Congratulations on purchasing this innovative home Polygraph machine!

Please read the instruction manual below to easily setup your unit. Read the full document to understand the nuances of polygraph exams.

USB Polygraph Installation & Instructions

***Note You must download & install the software from the Internet to operate the USB Polygraph**

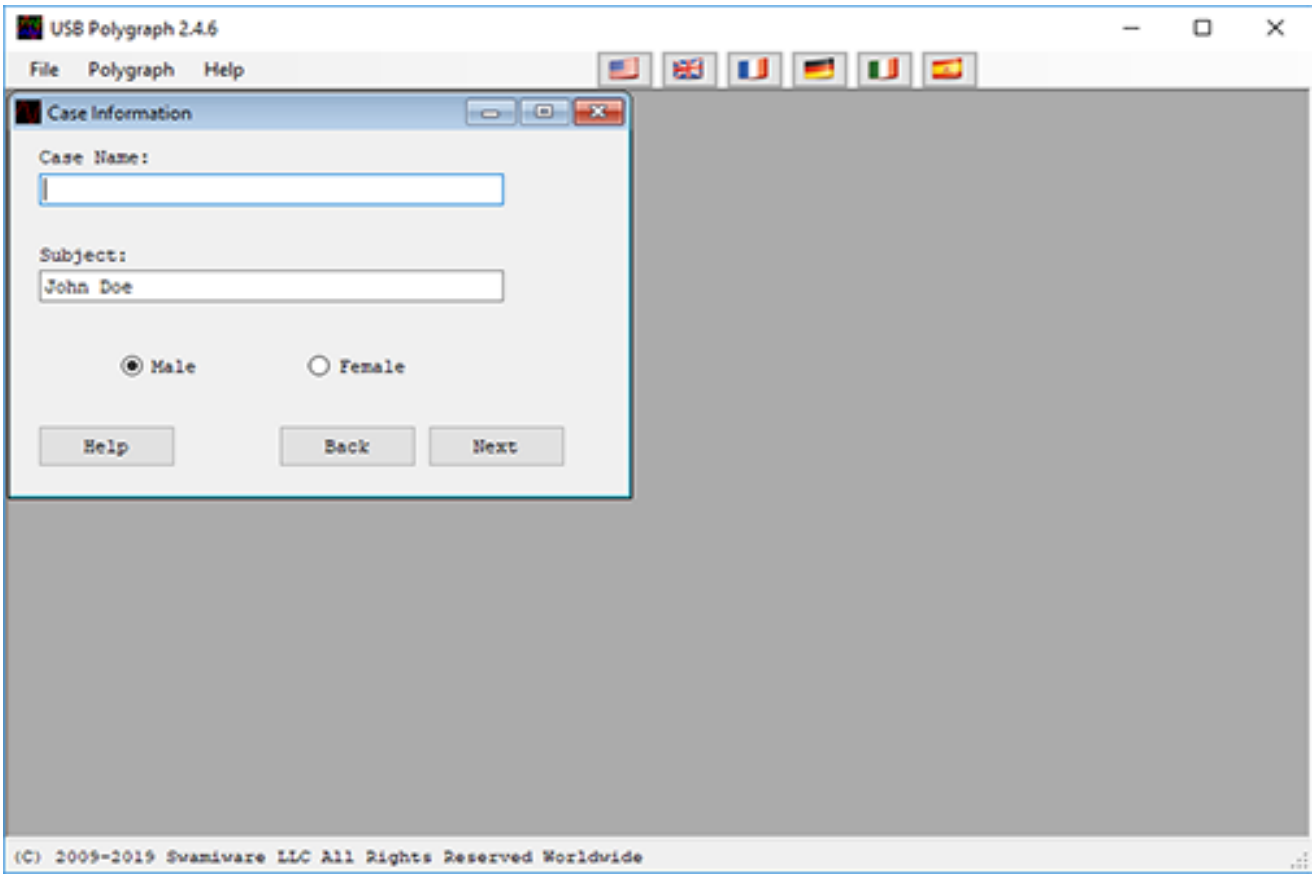
1. Install the software first by going to the downloads page in your web browser. You can also browser to http://www.usbpolygraph.com/downloads.aspx
2. Under Downloads, click *CLICK HERE TO DOWNLOAD*
3. Run the software or Save to Computer then Run Software to install it on your PC
4. Locate the program on your Windows PC under **Start->Swamiware->USB Polygraph**
5. Plug in the USB Polygraph's USB cable into your PC
6. The device is now setup

