OFFICE WORKSTATION ASSESSMENT – Dartmouth College

Date:	09/01/15
Reviewed by:	Denise Finch, OTD, OTR/L, CHT
Name:	Jeremy Manning
Job Title:	Assistant Professor
Department and Location:	Psychological & Brain Sciences (PBS) Moore Hall, room 349 646-2777

Mr. Manning requested this worksite assessment.

Please note that not all possible problems or solutions may be identified in this report. Additional resources regarding office ergonomics, mouse use, stretching and sit-stand stations are available on the EHS website at: http://www.dartmouth.edu/~ehs/occupational/ergonomics.html.

See equipment suggestions below**.** Refer to report for specifics regarding rationale, location or method, or other suggestions.

Equipment items that EHS can help to locate:	
X	5G500 Humanscale 27" wide single surface keyboard tray with 19" removable wrist rest – Mounting surface depth = 24". EHS will provide information on this item.

Other equipment items/Other Actions:	
X	Try Apple keyboard without number pad
X	Alternative Chair- see report for specific suggestions
X	If considering sit/stand station, see report for specifics and contact Denise Conover in Procurement

BACKGROUND:
- Uncomfortable in chair. Previously used Aeron chair.
- Interested in sit/stand style set up.

Main concern/desired outcome:
- Would like recommendations to improve options for positional changes and increase comfort.

Hand Dominance X - Right Left **Touch type** X - Yes No

Vision X - Glasses X – Distance
*Left eye has poor vision

WORK TASK INFORMATION

☐ **Work hours:** X **-** Full time Part time

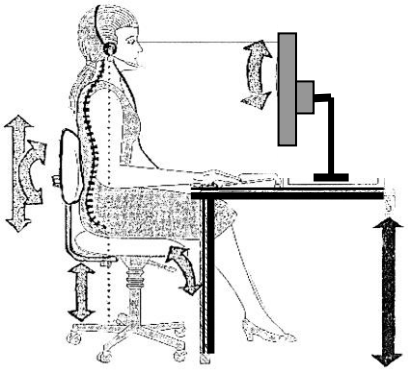
Tasks include:

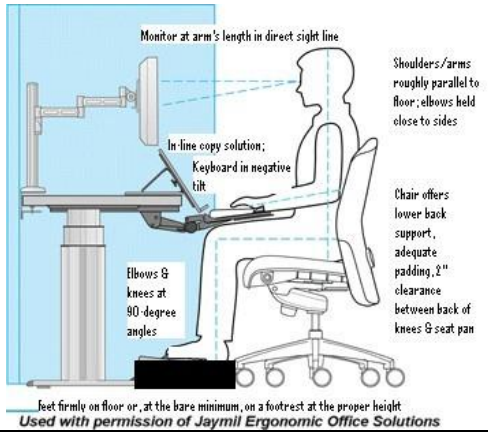
- Mostly in office
- Teaching 2 classes this first year

JOB TASKS – ESTIMATED BY EMPLOYEE				**Hours per day or %/day**
Computer use: • Code • Adobe Illustrator • Email				90+% of work on computer
a. Keyboarding:	70% - Letters	X – Numbers		70% of computer use time
b. Mousing	30% - Right	Left	Alternating	30% of computer use time
Phone:				Uses speakers

Basic Equipment	**Sitting**		**Standing**
	Current	**Suggested Measurement Changes**	**Suggested Measurements**
Chair (floor to top of seat)	20.5”		
Floor to back of knee	20.5”		
Chair arms	Adjustable	Chair arms OK; not in the way	
Footrest	-		
Elbow height	26.5”		44”
Desk height	28 ½”		
Keyboard support height	28.5” - Adjustable	~26”	43 ½”
Home row height	29”		~66”
Eye level	48”		
Screen height	20” - Adjustable		
Screen support height	29”		
Screen height (from floor to top line of screen)	49”	OK	63”
Screen distance			
Other	30” wide screen		

General recommendations for seated ergonomic workstation setup.





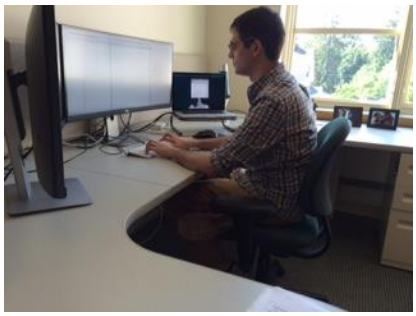
OBSERVATIONS	SUGGESTIONS

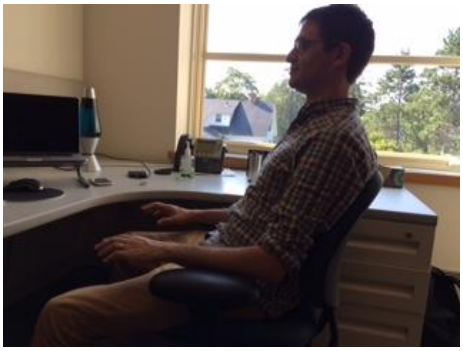
1. Chair/Sitting

Workstation setup
- Keyboard on desktop

Seat height
The chair height is within recommended parameters.

- Mr. Manning notes that the current chair is not comfortable. The seat is too short for his leg length.

