unweighted accuracy rate that is significantly greater than chance, and should be used in a "successive hurdles" approach which entails additional testing with validated methods when the screening test is not favorably resolved.

1.1.7.4 A Polygraph Examiner: a person who meets the training and education requirements as set forth in the APA Bylaws.

1.2 Examiner Responsibilities

1.2.1 A polygraph examiner shall, where applicable, comply with all continuing education requirements. Practicing examiners shall complete a minimum of 30 continuing education hours every two years in coursework related to the field of polygraph. Examiners are responsible for maintaining their own records to document that they have met the continuing education requirement.

1.2.2 Examiners shall accurately represent their recognized professional body membership category, their academic credentials, licensure, and certification status.

1.2.3 The examiner should make reasonable efforts to determine that the examinee is a suitable candidate for polygraph testing. Basic inquiries into the medical and psychological condition of the examinee should be made where allowed by law. Mental, physical, or medical conditions of the examinee that are observable by or reasonably known to the examiner should be considered when conducting and evaluating an examination.

1.3 Instrumentation and Recording

1.3.1 Polygraph examinations shall be conducted with properly functioning instrumentation that records with, at a minimum, the following physiological data:

1.3.1.1 Respiration patterns recorded by pneumograph components. Thoracic and abdominal patterns should be recorded separately, using two pneumograph components;

1.3.1.2 Electrodermal activity reflecting relative changes in the conductance or resistance of electrical current by the epidermal tissue;

1.3.1.3 Cardiovascular activity including changes in relative blood pressure,pulse rate, ad pulse amplitude; and

1.3.1.4 A seat activity sensor.

1.3.1.5 Other physiological data may also be recorded during testing, but may not be used to formulate probabilistic or categorical conclusions unless their validity is supported by replicated and published research.

1.3.2 Physiological recordings during each test shall be continuous and should be of sufficient amplitude to be easily readable by the examiner and any reviewing examiner.

1.4 Test Location and Conditions

1.4.1 The testing environment should be reasonably free from distractions.
1.4.2 Examiners conducting polygraph examinations during public viewing are prohibited from rendering opinions regarding the truthfulness of the examinees on the basis of these examinations. Examiners should ensure that reenactments of polygraph examinations are clearly conveyed as such to viewers. If the examiner determines that the reenactment will not or has not been clearly conveyed as a reenactment, the examiner shall immediately notify the APA National Office.

1.5 Preparation

1.5.1 Prior to an examination, the examiner shall dedicate sufficient time to identify and discuss the examination issues and potential problem areas.

1.6 Pretest Practices

1.6.1 The examiner shall obtain information sufficient to identify the examinee.
1.6.2 The examiner shall obtain the informed consent of the examinee prior to testing. It is recommended that the informed consent of the examinee be obtained after an overview of the polygraph process, including polygraph instrumentation and sensors, use of video/audio recording, issues to be discussed, requirements for cooperation during testing, and the need to report information and results to the referring professionals.
1.6.3 The examiner shall review all test questions prior to recording the physiological responses of the examinee.
1.6.4 The examiner shall conduct the examination in a neutral manner and shall not display or express any bias regarding the truthfulness of the examinee prior to the completion of testing.

1.7 Testing

1.7.1 A Member polygraph examiner shall use evidence-based validated testing techniques. For purposes of these standards, a testing technique shall be considered valid if supported by research conducted in accordance with the APA's research standards. Where examinations deviate from the protocols of a validated polygraph technique, the deviations should be explained in writing.
1.7.2 Nothing in these standards of practice shall be construed as preventing examiners and researchers from investigation and developing improved methods. Polygraph techniques that do not meet these standards for validation shall be considered experimental methods.
1.7.3 Field examiners who employ experimental techniques shall be in compliance with applicable law related to human subject research and should inform the examinee and the party requesting the examination of the use of any experimental techniques. Results from experimental techniques used in field settings shall not be used in isolation to render diagnostic or screening decisions.
1.7.4 Nothing in these standards of practice shall be construed as prohibiting the use of other supportive methodologies that do not meet the requirements of these standards (e.g.: Yes Test, Searching Peak of Tension, etc.). However, non-validated techniques shall not be used in isolation to render screening or diagnostic decisions
1.7.5 Examiners shall conduct an acquaintance test for all diagnostic, evidentiary, paired---testing, initial screening, and initial investigative examinations.
1.7.6 Questions used in the assessment of truth and deception shall be followed by time intervals of not less than 20 seconds from question onset to question onset.
1.7.7 Examiners should use standardized chart markings.
1.7.8 An audio and video recording of all phases of the exam which include both

The examiner and examinee shall be maintained as part of the examination files, consistent with agency policy, regulation or law, for a minimum of one year.