Using software

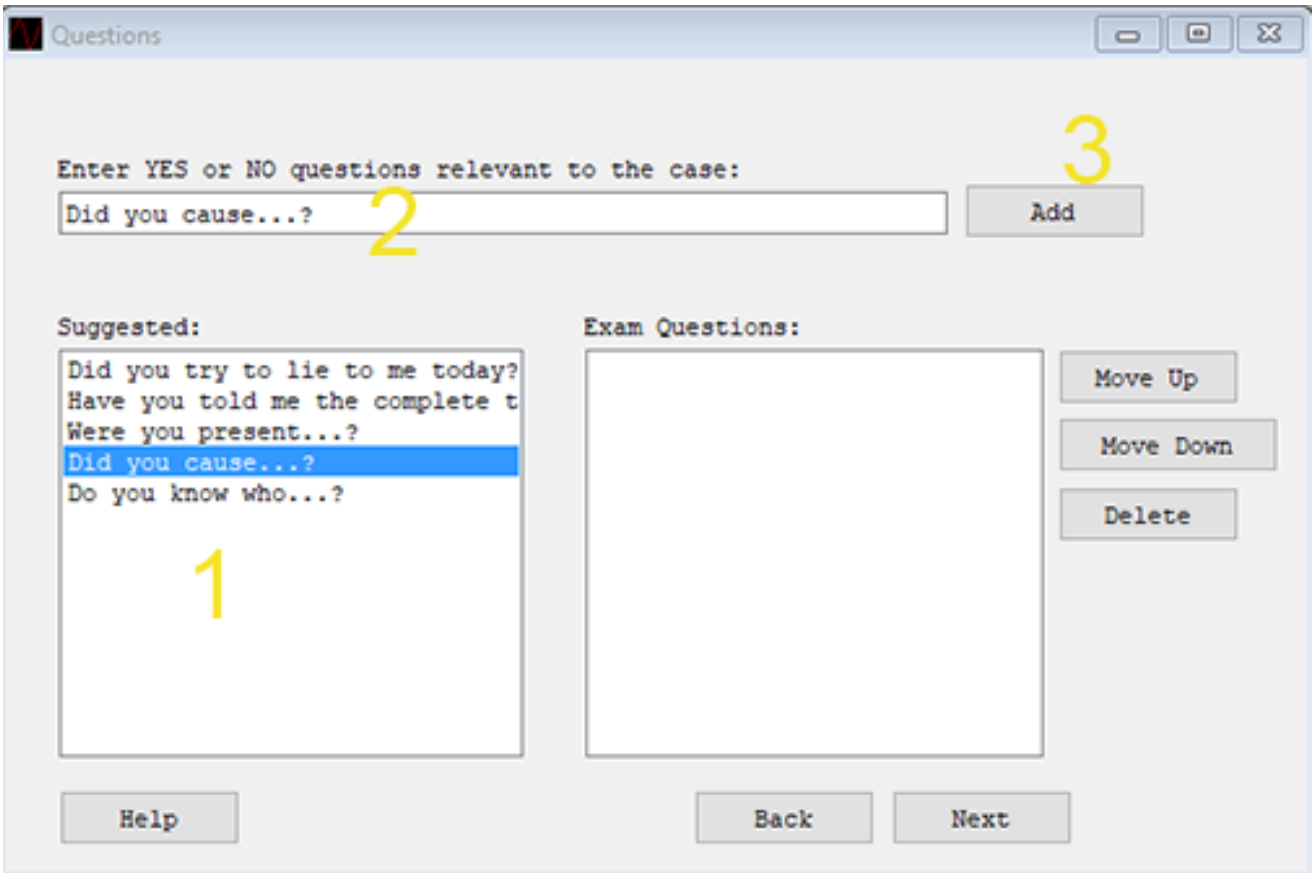
Practice before testing a real Subject

To run software go to **Start->Swamiware->USB Polygraph** or click the shortcut on your Desktop

1. The default Window shows the **Exam Wizard**. The Exam Wizard walks you through the questioning process. Practice before doing the actual exam.