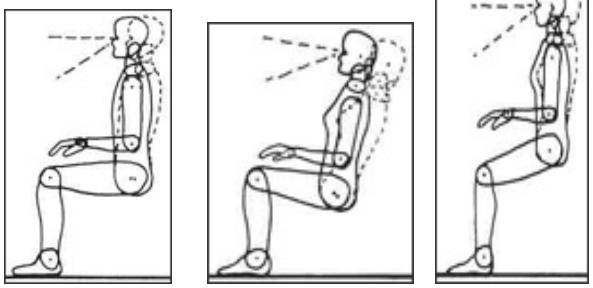




a. When seated, the thighs should be about parallel to the floor. The backrest of the chair should provide lumbar support and have a good fit against the back.

b. The arms should be able to rest comfortably at the sides while working at the desk or computer without interference from the armrests.

c. Change positions frequently while seated.



d. Try task variations such as standing to answer phone call, read or manage paperwork. Walk to printer, walk to co-worker's office or stand to meet with co-workers.

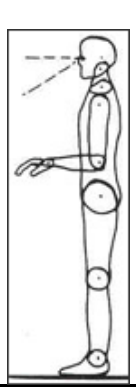
e. Movement helps to increase circulation – even with perfect positioning. Stretch often to improve circulation and decrease static postures.

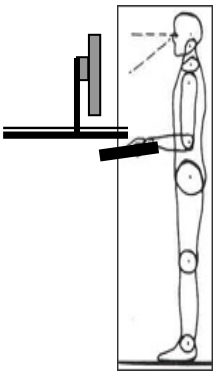
f. To improve the fit and support of the chair, an alternate chair may be helpful. Consider chair features including:
   - Pneumatic height adjustment to at least 21"
   - An adjustable back support including lumbar height adjustment and backrest angle adjustment
   - If armrests are necessary or desired, adjustable armrests that go below elbow height are suggested.
   - A seat slide to increase depth of seat

	Consider chairs such as the Ergocentric ECentric model or other models with similar features. **Please contact Denise Conover in Procurement for chair options.**

If a sit/stand workstation is needed or desired, consider sit/stand stations that can:

- Position the keyboard at elbow height ***while sitting or standing.***
- Position top line of screen at eye level or slightly below ***while sitting or standing.***
- Accept a keyboard tray (may be needed to accommodate adjustment needs for the arms/wrists)
- Be adjusted without any lifting or pushing to raise or lower table. Electric models are preferred to provide universal ease of access for all users.
- Adjust from 24 to 48" (minimum range).





For Mr. Manning:

- ☐ **Initially, if sit/stand pursued, Ok to try table without keyboard tray.**
- ☐ **Review options that are ~72" wide to accommodate screen width**
- ☐ **Fitting a sit/stand into the current space may require further evaluation by Denise Conover.**

Please contact Denise Conover in Procurement for sit/stand options.

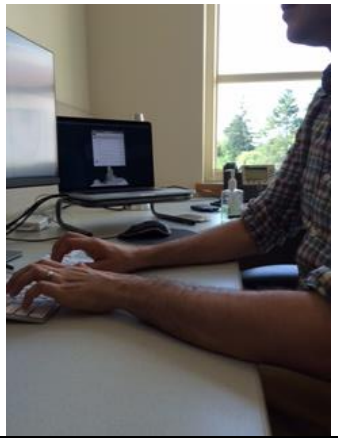
2. Keyboard and Mouse

The keyboard is **above** elbow height.

When keying, the **arms are in a forward position** and the elbows are away from the side of the body.

Wrists are bent while using the mouse and keyboard.

While using the mouse, the right arm reaches over the number pad to the mouse.



The goal is to keep **the wrists straight and the arms in a relaxed posture near the body**. Typically, placing the keyboard at about elbow height helps improve neutral postures. This is determined by resting the arms comfortably at one's sides, forearms about parallel to the floor or in a downward slope toward the floor, and wrists straight.

a. To position the keyboard at about elbow height, install a 26-30" wide, single flat surface keyboard tray, without adjustment knobs or levers under the tray surface. The tray should be easily adjusted for height and angle. **The Humanscale 5G500 model** meets the suggested style.

b. Mount tray to desk.

*If sit/stand pursued, this style tray can be attached to the table. Check with vendor to be sure tray can be attached to table.

c. To facilitate more neutral wrist postures and an "open" elbow position, try placing the keyboard tray in a negative tilt position. The front edge of the wrist rest should be at or slightly below elbow height.

d. Use the wrist rest as a neutral resting place when **NOT** typing.

	e. To decrease reaching, push the chair in close to the tray/desk. f. Place keyboard so that the letter "B" lines up with the center of the body. g. **Regarding the mouse**, to avoid overreaching with the right and to balance work between the left and right hands, try the mouse on the left some of the time. Try reassigning the "click" buttons when the mouse is placed on the left. h. To minimize reaching to the mouse, consider a keyboard without a number pad or a movable number pad.
3. Computer Screen <u>Location/Height</u> The top of the computer screen height is within recommended parameters. Views 2 wide computer screens and a laptop. The right screen is used more frequently. On left screen, occasionally views email and calendar. Rarely views laptop. Screens with current setup require 72" of desk width.	For most users, the top of the computer screen should be slightly below eye level. a. Place screens with the top line of the screen at or slightly below eye level. b. To facilitate more neutral neck positions: ✓ When using 2 screens, try to keep the most frequently viewed items directly in front of the face and minimize rotating head to the far left or right.

A copy of this report was sent to Mr. Manning. A follow-up visit can be scheduled by contacting EHS.

DF:cw
cc: J. Manning
M. Rhoad, EHS
K. McBride/D. Foster, ORICS