1.7.9 A member polygraph examiner shall not conduct more than four diagnostic or three evidentiary examinations in one day, and no more than five examinations of any type in one day.

1.8 Scoring

1.8.1 Examiner conclusions and opinions shall be based on validated scoring methods and decision rules.

1.8.2 Examiner notes shall have sufficient clarity and precision so that another examiner could read them and replicate the analysis and conclusion.

1.8.3 Examiners shall not disclose or report the results of the examination until the analysis has been completed.

1.8.4 Examiners shall maintain the confidentiality of their work conducted until a release by the client is obtained.

1.8.5 An examiner subject to quality control review shall fully disclose all pertinent information regarding the case under review.

1.8.6 Ensure that all scores are verified either by pure review or by keeping an alternative /supplement scorecard

Retest procedure:

Screening: If a retest is requested on a Screening test – a diagnostic examination on the question that showed "significant responses" should be done.

Diagnostic: If a retest is requested on a Diagnostic test – the same technique and questions should be used if the initial test was a validated test. If the first test was not validated (valid technique, questions and scoring) the retest should be regarded as a new test, following a validated technique.

CODE OF ETHICS

1. Restrictions on Examinations

A Polygraph Examiner shall not conduct a polygraph examination when there is reason to believe that the examination is intendent to circumvent or defy the law

2. Fees

- A Polygraph Examiner shall not solicit or accept fees, gratuities or gifts that are intended to influence his/her opinion, decision or report.
- A Polygraph Examiner shall not set any fee for polygraph services which is contingent upon the findings or results of such services, nor shall any Polygraph Examiner change his/her fee as a direct result of his/her opinion or decision subsequent to a polygraph examination.

3. Standards of Reporting

A Polygraph examiner shall not knowingly submit, or permit employees to submit, a misleading or false polygraph examination report. Each polygraph report shall be a factual, impartial and objective account of information developed during the examination, and the examiner's professional conclusion based on analysis of the polygraph data.

4. Advertisements

A Polygraph examiner shall not knowingly make, publish, or cause to be published, any false or misleading statements or advertisements relating to the Polygraph Profession. No Polygraph Examiner shall make any false representation as to category of membership in any Association, their credentials, their licensure, and their certification status.

5. Release of Non-relevant information

A Polygraph examiner shall not disclose to any person any irrelevant personal information gained during the course of a polygraph examination which has no connection to the relevant issue and which may embarrass or tend to embarrass the examinee, except where such disclosure is required by law.

6. Restrictions on Examination issues

A Polygraph examiner shall not include in any polygraph examination, questions intended to inquire into or develop information on activities, affiliation or beliefs on religion, politics, or race except where there is relevancy to a specific investigation.

7. ACFE Oversight Authority

A Polygraph Examiner who administers or attempts to administer any polygraph examination in violation of the Code of Ethics or the Standards of Practice may be subjected to investigation, censure, suspension, expulsion or other discipline as deemed appropriate, as provided by ACFE Bylaws.

MODEL POLICY ON SUITABILITY

Evaluation of Examinee Suitability for Polygraph Testing

A Model policy was published in 2012 by the APA intending to assist polygraph examiners, referring professionals, managers, law enforcement agencies and government organizations to make better decisions regarding the suitability of potential polygraph examinees to undergo testing that will further the goal(s) for which the testing is being considered. The Policy should assist Polygraph examiners to make more effective judgements about whether to proceed with an examination where there are questions about the suitability of the examinee and should be used as a guide.