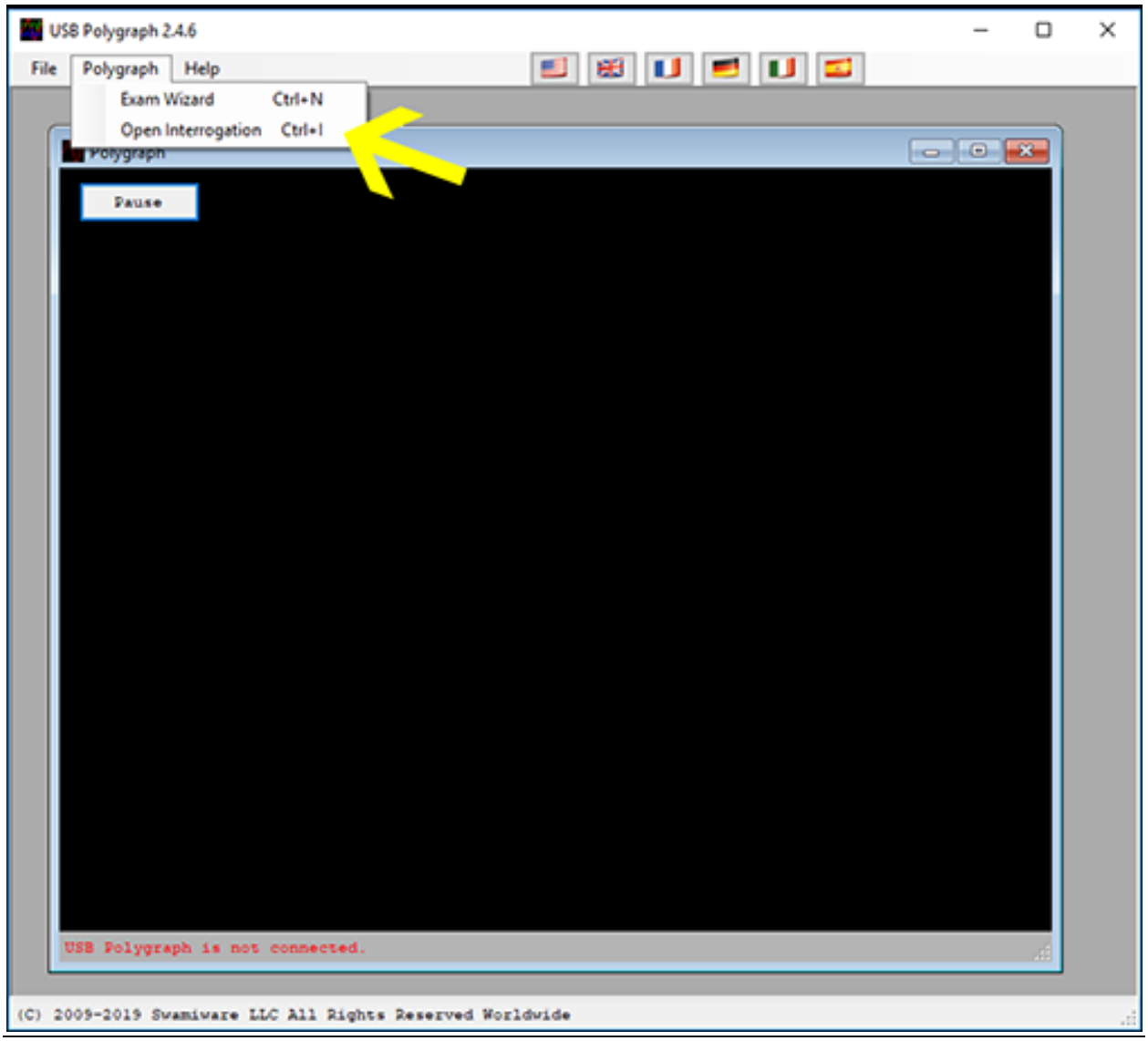


Enter a Case Name, e.g. Stolen Bike, and the Subject (the person taking the test) name, e.g. Bill Smith. You can click the Help button during the Wizard to get more help in your web browser. Click Next to continue.



Click (1) to select a suggested question. Question will appear on (2), where you can edit or do a new question. Click Add (3) to add it to the list of questions you want to ask the Subject. Re-order questions by selecting an Exam Question and click Move Up, Move Down, or Delete. Click Next to continue. And follow instructions.

