## Part 1: Initial Task Analysis

Perform a link analysis of your at-home workspace. If you are working in pairs, pick one at-home workspace to assess. The link analysis can be an adjacency diagram, spatial operational-sequence diagram (SOSD), or a modified spatial operational-sequence diagram.

**A. Workspace (Include a picture of the assessed workspace):**

**B. Task (Identify the task being completed in this workspace.):**

**Task being completed:**

The task being completed in this workspace is the 162 Assignment that you are currently reading.

**Current components:**

| Component | Description |
|---|---|
| **Computer Monitor** | Used to enlarge visuals on the laptop and for split screen functionality to increase efficiency when doing the assignment |
| **Laptop** | Computer used to complete the |

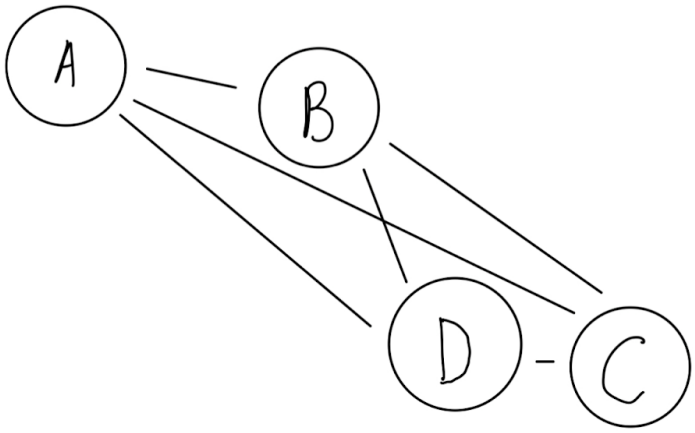
| | |
|---|---|
| | assignment by accessing the web, online resources, and word processor |
| **Keyboard** | Peripheral for typing up the assignment |
| **Mouse** | Peripheral for navigating on the laptop and interacting with sites |

***Note: optimal layout may depend on course, activity (watching lectures, studying, solving technical problems, etc. Therefore, an example task could be: Watching SYDE162 Lectures.***

**C. Link analysis:**

***Method (adjacency diagram, spatial operational-sequence diagram (SOSD), or modified spatial operational-sequence diagram):***

ADJACENCY DIAGRAM - BEFORE




LEGEND:
A: MONITOR
B: LAPTOP
C: MOUSE
D: KEYBOARD

**Potential issues:**

- **Since D and C are at a far distance from A and B, the user must have their neck turned to the left in order to look at the monitors**
- **Since B is at a lower height than A, the user must alternate between looking straight ahead (A) and at a downward angle (B)**
- **Since D is at an angle to C, the user may experience discomfort due to the angle of their wrist when using D**

In terms of formatting your Link analysis, you can (a) do your work directly in this word document, (b) use powerpoint and copy the end result into the word document, (c) do the Link analysis on paper and take a picture and insert that picture into the word document, or (d) use another method that works for you. The important thing is that your work should be legible and clear.

***Note: Make sure you annotate your link analysis by identifying possible issues. Consider your principles of component arrangement and other human factors concepts as appropriate.***

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## Part 2: Redesign

Identify two redesign ideas you want to implement based on the task analysis performed in Part 1. Describe these redesigns and why you think they would improve your at-home workspace. Of the two, which do you think is more important and why?

Redesign #1: Add laptop stand

- This would elevate the laptop to a suitable height where the user can look directly ahead instead of tilting their head and potentially straining their neck

Redesign #2: Move components closer together and change angles

- Move keyboard and mouse to face the laptop, and move the chair along with them
- Angle the monitor more to the left to make it easier on the user's eyes when the user moves closer to the computer

Redesign #2 is more important because it solves 2 of the 3 problems mentioned: wrist pain and awkward neck angles, whereas redesign #1 only solves 1 of the problems. Moving the components closer together would make for a more seamless work environment, increasing their user's overall comfort when working and making the user more productive.

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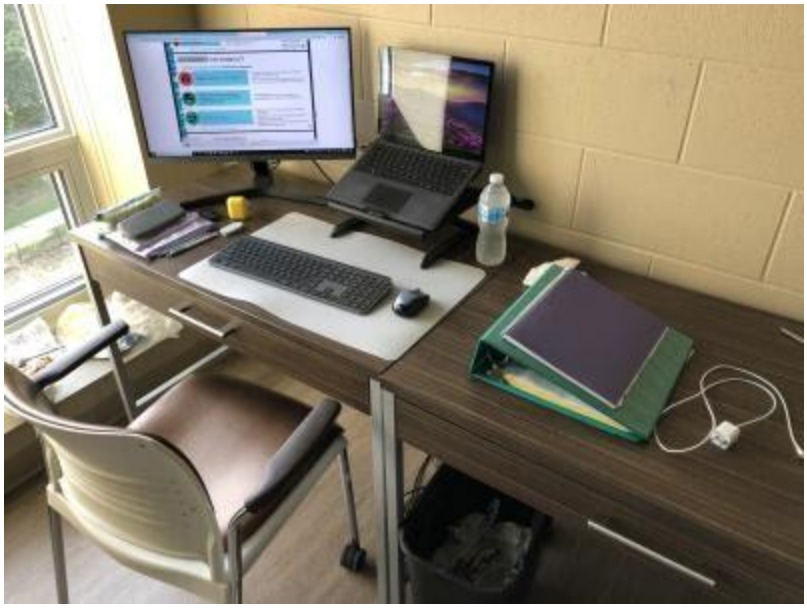
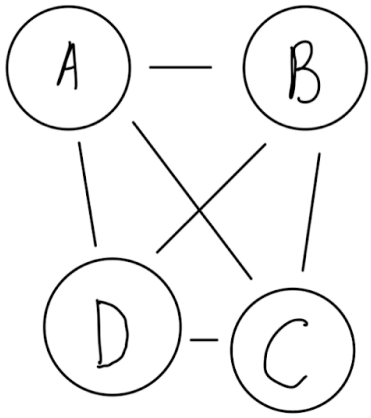
Assume you can implement your redesign ideas. Redo your link analysis from Part 1 with these changes implemented. The method should stay unchanged. If you did an adjacency diagram in Part 1, do an adjacency diagram in Part 2.



ADJACENCY DIAGRAM - AFTER




LEGEND:
A: MONITOR
B: LAPTOP
C: MOUSE
D: KEYBOARD

**Improvements:**

- **Due to the addition of the laptop stand, A and B are both at eye level, limiting strain on the user's neck**
- **Moving D and C directly in front of A and B results in less horizontal head rotation, also minimizing strain on the user's neck**

- **Since D and C are now along the same axis instead of being at an angle to each other, wrist strain is also limited for the user**

***Note: You don't have to rearrange your own at-home workspace to complete Part 2, but you can if you want to.***

In terms of formatting your Link analysis, you can (a) do your work directly in this word document, (b) use powerpoint and copy the end result into the word document, (c) do the Link analysis on paper and take a picture and insert that picture into the word document, or (d) use another method that works for you. The important thing is that your work should be legible and clear.

***Note: Make sure you annotate your link analysis by identifying improvements and remaining and/or new possible issues. Consider your principles of component arrangement and other human factors concepts as appropriate.***