- Polygraph testing is a decision support tool intended to add incremental validity to investigate and evidentiary decisions.
- Polygraph testing should not replace the need for professional decision making. Any or all of the following objectives should be considered as sufficient reason to complete polygraph testing:
    - Increased disclosure of information
    - Increased deterrence of problems
    - Increased detection of involvement or non-involvement in behaviours or criminal activities

- Persons who are suitable to undergo polygraph testing should minimally meet the following requirements:
    - Age 12 or older
    - Adequate abstract thinking
    - Insight into their own and other's motivation, as demonstrated by the ability to express basic reasons for being honest or dishonest
    - Possess a basic understanding of right from wrong
    - Understand the difference between truth and lies
    - Anticipate rewards and consequences for lying and behaviour
    - Maintain consistent orientation to date, time and location
- Unsuitability for polygraph – examiners should not conduct polygraph examinations on individuals determined to be unsuitable. Individuals deemed unsuitable for polygraph testing should not be tested until the identified conditions have improved, and when the individual is able to adequately attend to the examination context. Conditions that should preclude an examinee from suitability for polygraph testing include the following:
    - Psychosis (lack of contact with reality) or psychotic condition that is active, un-treated or un-managed at the time of the examination.
    - Mean Age Equivalence or Standard Age Score is below 12 years as determined through standardized psychometric testing
    - Severe mental retardation or measured IQ less than 55, as determined through standardized psychometric testing
    - Persons who require continuous observation or assistance due to psychiatric or developmental conditions
    - Observable impairment due to the influence of prescribed or non-prescribed controlled substances including alcohol.
- Polygraph examiners should conduct all examinations in a manner that is sensitive to any medical, mental health or developmental issues that may affect the examinee's functioning or the quality of the examination data. No published research or theoretical rationale exists suggesting that any medical, mental health or development issues would result in erroneous examination result for individuals who meet the normal functional requirement for polygraph examinees.
    - Medical – persons with some acute or chronic medical/physical conditions may be regarded as marginally suitable for polygraph testing, at which times the test result should be accordingly qualified and viewed with caution. However, there is no published research or theoretical rationale suggesting that any medical condition would interfere with the polygraph test or that polygraph testing would interfere with known medical conditions.

- HIV status not to be disclosed. His/her status might be noted providing that consent was obtained before submitting a test.

- Except as precluded by law or regulations, examiners should note in the examination report any diagnosed acute or chronic medical condition. Medical conditions, including stable injuries, depending on their severity, do not necessarily preclude an individual from being suitable for polygraph testing. However, it may at times be advisable to delay polygraph testing until the prospective examinee's health has improved.

- Examiners should defer to medical professionals when determining the suitability of prospective examinees that are pregnant. Examiners should require a statement or waiver from a physician, or other medical professional, attesting to the fact that the pregnancy is normal and uncomplicated with no expected reason that polygraph testing would interfere with the pregnancy. Examiners should delay polygraph testing of any individual determined to be experiencing a medically complicated or high-risk pregnancy.

- Medications. Persons who require the administration of multiple prescription medications to manage the potentially overwhelming effects of a diagnosed medical or mental health condition may be regarded as marginally suitable for polygraph testing. Test results for these individuals should be accordingly qualified and viewed with caution

- There is no theoretical rationale or published research suggesting that any medications would result in erroneous polygraph examination results. Clinical commonsense suggests that persons who function optimally while taking prescription medications may produce polygraph examination data of optimal interpretable quality while taking medications as directed by a doctor. There is no way to predict the exact effects of medications for any individual. Medication effects may vary with the types and numbers of medication, dosages, length of time on medications, in addition to the individual's physiology. Some increase in inconclusive results may occur from some medications, however, medications do not act differentially among the polygraph test questions, and no known increase in decision errors is expected from medication use. Except as precluded by law or regulations, examiners should note in the examination report a list of the examinee's reported prescription medications, and any corresponding acute or general medical health conditions, including the absence of understanding of the reasons for a prescription medication.

- Examiners should advise examinees who take prescriptions to take all prescription medications as prescribed by their medical or psychiatric provider.

- Psychiatric. Persons who are actively psychotic should not undergo polygraph testing. However, individuals may be tested when their psychiatric conditions have stabilized. Individuals diagnosed with psychotic mental health disorders should be viewed as marginally suitable for polygraph testing. Test results for

these persons should be reported as qualified and the test results should be viewed with caution.

- Except as precluded by law or regulations, examiners should note in the examination report any examinee that reports being diagnosed with a serious mental health condition, including medically or age-related dementia/delirium, and the use of psychotropic medications. Psychiatric conditions do not necessarily preclude an individual from being tested; although it may be important to delay polygraph testing until the individual's psychiatric issues are stable or effectively managed. Examiners should not test persons who require continuous observation or assistance until the individual's psychiatric and functional stability has improved.