2. If you would like to use just the **Open Interrogation** mode on the File bar choose **Polygraph->Open Interrogation**



In this mode you will see the output from the sensors and can ask questions freely while interrogating subject and observing changes in the data and can observe the Subjects behavior.

Introduction

What is truth? The philosopher Descartes, stated *"A belief will be accepted as true only if it cannot be doubted."* It's a philosophical question. People may believe something is true but it may not be. But still, they may believe it.

What we need to help determine truth is evidence. Evidence, and a confession are the ideal ways to know if something is the truth. You can have the evidence, but together with a confession, or admittance of the events in question, or an explanation that can be dissected is valuable. Some people convince themselves to believe things that are not true. So it's nice to have evidence.

Will a racing car heading directly toward a brick wall always crash into a heaping destruction of metal when it strikes the brick wall? The answer is no[1], but it will occur *most* of the time[2]. Truth is certainly a probability, and we want the highest probability of truth we can obtain.

One way to get the truth is through using a polygraph machine. Is the polygraph a good way to get the truth? Yes. Does the polygraph *always* work? No. But, you must use it with observation of the Subject, the data, the Subjects version of events, questioning and interrogation to get optimal results.

In episode 109 of the popular science show Mythbusters, they attempted to fool the polygraph by using pain to try and increase the readings when answering truthfully (so the machine will supposedly interpret the truthful and non-truthful answers as the same.) They also attempted to fool the polygraph by thinking happy thoughts when lying and thinking stressful thoughts when telling the truth to try and confuse the machine. However, neither technique was successful and the examiner Michael Martin correctly identified each guilty and innocent subject. The show also noted the widely held opinion that, when done properly, polygraphs are correct 80-99% of the time.[3]

A police officer interrogates a murder suspect, and uses a polygraph machine. The Subject, seems nervous, but who wouldn't be, being accused of murder. The data of the polygraph shows some deception. But as the officer interrogates he asks other questions and for elaboration on the story. Telling him the machine detected deception. Eventually, finding that the suspect knew the victim was a smoking a particular brand of cigarettes and where the murder occurred something only the killer would know. When confronted with this information, the suspect confesses. Using the evidence: information only the murderer would know, clues with the polygraph, and finally a confession gets the truth with very little doubt.

★**Confront the Subject with the proof when you have proof they are lying. Get their explanation or better, a confession.**

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[1] See Physics Quantum Tunnelling.
[2] See Shrodinger equation
[3] Mythbusters Beat the Lie Detector Episode featuring Michael Martin, Ep. 109

Polygraph exams administered by professional examiners typically cost $500-$1,000 per exam with some the typical machine costing around $3,000. The *USB Polygraph* software is the expert and uses algorithms, artificial intelligence, and data collected by sensors and input from you to determine the results.

History – In search of truth

In ancient India around 500 BC, priests tested suspected thieves by putting them into dark tents with donkeys whose tails were coated in soot. The suspects were told that the donkeys would bray if touched by thieves, and that the suspects should now pull the animals' tails. Those who left the tent with clean hands (indicating that they had not dared to touch the animals for fear of being found out as thieves by the donkeys' braying) were considered guilty [4]

In ancient China a test similar to a polygraph was used to test physical response. Dry rice was placed in a suspect's mouth. After the charges of the crime were read they were told to chew and spit out the rice. If the rice was dry, and still stuck to the mouth they were considered guilty. The assumption being, that people under stress tend to have a dry mouth. [5]

Similar to China, in the hill tribes of Rajmahal in northern Bengal the accused would prove his innocence by applying a red-hot iron nine times to their tongue. If their tongue was burned, he was put to death. The dry mouth equals a guilty physical response.

Psychology

A man is suspected for his wife's disappearance. Police are unsure the husband did it. Police arrest the man on a Friday night which will force him to spend at least a night in jail, and accuse him of murder using an *icing* technique. They know by human behavior and past offenders that if he paces his cell all night and can't sleep that he is probably innocent. If he sleeps like a baby, they know this implies guilt.

