Test plan for 21/12/2023

# Introduction

## Goal of the test

The goal of the test is to see whether the game is educational enough. It is considered educational enough if the students can recognize red flags afterwards and explain what phishing is to another person.

The game will be a success if the players can explain what the game is about (phishing/social engineering), give an explanation of what it is and ways you can recognize them.

During this test, context information is displayed on the phone. It should encourage a more hectic flip-flop feeling. Try to find out if this is the case.

# Test instructions

The test should be run as follows:

Allow the student to play the game by themselves. There are some portions of the game where external dialogue is required, such as the following cases:

1. At the start, provide some context on the story:   
     
   You are a worker in a fictional company called Muisbakkers B.V. It is a company that makes cakes; it has the best bakers from all over the world and the company is huge. Your job in the company is one of administrator. You are the one that has to communicate with clients, through mail. You must do this throughout the day.

Lately, a group of hackers has started new endeavors. They hate the current state of the economy; large corporations seem to have all the power. They are releasing waves of targeted phishing mails and social engineering, trying to cause chaos in these corporations.

(dutch translation:)

Je werkt in een bedrijf genaamd Muisbakkers B.V. Het is een bedrijf dat de beste bakkers ter wereld heeft verzameld. Het is onderhand een groot bedrijf geworden en het verdient veel geld.

Het is zometeen jouw taak om mails te beantwoorden van potentiële cliënten en je persoonlijke mail af te handelen. Je hebt 5 minuten, en dan is de dag voorbij. Je merkt wanneer dit zo is.

Je hebt op het nieuws gezien dat er een nieuwe hackergroep is. Ze zijn niet blij met de huidige staat van de economie en hoe grote bedrijven alle macht in handen hebben. Ze zijn bezig met doelgerichte aanvallen te sturen op deze bedrijven, om zo chaos te veroorzaken.

1. Explain they can click on objects in the office to focus on them once they start the game.
2. If they get a warning from the boss, notify them of it and tell them to delete the mail afterward.
3. For the report menu; the tutorial teaches you about this, but if they still fail to use it or misremember, you may explain how to use it. The same goes for any tutorial mail that they forgot about.

Otherwise, don’t give outside help unless absolutely necessary.

When the game is over, ask the following questions and follow up questions in private.

Questions:

1. What would you say this game teaches you about?
   1. What did you learn about this subject?
   2. Can you give an explanation of it?
2. You’ve seen that mails can be faulty. What are some of the things that could be wrong with a mail, that would suggest it is?
   1. What would you do if you saw a suspicious mail like this?
3. Did you have to switch to the phone a lot?
   1. What did you think of this?
4. How would you see this game being used in the lessons?

# Results

Test 1 notes:

1 phishing, some mails can be phishing

.exe file, odd e-mail, look at details

Not click on it

Did not know where it was

It does teach, doesn’t act as a control

Game is too fast with mails

Test 2: Thijs

Teach what is real or not

Can see from suspicious parts

Does recall some of the red flags

Did not use/see contact list

Put on big screen, vote on if it’s real or not

Start slow in level 1, but then it can go to the level that it is now.

Test 3:

Testee doesn’t get feedback on delete

Preventing you from wrongly handling a phishing mail

Look at all parts of the mail

.exe file, strange text in the body and subject,

Did not use the contact, thinks they could use it for the right mail addresses

When talking about security, training people to look at red flags

Test 4

To teach people to respond to phishing mails

Taalgebruik, links, etc.

Tutorial separate

Would probably be more aware

Didn’t see contacts

Doesn’t see it being used in lessons because students don’t get that many mails

# Conclusion

From the results and observations, I have gathered the following:

* The testees were able to explain phishing after I put them through the test. Although prior knowledge may be a factor, they told me they are more aware of the potential dangers of phishing mails, which was the point of the game.
* Testees still had some trouble with the feedback. The warning mail from the boss does not stand out enough and the players did not always know what do do with it. Potentially, a different way of giving this feedback is required.
* Testees understood the color scheme of reporting a mail.
* The tutorial I added was completed well and taught the players how to play the game, but only if they managed to complete it in time. Otherwise, they would go straight onto the next mails that came in.
* There are still some bugs, one with the recoloring of selected red flags, and one where you could cancel the lock screen by clicking on one of the buttons.
* The contacts option was not visible at all. I should include this better in the tutorial.
* The players need more time to read the mails, at least at the start.
* The game needs to have some way of telling the story.

All in all, there is still some finishing work to be done, but the game seems like it will be a good way to teach people about cyber security awareness.