- Developmental. Persons with diagnosed developmental disorders should not be tested unless it can be reasonably expected that the goals of the program, investigation, agency, or individual can be met by the polygraph testing, and that the testing process will not jeopardize the health or safety of the examinee. These individuals should be viewed as marginally suitable for polygraph testing. Their test results should be accordingly qualified and viewed with caution.

    - Examiners should determine suitability on a case-by-case basis for prospective examinees that have diagnosed developmental disorders, such as serious impairment in cognition/memory, learning, language, communication, conceptual functioning, or temporal/organization deficits.

    - Persons whose functioning is profoundly limited (e.g., whose measured IQ is less than 55), should be regarded as unsuitable for polygraph testing.

Forensic Processes – Herewith a list of the applicable and acceptable processes, procedures, instrumentation, and tools of trade and/or references used in the specific forensic science discipline.

APA VALIDATED TECHNIQUES

Examiners are required to use a "valid" technique as a Standard of Practice. Below Meta-analysis project that was published and made effective 1/1/2012. Below can change because of new published researched and should be updated accordingly.

Executive Summary

Table 1. Mean (standard deviation) and {95% confidence intervals} for correct decisions (CD) and inconclusive results (INC) for validated PDD techniques. References can be found at the end of the complete report.

Evidentiary Techniques/ TDA Method	Paired Testing Techniques/ TDA Method	Investigative Techniques/ TDA Method
Federal You-Phase / ESS[1] CD = .904 (.032) {.841 to .966} INC = .192 (.033) {.127 to .256}	AFMGQT[4,8] / ESS[5] CD = .875 (.039) {.798 to .953} INC = .170 (.036) {.100 to .241}	AFMGQT[6,8] / 7 position CD = .817 (.042) {.734 to .900} INC = .197 (.030) {.138 to .255}
Event-Specific ZCT / ESS CD = .921 (.028) {.866 to .977} INC = .098 (.030) {.039 to .157}	Backster You-Phase / Backster CD = .862 (.037) {.787 to .932} INC = .196 (.040) {.117 to .275}	CIT7 / Lykken Scoring CD = .823 (.041) {.744 to .903} INC = NA
IZCT / Horizontal[2] CD = .994 (.008) {.978 to .999} INC = .033 (.019) {.001 to .069}	Federal You-Phase / 7 position CD = .883 (.035) {.813 to .952} INC = .168 (.037) {.096 to .241}	DLST (TES)[8] / 7 position CD = .844 (.039) {.768 to .920} INC = .088 (.028) {.034 to .142}
MQTZCT / Matte[3] CD = .994 (.013) {.968 to .999} INC = .029 (.015) {.001 to .058}	Federal ZCT / 7 position CD = .860 (.037) {.801 to .945} INC = .171 (.040) {.113 to .269}	DLST (TES)[8] / ESS CD = .858 (.037) {.786 to .930} INC = .090 (.026) {.039 to .142}
Utah ZCT DLT / Utah CD = .902 (.031) {.841 to .962} INC = .073 (.025) {.023 to .122}	Federal ZCT / 7 pos. evidentiary CD = .880 (.034) {.813 to .948} INC = .085 (.029) {.028 to .141}	-
Utah ZCT PLT / Utah CD = .931 (.026) {.879 to .983} INC = .077 (.028) {.022 to .133}	-	-
Utah ZCT Combined / Utah CD = .930 (.026) {.875to .984} INC = .107 (.028) {.048 to .165}	-	-
Utah ZCT CPC-RCMP Series A / Utah CD = .939 (.038) {.864 to .999} INC = .185 (.041) {.104 to .266}	-	-

[1] Empirical Scoring System.

[2] Generalizability of this outlier result is limited by the fact that no measures of test reliability have been published for this technique. Also, significant differences were found in the sampling distributions of the included studies, suggesting that the samples data are not representative of each other, or that the exams were administered and/or scored differently. One of the studies involved a small sample (N = 12) that was reported in two articles, for which the participating scorer was also the technique developer. One of the publications described the study as a non-blind pilot study. Both reports indicated that one of the six truthful participants was removed from the study after making a false-confession. The reported perfect accuracy rate did not include the false confession. Neither the perfect accuracy nor the .167 false-confession rate are likely to generalize to field settings.

