**ECPI University Rafat Khandaker 09/15/18**

Unit 3 Guided Practice 2: Problem Solving

**Explanation:**

In my current approach to the scenarios, I use a mixture of many troubleshooting models that will boil down to the root cause of the problem. My reasoning may be different for each user case scenario. A particular discussion mentioned in the technical skills video **(3)**, business require professionals with a versatile skill level to resolve issues surrounding everyday problems. In regards to this video, one must understand the level of expertise they have in each field of study & technology in general. Other than that, it helps to use the fundamental **8 discipline model** **(1)** to resolve issues within a team management setting. Often time Help desk may not know how to resolve an issue but they know how to gain more information into the situation to escalate a ticket to the appropriate department.

Personally, in my skillset, I am a software engineer with 2 years of experience. I have developed for a variety of technologies and I have also, been in the IT department: IT technical & consulting field for about 4 years. Currently, I am working in a media company that require understanding of media & entertainment technologies.

With my current experience model, I am quite an expert in my field & I usually use the **5 whys approach** to probe my users to the exact cause of the technical issue. In ***Scenario 1***, for example, I will boil down the main reasons why I asked the questions for the user case scenario & describe my experience with computer technology.

**Scenario 1:**

**“My PC is frozen. I do not know what I did wrong. The display is locked. Nothing I try does any good. I press keys on the keyboard, and nothing happens. The mouse pointer will not move either.”**

*Open-Ended*

1. Okay, is this the first time this situation has happened? Can you explain?

***Why? This question is asked to probe the user to consider if the current problem is caused by a new change or is has been an existing issue.***

1. What were you doing right before this situation occurred?

***Why? This question is to prompt the user to describe the last triggering factor that caused the issue being described.***

1. Did you notice any other issues with your computer before this happened?

***Why? This question is to prompt the user if there were any other possible triggers to the current situation.***

1. Can you describe to me what you see on your screen?

***Why? This is to probe the current device to see if the failure is caused by a possible process (thread deadlocks) or a graphics-card failure. If the user is able to see graphics or icons on the display, we can start determining that the cause is by overloading a (process or memory) or major component failure in the computer system, such as OS – operating system.***

1. Is there anyone else, near you that is having a similar issue?

***Why? This will probe the user to determine if the current problem require escalation & potential cause of a virus. In this situation the computer system has to be isolated from the network for investigation.***

***From experience, the “Wanna-Cry” incident affected some members of my company in Comcast. So, in this situation, treating a single user-case scenario would be pointless if an escalation is not made.***

*Closed-Ended*

1. Do you hear any heavy background noise coming from your computer, like fan working harder than usual?

***Why? This question is asked to determine if the computer system is displaying symptoms of cpu: over-clocking (incase the problem is caused by a process or deadlock), the system will increase the fan speed in relation to the cpu-utilization & overheating.***

1. Do you see any lights flickering from your cd or storage lights on your computer?

***Why? Flickering lights near the cd & storage lights is a symptom of “disk-thrashing,” disk thrashing is an event when the computer system has over loaded the ram-memory & is using the hard-drive storage to swap memory space. This will have an effect on performance & can slow down the system.***

1. Do you hear noise from network traffic, like static coming from your network cables?

***Why? Static from network cables will determine if the current situation: process or thread is in relation to a network-related incident. In a case of “Network: D-Dosing,” A computer process can be over-loaded when attempting to process & large network request.***

1. Do you see any lights flickering, coming from your network interface card?

***Why? Also, in relation to network traffic – over use, the NIC card will also flicker yellow light when traffic is being processed through the NIC card & many frames are being discarded or dropped.***

1. Have you made any changes lately or installed any new software?

***Why? This question is asked to determine if anything new has changed in the computer system since the last time it has functioned properly.***

**References**

**(1)** Mills, F. (2017). [Problem Solving (Links to an external site.)Links to an external site.](https://www.lynda.com/IT-Infrastructure-tutorials/Problem-solving/599614/671195-4.html?autoplay=true) (3m4s).

**(2)** Mills, F. (2017). [Troubleshooting (Links to an external site.)Links to an external site.](https://www.lynda.com/IT-Infrastructure-tutorials/Troubleshooting-Diagnosing-errors-incidents-problems/599614/671196-4.html?autoplay=true) (3m4s).

**(3)** Mills, F. (2017). [Technical skills (Links to an external site.)Links to an external site.](https://www.lynda.com/IT-Infrastructure-tutorials/Technical-skills-Hardware-software-beyond/599614/671198-4.html?autoplay=true) (3m4s).

**(4)** Kaizen.(2018). Vorne Industries. Retrieved from: <https://www.leanproduction.com/kaizen.html>