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M3 Ch13 Beyond the Book - Troubleshooting Scenario I

Question 1

The user notes that there are no lights on the computer or the monitor, which typically display a blue "ON" light on the PC and a small green light on the monitor's bottom right corner. This lack of lights indicates a power-related problem. By attentively gathering information about the symptoms, I can begin the troubleshooting process by pinpointing the exact nature of the issue, which revolves around the workstation's lack of power and unresponsiveness.

Question 2

There are three possible theories of probable causes based on the information provided:

1. Power Supply Issue: One likely hypothesis is that the workstation might be experiencing a power supply problem. The absence of any lights on both the computer and the monitor suggests that power is not reaching the components. This could be due to a faulty power cable, a malfunctioning power outlet, or even a defective power supply unit within the computer itself.

2. Connections: Another possible hypothesis is that there might be loose or disconnected cables. It's possible that a power cable or other essential connections between the computer and the monitor are not securely attached. This could be a simple fix involving reseating cables to ensure proper connections.

3. Fuse or Circuit Breaker Issue: A third hypothesis could involve issues with the building's electrical system. There might have been a tripped circuit breaker or a blown fuse in the user's office, which could be preventing power from reaching the workstation. This could be checked by verifying other devices on the same electrical outlet and circuit.

Question 3

1. Power Supply Issue:

To test whether the power supply is the actual cause of the problem, I would take the following steps:

- Check if the power cable is securely plugged into both the computer and the power outlet. If it's connected, I would try using a different power cable to rule out any cable-related issues.
- Test the power outlet by plugging in another device to ensure that it's providing power.
- If possible, try plugging the workstation into a different power outlet to see if it powers on. This will help determine if the issue is specific to the outlet.

2. Loose Connections:

To test the hypothesis of loose connections, I would use the following steps:

- Carefully examine all cables connected to the workstation, including the power cable and any video cables connected to the monitor.
- Gently reseat all cables to ensure they are securely connected to their respective ports. Sometimes, cables can become loose over time, causing a loss of connectivity.
- If the issue persists, try using different cables, especially if any of the cables appear damaged or frayed.

Question 4

1. Reassess the Situation:

- Begin by asking the user to provide more details about what happened after the initial problem was resolved.
- Confirm whether the circuit breaker was indeed reset, and inquire about any other changes or events that occurred between the resolution and the recurrence of the issue.

2. Check for Changes:

- Verify if there have been any changes in the user's environment or setup since the initial fix. This could include anything from plugging in additional devices to rearranging cables.

3. Inspect Hardware:

- Recheck all hardware connections, including power cables, video cables, and any peripherals.
- Ensure that the circuit breaker is still in the correct position and that there are no issues with the power strip or outlet.

4. Rule Out External Factors:

- Inquire about any power fluctuations or outages in the building or surrounding area. Sometimes, external factors beyond the user's control can cause such issues.

5. Consider Environmental Factors:

- If the workstation is in an area prone to overheating, ensure that it is properly ventilated and not overheating, as this can cause sudden shutdowns.

6. Test Components:

- If no clear cause is identified, consider testing individual components such as the power supply unit, monitor, and power strip by using known working alternatives.

Question 5

In hindsight, during the "Identify the problem" and "Establish a theory of probable cause" steps, there could have been more probing questions and checks to prevent the recurrence of the issue caused by the space heater. Specifically:

1. Identify the Problem:

- When inquiring about what "does not work" means, I could have explicitly asked if there were any recent changes in the user's setup or if any new devices were added to the workstation. This might have revealed the presence of the space heater.

2. Establish a Theory of Probable Cause:

- While considering probable causes, I could have asked the user about any new devices or appliances connected to the same power source as the workstation. This might have led to the discovery of the space heater and its potential impact on the circuit.

Question 6

Issue Summary:

A user from the Accounting Department reported a workstation issue where the computer failed to power on, impacting their ability to send an important report by a tight deadline. The initial investigation revealed no lights on the monitor or computer, contrary to the usual blue "ON" light on the computer and a green light on the monitor. Immediate assistance was required to resolve the problem.

Troubleshooting Steps and Solution:

1. Identified Problem: Received a help desk call from the user describing a non-functioning workstation with specific details about the lights.

2. Established Theory of Probable Cause: Considering the user's description, possible causes were identified, including power-related issues, monitor or hardware malfunction, or connection problems.

3. Tested Probable Cause Theory: Checked power source, cables, and monitor connections, which seemed fine. Attempted a power reset by unplugging the workstation, waiting, and then plugging it back in, but the issue persisted.

4. Action Plan and Execution: Discovered that the circuit breaker on the power strip under the user's desk had tripped. Reset the circuit breaker, and the workstation powered on successfully. The user was able to send the report to their superior.

5. Verified Full System Functionality: Ensured that the workstation was operational and that the user's immediate need was addressed. No further issues were reported at that time.

Summary Note (to be added to the company cookbook):
Resolved workstation power issue for Accounting user. Initial analysis indicated no lights on the computer and monitor, preventing crucial report submission. Conducted troubleshooting steps, identifying a tripped circuit breaker on the user's power strip. Resetting the circuit breaker successfully powered the workstation. The user was able to send the report on time. Recommending regular checks for power-related concerns to avoid similar incidents in the future.