[3] Generalizability of this outlier result is limited by the fact that the developers and investigators have advised the necessity of intensive training available only from experienced practitioners of the technique, and have suggested that the complexity of the technique exceeds that which other professionals can learn from the published resources. The developer reported a near-perfect correlation coefficient of .99 for the numerical scores, suggesting an unprecedented high rate of inter-scorer agreement, which is unexpected given the purported complexity of the method. Additionally, the data initially provided to the committee for replication studies included only those cases for which the scorers arrived at the correct decision, excluding scores from those cases for which the scorers did not achieve the correct decision. Missing scores were later provided to the committee for both the Mangan et al (2008) and Shurani and Chavez (2009) studies. However, the resulting sampling means were different from those reported for both replication studies. Because of these discrepancies, the statistical analysis was not re-calculated with the missing scores, and the reported analysis reflects the sampling distribution means as reported. Sampling means for replication studies should be considered devoid of error or uncontrolled variance.

[4] Two versions exist for the AFMGQT, with minor structural differences between them. There is no evidence to suggest that the performance of one version is superior to the other. Because replicated evidence would be required to reject a null-hypothesis that the differences are meaningless, and because the selected studies include a mixture of both AFMGQT versions, these results are provided as generalizable to both versions. AFMGQT exams are used in both multi-facet event-specific contexts and multi-issue screening contexts. Both multi-facet and multi-issue examinations were interpreted with decision rules based on an assumption of criterion independence among the RQs.

[5] The AFMGQT produced accuracy that is satisfactory for paired testing only when scored with the Empirical Scoring System.

[6] There are two techniques for which there are no published studies but which are structurally nearly identical to the AFMGQT: the LEPET and the Utah MGQT. Validity of the AFMGQT can be generalized to these techniques if scored with the same TDA methods.

[7] Concealed Information Test, also referred to as the Guilty Knowledge Test (GKT) and Peak of Tension test (POT). The data used here were provided in the meta-analysis report of laboratory research by MacLaren (2001).

[8] Studies for these PDD techniques were conducted using decision rules based on the assumption of criterion independence among the testing targets. Accuracy of screening techniques may be further improved by the systematic use of a successive-hurdles approach.

There are five diagnostic features for evaluating the respiratory channel (these features result in changes in the measurement of respiratory line length):

1. Suppression of respiration amplitude
2. Slowing of respiration rate
3. Changes in inhalation and expiation ratio
4. Apnea (end of exhalation cycle)
5. Increase in respiration baseline.

The primary diagnostic feature of the electro dermal (ED) recording is the change in amplitude occurring during scoring window. Empirical evidence indicates the amplitude of the ED response is diagnostic. Some use secondary diagnostic features of complexity and duration.

The primary diagnostic feature of the cardio tracing is a rise in the baseline. This diagnostic feature has been empirically verified. Secondary feature is the duration of the blood pressure change.

There are two primary diagnostic features of the photoelectric plethysmograph. Empirical research identified decrease in pulse amplitude and the duration of the response to be diagnostic.

Assignment of values to reactions should be based upon scoring systems verified and cross validated empirically and peer reviewed academic research.

Relevant question rules:

- Relevant Questions must be behaviourally descriptive of the subject's suspected conduct during the issue in question
- Should be as clear and concise as possible (easily understood wihout mental uncertainty)
- Must be a single issue
- Must pose a dichotomy
- Must not be accusatory or contain the inference that the subject has knowledge
- Place most qualifiers at the beginning
- Exercise caution when using exact dates, times or amount in certain questions
- Avoid emotion provoking words as far as possible
- Avoid legal terms to describe actions as far as possible
- Avoid language that does not match the subject's intellect
- Avoid references to mental state or motivation (unless admission has been made)

Terminology – Terminology used with a short description of the meaning/reference in the specific forensic science discipline.

Acquaintance test

Generic term for stimulation test. The acquaintance test serves several purposes: to familiarize the examinee with the test procedures; to properly set the gains and centering; to help detect countermeasures; and to assess the range of responsiveness of the examinee.

Analog instrument

A device that records data in a continuous form. An analog polygraph registers waveforms as continuous lines on a strip chart, whereas a digital instrument records them as discrete points. While many analog instruments are currently in use, the trend has been toward computerized instrumentation.