O.J. Simpson was asked to take a polygraph exam by the police, but didn't take it because his team asked did he ever dream about killing his wife. He replied yes. Sleep researchers contend dreams reflect an individual's emotions[6]. It was widely reported that OJ Simpson repeatedly failed polygraph exams administered by his defense team.[7]

★**Use the information gathered to determine likelihood of deception.**

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[4] Schafer, Elizabeth D. (2008). "Ancient science and forensics". In Ayn Embar-seddon, Allan D. Pass (eds.).p.41
[5] Schafer, Elizabeth D. (2008). "Ancient science and forensics". In Ayn Embar-seddon, Allan D. Pass (eds.). p.41
[6] Siegel, Jessica (Feb 5, 1995) "Dreams of Murder: What do they mean?" Chicago Tribune
[7] Newsmax.com - http://archive.newsmax.com/archives/articles/2001/7/11/62415.shtml

Other Lie Detecting Techniques

fMRI or functional magnetic resonance imaging has the Subject in a special MRI machine which detects parts of the brain using more oxygen. The technique attempts to detect deception at the source, the brain. And works even on the mentally ill[i8] but is not completely infallible. fMRI is 21% more likely to detect a lie than a polygraph[9].

Voice Stress Analysis uses computers to compare pitch, frequency, micro tremors, and intensity of the voice. The idea is when a person lies their vocal cords produce an involuntary distorted sound wave. Some claim 48% accuracy (a coin flip is 50%). The accuracy is not very convincing, but maybe helpful when used with other techniques.

Other techniques are eye tracking, truth serum (technique for an unwilling Subject), EEG, and brain observations.

Interrogation

Verbal interrogation questioning, finding holes, asking for more info for which a liar would stumble is recommended during the exam. Ask them to tell me more, explain this, the machine detected something when you have a hunch they are being deceptive. Or simply ask for more detail when you want to know more about the event.

In the HBO show *The Wire* police officers have a suspect believe they are taking a lie detector test by placing his hand on the scan section of paper copier machine. The cops pre-printed Truth or Lie on pages in the paper feed and asked loaded questions that a liar would respond with. The perp failed as per the hand print shown on the paper with Truth or Lie with each question and subsequently confessed. The perp was convinced this lie detecting machine (and not a copier) could 100% detect the truth.

★**Convince the Subject that the machine is 100% accurate and tell them you will get the truth, guaranteed.**

Collect Data

Use all the information you can to determine the truth. Polygraph data, interrogation information collection, physical observation, and even psychology.

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[8] Spence, SA; et al. (Sep 2001). "Behavioural and functional anatomical correlates of deception in humans". *NeuroReport*. **12** (13): 2849–2853

[9] Langleben, DD; et al. (Oct 2016). "Polygraphy and Functional Magnetic Resonance Imaging in Lie Detection: A Controlled Blind Comparison Using the Concealed Information Test". *J Clin Psychiatry*. **77** (10): 1372–1380.

Physical Response and truth

A polygraph machine detects physical response by detecting physiological characteristics such as pulse, breathing, body language and sweat. The idea is if someone is being deceptive then they are more likely to:

- Perspire
- Blink rapidly
- Leg shake, or twitch
- Have an increased pulse rate
- "Forget" to breathe, or breathe inconsistently
- Have a dry mouth
- Voice fluctuations
- Rapid head movement
- Act nervously
- Show micro expression reveals

You must get a baseline of the subject's physiological responses to know what is normal for him. And then ask the real questions to see the change. Fortunately, the *USB Polygraph*, automatically does this for you by generating control questions. All you need to do as the Examiner is read the questions to the Subject.

The software also allows you to note nervous behavior, e.g. body language that would indicate deception and uses this in its truth algorithm to determine results.

Okay, so if someone shows these signs they are lying? Well, yes and no. They could be nervous for other reasons, so find out. Ask them why the machine detected this. Truth is between ones brain and one's heart. The person in question could be a great liar, with no guilt, immature, or mentally deficient. Telling a lie then showing a physical response is not guaranteed to happen. To help it happen, you must ask tough and stressful questions. That's why the following people aren't good subjects for polygraphs:

- Children
- Mentally ill
- Psychopaths
- Oneself. You **can't** accurately test yourself

★**You must ask questions that will cause a physical response. This is what the polygraph measures.**

If you ask Irwin: Is the moon made out of cheese? This will not get a physical response because it is silly. But if you ask Bob, a macho heterosexual man: Have you ever found another man attractive? You probably will get a physical response. Or, have you every wished someone dead? You must ask tough questions to get a physical response.

