SCHWEIZERISCHER NATIONALFONDS ZUR FÖRDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG

Zürcher Hochschule für Angewandte Wissenschaften
Angewandte Linguistik
Gesundheit

Cognitive and Physical Ergonomics of Translation

What can we do to make a computer workplace more ergonomic?

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Objectives of the workshop

Zurich University of Applied Sciences

- **You are able to set up an ergonomic computer workplace.**
- **You can identify unfavourable posture patterns.**
- **You know how to prevent health problems caused by computer work.**

Burdens of a computer workplace
What's the challenge?

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The main challenge for professional translators is the one-sided strain!

Translators – just like many other people in the service industry – sit most of their working time in front of a screen without a lot of change in their posture.

- The physical load on the body during the day remains the same.
- This one-sided strain can cause problems especially when the workplace is not set-up ergonomically or if the translator has poor posture.

What can we do to prevent health problems?

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Environment	Person
Ergonomic adaptations • **Adaptation of the work condition to the abilities of the person.** • **The aim is to optimize the work conditions to minimize the health burdens.**	**"Healthy" behaviour** • **Body: Good physical state and posture, regular exercise** • **Behaviour at work: regular breaks, changing working position, …**

Set up a computer workplace in theory and practice

Method

- Theoretical input
- Practical demonstration
- Examples from practice with pictures from the ErgoTrans project

Lighting

Position of the screen in the room: The screen should be positioned so that the light comes from the side. This will prevent reflections and glare.

Window/light: The light should always be indirect. The line of sight should be parallel to the window.

Adjusting table and chair

Picture: http://www.ekas-box.ch/en/#!/home

Chair height: The feet should be flat on the floor. Knees and hips should have an angle of at least 90°. ➡ Important for posture and blood circulation.

Table height: When sitting upright in the chair, arms should rest on the table (90° angle).

Footrest

Picture: http://www.ekas-box.ch/en/#!/home

Footrest: Should be used if the table is not adjustable and/or the feet do not reach the floor.

It is better to adjust the table and chair if possible.

Chair

Picture: http://www.ekas-box.ch/en/#!/home

Seat: the back should press lightly against back of the chair. There should be a gap between the knees and the seat of at least two fingers.

Chair back: Should be flexible to lean back and still provide enough resistance to support the back.

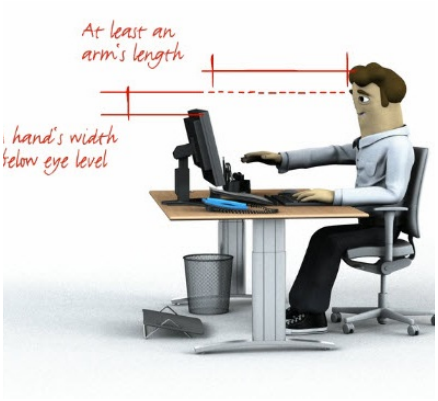
Chair

Picture: http://www.ekas-box.ch/en/#!/home

Lumbar support: Office chairs have a curved chair back. The curve should support the lumbar lordosis correctly.

Armrests: When sitting upright the elbows should rest lightly on the armrests (angle of at least 90°). Armrests are not a necessity.

Screen



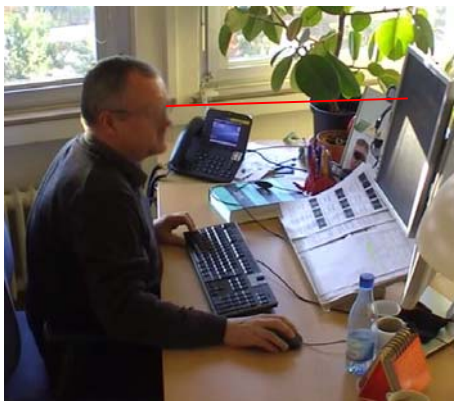
Picture: http://www.ekas-box.ch/en/#!/home

Position: straight in front of the person.

Distance: Between the eyes and the screen should be at least one arm's length (around 27.5-35.5 Inches).

Height: top of the screen should be one hand width below the level of the eyes.

Screens
Examples from practice



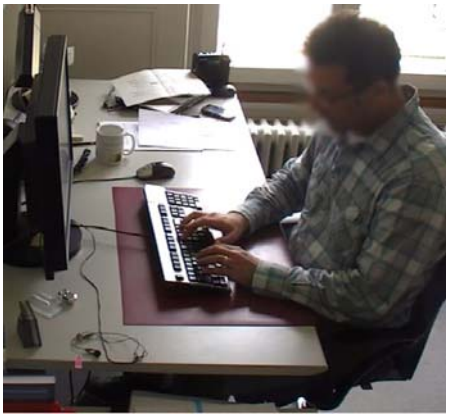
Keyboard and mouse

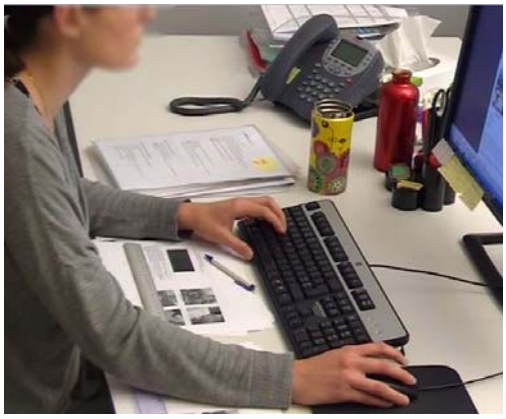
Picture: http://www.ekas-box.ch/en/#!/home

Keyboard: Keyboard should be directly in front of the person. The distance to the edge of the table should be between 4-6 Inches (10-15 cm), so that the heels of the hands can rest on the table.

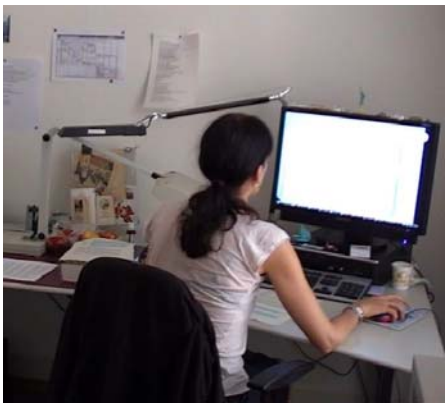
Mouse: Should be as close as possible to the keyboard.

Keyboard
Examples from practice





Mouse
Examples from practice



- Reaction of the mouse is too slow, resulting in big movements.
- Mouse is too far away from the body.
- Wrist should be straight in line with the arm.

Keyboard without number key pad
Possible aid

Keyboard: Enables to work with the mouse closer to the body

- Less stress for the shoulder
- (and for the wrist)
- If you have to enter lots of numbers it should have a number key pad.

Light

Picture: http://www.ekas-box.ch/en/#!/home

Light (window or office light) should never come from the front or the back of the monitor or directly above the head (glare or reflection).

Light sources should always come from the side and should be individually adjustable.