

Experiment HP-8: The Galvanic Skin Response (GSR) and Investigation into ‘Cheating’ - Instructor’s Guide

This iWorx lab experiment was graciously provided by Dr. Paul Wagner and Dr. Tracy Wagner, Asst. Professors, Washburn University, Topeka, KS.

PERTINENT INFORMATION FOR INSTRUCTORS

1. Read all instructions carefully before proceeding with this experiment. There are items that need to be organized before this lab begins.
2. Exercise 2 - Orienting to Photographs: each of the envelopes (for each group) should contain 10 pictures in total. These should show photos where some are scary, some with the color red, others blue, politicians, etc... which may provoke a response.
 - This activity is used to get acquainted with the set-up, and to identify those individuals who are good responders.
 - The good responders will be used as the Suspects (I and II) in the “Who-Done-It” game in Exercise 3.
3. Have the instructions for the Principal Investigators, Subject I and Subject II ready to be handed to the individuals during Exercise 3.
4. During Exercise 3 the two Suspects will take their envelopes and leave the room to read them.

Note: It is important that the Suspects read their letters out of sight of each other.

5. The Principal Investigators (PIs) should read their letter and begin the process of devising questions while the Suspects are out of the room.
6. Once the questions are ready to be asked the PIs can begin the interrogation of each of the Suspects individually.
7. As you read the Suspect II information on page 4, you will notice that they must go some place and retrieve another envelope. In that envelope is a hand written letter from another student letting them know what the answers are to the quiz. We have found that just handling this envelope is sufficient to produce a response on the GSR.
8. As an addition to this lab - it is suggested that for the students to take the “game” seriously:
 - Tell the PIs that the suspect they choose will take the quiz for them and however that student performs on the quiz will be the grade their entire group will get for that quiz.
 - Once the group of PIs choose the Suspect they think is the “cheater” - ask that individual to take the quiz without looking at the questions.
 - If the chosen Suspect is actually the “cheater”, then he or she will already know the answers.
 - Design the quiz so that the answers are either all "a" and/or all "true".

Instructions for the Principal Investigators

***Note:** These instructions should be placed in a separate envelope marked Principal Investigators. No one else but the instructor should have access to this information prior to the lab experiment.*

***Note:** This information will be given to the Investigators after Exercise 2 is completed.*

By now, we are sure you have heard that someone has been breaking into offices in the Biology department.

Last week, your instructors met to discuss the up coming quiz for the GSR lab and the grades for the laboratory. It was noticed that the quiz grades for a number of you are a bit higher than usual.

We passed this information onto the Dean of Students who then requested a meeting with the Biology department faculty. The Dean of Students, the Vice President of Academic Affairs and campus police met with the faculty of the Biology department.

They reported that they have been investigating a cheating ring on campus. Individuals steal the answers to quizzes and exams and then sell them to members of this cheating ring who distribute them to fellow students, sororities and fraternities for a fee.

They also told the faculty that evidence taken from your Professors' offices matches that from members of the suspected cheating ring.

Your instructors suspect that something is wrong and that the cheating ring may have something to do with the change in scores.

So, your mission, if you choose to accept it, is to try and catch those who are using the stolen answers.

We are sure that certain members of the class know the answers to the exit quiz today. It is your job to find out who these people are!

However, there is a catch! The person that you think is the "cheater" in your group will take the exit quiz for your lab group. The grade that this person gets will be the grade that your lab group will receive for that quiz. So, the better you do your job the better your grade will be!

It will be helpful if you read the lab manual before starting. The toughest part of polygraph work is the design of the questions.

Start your questioning with some simple yes or no neutral questions like:

- Is your name Sarah Smith?
- Is the year 2010?
- Do you drive to school?
- Are you a Biology major?

In between these neutral questions sprinkle in some emotional questions like:

- Do you like Physiology?
- Do you have a significant other?
- Have you ever been intoxicated?

Hopefully, after 10 or 12 questions you will have a good sense of how the person responds to an emotional question. Hopefully, the emotional responses should be similar to a response of someone who is lying.

With this knowledge of how they respond, ask your suspect to answer "No" to all of the following questions regardless of the truth of the answer. Be clever and sprinkle in neutral questions amongst the questions you think will help you determine who might be trying to cheat.

Below are a few examples of questions you might try:

- Are you in a sorority?
- Do you know someone who cheats?
- Are you a female?
- Do you know the answers to the quiz today?

GOOD LUCK!

Instructions for Suspect I

***Note:** These instructions should be placed in a separate envelope marked Subject I. No one else but the instructor should have access to this information prior to the lab experiment.*

***Note:** This information will be given to Subject I after Exercise 2 is completed.*

As you might have heard, someone has been breaking into offices in the Biology department. Last week, your instructors met to discuss the up coming quiz for the GSR lab and the grades for the laboratory.

It was noticed that the quiz grades for a number of you are a bit higher than usual. So, we passed this information onto the Dean of Students who then requested a meeting with the Biology department faculty.

The Dean of Students, the Vice President of Academic Affairs and campus police met with the faculty of the Biology department. They reported that they have been investigating a cheating ring on campus. Individuals steal the answers to quizzes and exams and then sell them to members of this cheating ring who then distribute them to fellow students, sororities and fraternities for a fee. They also told the faculty that evidence taken from your Professors' offices matches that from members of the suspected cheating ring.

Your instructors suspect that something is wrong and that the cheating ring may have something to do with the change in the quiz and exam scores.

We are sure that certain members of the class know the answers to the exit quiz today. Unfortunately, you have been identified as one of the possible students who have access to the questions.

Since it is obvious that you are not one of those students, taking the polygraph test should pose no problem.

You just have to follow the instructions of the investigators. Just stay calm and you should be all right. Lawyers are standing by just in case you are falsely accused!

Do not discuss the contents of this letter with anyone!!

While you are waiting to be brought in for questioning, study for the quiz or just relax in the hallway. You will be called in for questioning shortly.

You are not supposed to have contact with any other suspects.

Instructions for Suspect II

***Note:** These instructions should be placed in a separate envelope marked Subject II. No one else but the instructor should have access to this information prior to the lab experiment*

***Note:** This information will be given to Subject II after Exercise 2 is completed.*

DO NOT show or discuss the content of this letter with anyone! Read it to yourself and put it back into the envelope.

Do not act suspicious, but take a walk, go to the bathroom, get a drink of water but find your way to your Professor's Office.

There, taped to the door, you will find a sealed envelope marked with the title Physiology Lab. Take out the contents, read it carefully and place it back in the envelope. Make certain to reseal the envelope and then retape it to the door.

Now go back to lab and wait outside to be called in for questioning. You need to be present outside the lab room so you can participate in the questioning - so don't take too long.

Remember do not tell anyone- this is just between us!