You can't test yourself. You need to surprise the Subject, and must garner a physical response for the machine to detect.

You can't test a group of people all at once. You need to test one person at a time in an isolated environment.

You need a quiet private area to test. Free from distractions that can skew the data. Mary was busy looking around at all the activity and stimuli, instead of concentrating on the exam.

★ **The Subject must believe the polygraph machine will detect all deception.** Nothing speaks easier than the truth. Let them know this machine will 100% detect truth and lies. The Subject must believe this. If they are falling all over their story, this is a good hint that they are lying.

Interrogate and observe

Use the polygraph as an interrogation device. Tell the Subject this machine will detect all lies flawlessly and consistently. While observing the Subject if you notice inconsistency, or physical response (rapid blinking, shaky leg, dry mouth, etc) then get more information about the case from them. Ask the Subject more questions about their responses. Try to get a confession of guilt or admittance of guilty behavior. To do this:

- Tell them the machine has detected deception on this question. Can you elaborate on this? Ask more tough questions on their responses.
- Interrogate them to find inconsistencies, tell the Subject this is inconsistent to elaborate more.

A Confession, an ideal outcome

It's surprisingly common for a Subject to see the polygraph machine, hooked up and running and immediately confess. Fear of being hooked up to a truth machine! All professional examiners have their stories of people getting so frightened at the mere sight of the machine—wires, screen, lines, activity and not being able to take the *pressure* and just coming out and confessing to relieve the *pressure* they are feeling.

A customer of the *USB Polygraph* let us know his story. Sam believed his roommate was stealing money from his wallet when he took a shower. He apparently noticed money missing after showering on more than one occasion and the only other person in the apartment was his roommate Ron. He confronted Ron, after the second occurrence he noticed (there were probably more), and Ron responded "I didn't

take your money, dude, I will take a lie detector test." Okay, Sam thought, and he bought the *USB Polygraph*, set it up, planning on doing the full test, practiced using it, and had it running ready for Ron when he entered the apartment right after his shift. Sam, said I have the polygraph machine. Ron caught off guard, coming through the door, stressed, couldn't take the heat, and immediately confessed. Sam didn't even have to run through the questions. Justice served.

A book by a retired polygraph examiner basically consists of stories like this. A first glance, this is odd, a book on his life's work, administering polygraphs, with stories of immediate confessions? People confessed because they were mortified to be hooked up to a polygraph! In his exam introduction, the Author-Examiner would talk to them how this test is 100% accurate and impossible to beat—"They must believe it's the real deal, and I'm going to get out every lie you have ever told and then make a big reveal with the machine" and the guilty will confess. This illustrates the emphasis on the confession or even great stumbling with the truth in their responses.

Confront the Subject

If the Subject doesn't make an immediate confession then take the polygraph exam. They still might confess during the exam. Observe the Subject during the test closely for signs of deception.

If they start to crack, just wait for it. Question slowly. The *slow burn*.

Call them out on tough questions. Have them elaborate, and explain. Find inconsistencies, call them out. Question the inconsistencies. Ask why they are being deceptive. Are their responses legitimate? Or clearly illustrating guilt? You must decide.

Repeat the tough questions to catch them off guard.

Tell them the machine has detected deception (yes lie, even if it does not), can you elaborate?

Get the confession.

If all this doesn't work, go through the test results with them. Tell them where the machine detected deception, and ask them to explain it. If the machine did not detect enough deception on specific questions, but you believe they were acting deceptively then lie to them and say the machine detected something. Can you explain it? Is there explanation consistent and does it make sense? If not, query them more about the inconsistencies. Try to make your own conclusion based on the information you have collected.

If the machine exonerates them, and they successfully passed the polygraph, they of course, still maybe hiding the true story. If you don't believe the Subject, go back through the test, while they are still hooked up and re-ask questions, push for more details.

Not every guilty person will: confess, illicit a measurable physical response, or even feel guilt. And a good liar, by definition, will tell a convincing tale. That's why it's important to ask tough questions, convince them they will be outed for deception, and the machine will get the truth.

Examiner Behavior

The person seeking the truth, and testing the Subject is the Examiner.

