Network Scripts

Teacher: Kuri DiFede
Subject: Operating Systems

Learning Goals:

- Students will understand the concept of scripting by reading the assigned work and extrapolating the key ideas.
- The students will apply their knowledge of command line functions and scripts by creating them and performing the experiment.
- Students will create their own scripts by synthesising the information from past lessons and constructing their scripts in Google Docs.

Assessment:
Students are completing multiple assignments and will be assessed in a variety of ways.

In the experiment, students are primarily assessed through observation, as well as their written responses to the questions in the Google Doc. As I observe during class, I can see which students are struggling, and which are moving through the assignment with ease. I will use that information in class to help students who are struggling and to push students who are drifting off task. After class I will review the Google Doc to see if there were any misconceptions in the lesson that I missed through observation. I will use these to help guide the class next period.

For the reading, students are primarily assessed through ActivelyLearn.
Students are reading the text and filling out a few questions as they go. I usually try to start this assessment in class, as I find that often students' first response is not clear enough or is pulling the wrong information. I am able to let them know to go back and retry, so that they can revise their answer in class while the items are fresh in their mind. This allows them to leave class with a solid foundation of the knowledge.

Finally students will need to synthesize the information from the last few experiments into a script which they will first write in a Google Doc. This will allow me to help them correct their mistakes before typing it in directly on the computer. The scripts will be typed into the computer next class and run. Students who struggle to write the scripts in the Google Doc. Will receive extra assistance, while those who have written correct scripts will be able to move forward and copy them onto the PE computers.

CCSS Standards:
ELA-L.RST.11-12.3: Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

ELA-L..RST.11-12.9: Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

Prerequisite Skills / Links to Past Learning:
The students will need to understand the workflow for this project, which includes entering commands into the command prompt as well as accessing the resources on activelylearn and the Google Drive. It is important that they have the familiarity and background knowledge of the command line and basic network commands so that they can comprehend the reading. Additionally, the synthesis assignment will require them to recall command line tasks from previous assignments.

Materials, Resources, and Technology:
- Windows PE computers
- Laptops or IPads
- Google Drive resources
- ActivelyLearn Resources

Instructional Procedures:
- 5 mins - Introduction
    - Introduce the topic for today
    - Show students the expected tasks and explain each one
- 25 min (approx) Station 1
    - Students will go to one of two stations to complete their work.
    - Experiment: students at the experiment station will gather around a Windows PE computers in small groups. They will retrieve the instructions from Google Docs and complete the experiment. This experiment will have students using the command line and notepad to do the following:
        - Create a new script
        - Edit an existing script
        - Create a second script
        - Create a script that calls other scripts
    - Reading: in the reading station students will work independently to read the assigned reading in Actively Learn and complete the questions
- 25 min (approx) Station 2
    - See above, students will switch stations
- 25 min (approx)
    - Students will work on an independent assignment which will require them to write a script using their past assignments.
- 5 mins wrap up, clean up classroom

If students finish early:

Since students work at different paces, some will finish early. I try to assess students work that is turned in early to see if there is any major revisions that need to be done. If not, students can do the following tasks.

- Sign up for their Microsoft imagine account and get their product key for Windows
- Work on their website for the business class

Accommodations:

Student work is individualized in this class, and since they are working independently the majority of time, I am able to provide individualized attention and assistance. The class also includes multiple components for learning (experimenting, reading, audio explanation) and to help solidify the understandings of each topic. The class structure allows students to work at their own pace, allowing those who need extra time and providing extension work for those who complete early. Students are also permitted to take short breaks in class, which helps them retain focus. Additionally, some students with no lunch period can even take a short break to eat, as I understand it is difficult to concentrate on an empty stomach.

Next Lesson:

For the next lesson, students will be typing in and running their scripts that they write in class today. This should be empowering for them to see what is possible with the command line. Based on the results from their writing scripts assignment, some groups may need more targeted help before typing in their scripts directly. I will use the assessment from this class to differentiate tomorrow.