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ISLT 9458

Performance Assessment

Subject Area: Using Different Operating Systems

Content: This area covers the basics of Operating Systems, including what they are, and the common examples. It also covers some of the universals of using different operating systems.

Performance Task: Given an unfamiliar operating system (e.g. Linux), students will be able to locate some of the basic applications, including a web browser, which they will use to send the instructor an email.

Reflection

Students, especially those unfamiliar with technology, have a hard time adjusting to computers while conducting self-directed exploration and experimentation. One of the themes in my class is that it's okay to experiment on the computer. Students should not fear the computer, but learn to control it. With each topic, I make sure to give them some areas where they can experiment on their own in order to gain familiarity and confidence. This task will be assessing these skills through their use of an unfamiliar operating system.

Cognitive Processes and Social Skills

Students will need to utilize their knowledge not only of operating systems, but also web browsers and email to come up with a strategy for navigating a new and unknown environment. They will need to demonstrate goal directed thinking through actions aimed at accomplishing their goals. Finally, they will demonstrate appropriate social skills in the composition of their email to the instructor.

Reflection

It will come near the end of the semester, after they've had all the supporting topics required. In order to successfully complete this task, they will need to use skills from many different topic areas they've previously covered. They should be able to use this information in an unfamiliar environment to come up with a strategy that will enable them to complete their task.

Task Directions

Initial Conditions

Students will be seated in front of a computer running an operating system unfamiliar to them. It could be OS X, Linux, BSD, SkyOS, or a few others. The task will be completed in the same general way for all of these Operating Systems.

Student Directions

1. Explore the operating system to locate the following:
 - a. An office application
 - b. A web browser
2. Use the web browser to navigate to the web interface for your email account
3. Send an email to the professor notifying him of your success and any of your discoveries and difficulties in accomplishing the task.

Reflection

These directions are simple while representing the most common tasks conducted by users on computers. This task represents a scenario that is completely realistic for the students to face at some point. The task requires them to demonstrate proficiency in a number of different areas. There are multiple ways in which this task can be accomplished. Most importantly, this task should help students gain the confidence they need to face similar scenarios outside of the classroom.

Scoring

Checklist for Social Skills

___ Sent Email to Professor

___ Email was devoid of spelling and grammar issues

Points: ____

Rating Scales for Cognitive Processes

Locating Application Listing

3 – Was able to strategically probe operating system by clicking on obvious cues in order to locate a list of applications

2 – Demonstrated no strategy in searching for applications, but was able to eventually locate them

1 – Shows no understanding of being able to operate in a new operating system environment

Locate Office Application / Web Browser

3 – Was able to skim application names to find an entry of common Office applications (KOffice, OpenOffice.org) and Web Browsers

2 – Did not know the names of the application, but conducted a reasonable search through the list in order to locate them

1 – Shows no understanding of the concepts required to complete this task.

Reflection

Rubric creation is one of my weak points, and I fear the above is a perfect example of this. I spent some time trying to think of different ways to assess the task, and this seems the best, but it bothers me that I'm only really assessing observable behavior. In order to really understand, an ongoing conversation would be required with the student as they are conducting the test itself. I considered making that part of the task (verbalizing their thought process as they go), but decided against it because the distraction it can cause to the learner and others. That may have been a mistake.

Implementation Considerations

This task would need to be conducted either in a one on one basis, or in a computer lab. The operating systems in question would need to be loaded onto the computers, and the easiest way to do this would be through the use of "Live CD's" which run the operating system off of a CD without loading anything onto the computer hard drive. This would need to be tested ahead of time to insure that user interface would not be too exotic to the point that the strategies taught wouldn't work. Additionally, hardware compatibility would need to be tested to insure network connectivity for sending the email.

Reflection

While this Performance assessment is something I've been thinking about for quite some time, it's not something I've actually built until this point. While I think it would be a very valuable learning experience for my students, it's not something that we had the time to complete this semester, so I will have to consider it for future classes.

Since I teach in a computer lab and am familiar with many different operating systems that the average person is not, these considerations are not a huge problem in my case.