- Tell them this machine will detect all deception. Be serious, that this is without question.
- Be very professional. The examiner must appear knowledgeable and competent to the Subject
- Face computer screens away from Subject
- Ask questions which will cause a physical response
- Observe deceptive physical behavior
- Don't rush, if anything, go slowly
- Get a confession
- Probe for more information on event
- Find inconsistencies, and question Subject on them

Polygraph Subjects

The person taking the polygraph exam is the Subject.

- Must be a willing subject. Cannot be forced to take test against their will. It won't work.
- Mentally sane
- Not young children
- You cannot polygraph someone in a group. Must be one on one.
- You cannot polygraph yourself.

Exam Area

- Polygraph machine practiced on, installed, ready to use by the Examiner with confidence
- Quiet room
- Room free of distractions
- Computer screen facing *away* from Subject
- Professional acting Examiner

Exam Questions

- Ask questions that can potentially cause a physical response (a tough question)
- Roll the tough questions. Ask an easy questions then tough question #1, two more easy, and back to tough question #1, as an example. Repeat that question to catch the Subject off guard.
- Ask boolean questions. These are questions with a Yes or No response. You can always dig deeper in the responses by asking to elaborate after.
- Asking Barb- "Are you a tomato?" Won't work on a polygraph. It's a silly question and won't generate a physical response.

End of Exam

Strategically decide if you want to tell the Subject whether the machine detected deception or truth in their responses. The go to response, if you don't believe them, is to say the machine detected *something*, please explain.

If the Exam shows deception, and you feel they were being deceptive then you can draw some conclusions. If you feel they were telling the truth, and the machine tells you the opposite you may want to explore more. Ask them: Why did the machine detect deception on this question? Is their response reasonable?

Joanie was told by her best friend, Shayna, that her fiancée, Brett, was at TGIFridays on Thursday night and was seen kissing another woman. Joanie ran the polygraph exam on Brett. She asked him "Was he at TGIF on Thursday?" He replied, no. The machine showed deception. She asked, "Did you kiss a woman at the TGIF on Thursday? Shayna told me she saw you." He replied, no. Machine shows truth. Joanie tells him during the exam the machine is saying that you're lying about being at the TGIF—"Explain yourself." After ten minutes of him explaining, he finally admits, that indeed, he actually was there. But he adds, "I didn't kiss anyone, no way." Brett walks off angrily and ends the exam. What conclusions can be drawn in this situation? The machine detected deception. Brett finally came clean on being at the bar. But, denies kissing another woman. What can be gleaned here is: Brett *was* at the bar on Thursday. It wasn't a lookalike at the bar, it was him, and Shayna reported that accurately (truthfully). But he initially lied about being there. Why? Because he did kiss another woman? Or due to another reason (he's an alcoholic and isn't supposed to be at a bar, as an example). Is there is a reasonable explanation for hiding the fact he was there? We don't know Brett like Joanie, but it seems unlikely. Weeks later the truth came out: Brett didn't kiss anyone (that is what he said). But he was kissed. Shayna, wasn't a real friend, and she kissed Brett that day. Brett found a technicality in the question wording. He was the kissed and not the kisser.

★**Ask multiple questions about the guilty action to reduce the chance of ambiguity or technicality.**

Open Interrogation Mode

In this mode of the software you can ask whatever you like, and can utilize the roll technique. Police often use this method. Observe the readings on the screen, observe body language, get the answers or explanations.

Exam Wizard

Automatically generates control and baseline questions. And you add questions based on the event you want tested. Some examples, “did you steal the money?”, “did you cheat on Kristin?”, “did you leave the house last night?”, or “did you kiss Phil?”

Tips

Get the confession. Unravel their story, find holes, be alert, notice bad body language, question them, tell them the lie detector has "detected something"—have them fully explain. Compare your prediction, with the data. Note non-verbal behavior, ticks, facial micro expressions, blinking, leg shaking, and other bad body language.

Tell them the device detected something on the meaty question, have them explain it, look for holes in story. Remember, it is the unexpressed intention of the liar to mislead[10]

Conclusion

Follow on screen directions. Use the Help button when needed. Congratulations, you now know as much as most Polygraph examiners and can execute a proper exam.

[10] Paul V. Trovillo, History of Lie Detection, 29 Am. Inst. Crim. L. & Criminology 848 (1938-1939)