Axciton

An American manufactured computer polygraph developed and marketed by Bruce White of Houston, Texas.

Blind chart analysis

Evaluation of PDD recordings without the benefit of extra polygraphic information, such as subject behavior, case facts, pretest admissions, base rates of deception, etc. Studies employ various degrees of "blindness." It is a popular research approach to gauge interrater reliability. Assessments of the accuracy of PDD test evaluation techniques also use blind chart analysis.

Cardiograph

General term for any recording of heart activity. In PDD the use of a blood pressure cuff to monitor relative arterial blood pressure changes and pulse wave is more precisely described as sphygmography (recording of the arterial pulse) or occlusion plethysmography (partial blockage of circulation to measure volume changes in a body part). While cardiograph is not incorrect in this context, it lacks precision in denoting the actual phenomenon being recorded in PDD. The term cardiograph in the psychophysiological and medical literature most often refers to the electrocardiograph.

Community safety examinations

A broad category of examinations that serve to detect and deter illegal behaviors that jeopardize the safety of communities. Types of community safety examinations include Post-Conviction Sex Offender Testing (PCSOT), Intoxicated Drivers on Probation (IDOP), and Domestic Violence Offender Testing (DVOT).

Concealed Information Test (CIT)

Otherwise known as the Guilty Knowledge Test, The CIT is actually a series of tests, perhaps as many as 10, in which there is only one critical item in each series, much like the better-known Peak of Tension tests. The tests are constructed so that the order of the item presentations is randomly selected, except the first item which is used as a buffer. The theoretical operating mechanism of the CIT is there is greater signal value in the critical item for guilty examinees than in the irrelevant items. The CIT is believed to rely on cognitive processes, and is therefore not subject to false positives from nervous examinees. CIT tests could be used in a small proportion of all criminal cases where sufficient details were available to construct it, however in most crimes such details are lacking or would be already known to innocent persons via the media or investigating officers. Despite assertions of theoretical superiority of the CIT over the CQT, the CIT has practical limitations that have hindered its broad acceptance among field practitioners. Moreover, the preponderance of independent research suggests that false negatives may be a problem with the CIT. See Lykken (1959); MacLaren (2001); Podlesny (1993).

Confirmatory testing

PDD examination used to verify the statements of suspects, witnesses, and victims.

Deception Indicated (DI)

Along with NDI (No Deception Indicated) and Inconclusive, a conventional term for a polygraph outcome. A decision of DI in PDD means that (1) the physiological data are stable and interpretable, and (2) the evaluation criteria used by the examiner led him to conclude that the examinee is not wholly truthful to the relevant issue under investigation. The DI and NDI decision options are used primarily in single-issue testing, and they correspond with SR (Significant Response) or SPR (Significant Physiological Responses) and NSR (No Significant Response) or NSPR (No Significant Physiological Responses) in multiple-issue, or screening, examinations with the US Government.

Electro dermal activity (EDA)

All exosomatic and endosomatic changes in the electrical properties of the skin. See: Handler et al. (2010).

Electro dermal response (EDR)

Reaction of skin measured by changes in its electrical properties, including skin resistance (SR), skin conductance (SC), and skin potential (SP). See: Handler et al. (2010).

False negative

The failure to detect the presence of a event or item. A false negative in PDD refers to the incorrect decision that deception was not practiced by the examinee. Also called a Type-2 error.

False positive

The false detection of something that is not actually present. In PDD, it is the incorrect decision that deception was practiced by the examinee, also called a Type-1 error.

Galvanic Skin Response (GSR)

A superseded term for the electro dermal response measured exosomatically by the change in the electrical resistance of skin. GSR is sometimes erroneously called Galvanic Skin Resistance or Galvanic Skin Reflex. The modern term is electro dermal response (EDR).

Inconclusive

PDD outcome where testing was completed, but neither deception nor truthfulness can be diagnosed because the physiological data are inconsistent, inadequate, artifact, or contaminated. There is disagreement whether an inconclusive outcome should be considered an error when computing validity of PDD. Some argue that examinees are either truthful or deceptive, but never inconclusive; therefore, such an outcome is necessarily in error. Conversely, in the forensic sciences it has been asserted that the inconclusive outcome is used to assess utility, but not validity, because samples in forensic disciplines are often inadequate, or contaminated. For example, fingerprint data is more frequently inadequate than adequate, though fingerprint analysis is considered highly accurate in spite of the relatively modest percentage of cases that it can render a positive identification. Because of this controversy, PDD validity studies report accuracies both with and without inconclusive results and should report inconclusive rates for each category of test subject. In practice, inconclusive outcomes are the default results when the criteria for deception or not-deception decisions are not satisfied and are a matter of the decision thresholds employed. Alternate term is indefinite, or no opinion.

Irrelevant question

A question designed to be emotionally neutral to examinees. Irrelevant questions are most often placed in the first position of a question list because an orienting response usually follows the presentation of the first question and is of no diagnostic value. In CQT formats it is also used after a relevant or comparison question that has elicited a strong response so as to permit physiologic arousal levels to

return to baseline before presenting another question. Irrelevant questions are used in nearly every type of PDD test. Also called norms or neutrals.

Karpman's classification of lying

Classification of lies and their underlying motives. They are benign lies (for social conventions), hysterical lies (to attract attention), defensive lies (to avoid an adverse situation), compensatory lies (to impress another), malicious lies (for gain), gossip (exaggeration), implied lies (deceive with partial truths), "love intoxication" lies (idealistic exaggeration), and pathological lies (self-destructive or maladaptive). See: Karpman (1949).

Lafayette Instrument Company

An American manufacturer of polygraphs, both analog and computerized, founded by Max Wastl. Headquarters is located in Lafayette, Indiana.

Limestone Technologies

A Canadian manufacturer of computerized polygraph instruments. Headquartered in Odessa, Ontario, Canada.

No Deception Indicated (NDI)

In conventional PDD, NDI signifies that (1) the polygraph test recordings are stable and interpretable and (2) the evaluation criteria used by the examiner led him to conclude that the examinee was truthful to the relevant issue. The NDI and DI (Deception Indicated) decision options are used in specific-issue testing and correspond to NSPR (No Significant Physiological Responses) and SPR (Significant Physiological Responses) in multiple-issue, or screening, examinations.

Numerical analysis

Systematic assignment of numbers to physiologic responses, along with decision rules, so that PDD data analysis is more objective and standardized. The first such system was published by Dr. John Winter in 1936. Contemporary numerical analytic methods include the Rank Order Scoring System, Horizontal Scoring System, 3-position scoring system, 7-position scoring system, Lykken Scoring. Sometimes referred to as semi-objective analysis.

Photoplethysmograph (PPG)

The PPG uses the reflection of a red light emitted into the skin to detect changes in the volume of blood in the upper layers of skin, typically recorded at the finger when using a polygraph. Physiological arousal is marked by a constriction in the pulse amplitude as blood is shunted from the extremity during activation of the sympathetic nervous system. See: Geddes (1974); Hander & Krapohl (2007); Kircher & Raskin (1988).

Pneumograph

A device that records respiration and one of the three traditional channels of the modern polygraph used in PDD. Most contemporary polygraphs use two pneumograph recordings: abdominal and thoracic. The types of sensors include the traditional corrugated rubber tube, the mercury strain gauge, or the newer piezoelectric.

Polygraph

By definition, an instrument that simultaneously records two or more channels of data. The term now most commonly signifies the instrument and techniques used in the psychophysiological detection of deception, though polygraphs are also used in research in other sciences. In PDD the polygraph traditionally records physiologic activity with four sensors: blood pressure cuff, electro dermal sensors, and two respiration sensors. Some instruments also record finger pulse amplitude using a PPG.

and offered the first accredited Masters program in PDD. The Reid Technique, which emphasizes global evaluation, is used by some PDD examiners today.

Stoelting Instruments

C.H. Stoelting of Chicago, Illinois. An American manufacturer of analog and computer polygraphs.

Technique

All practices taking place in a polygraph examination, including pretest procedures, question formulation, format, number of tests, test sequencing, and scoring and decision rules.

Test data analysis (TDA)

Newer expression for polygraph chart interpretation, a change prompted by digital polygraphs where physiological data are displayed on computer screens rather than paper strip charts.

True negative

Correct decision that the variable of interest is not present (i.e., an accurate PDD outcome of innocence).

True positive

Correct decision that the variable of interest is present (i.e., an accurate PDD outcome of guilt).

I would like to thank the ACFE SA for the opportunity to assist in compiling these standards.

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