

Zurich University of Applied Sciences

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IUED Institute of Translation and Interpreting

English
Français
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**Ergonomics of translation:
methodological, practical and educational implications**

Maureen Ehrensberger-Dow
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Ergonomics of translation: methodological considerations



Theoretical framework of ZHAW research group:

- Situated cognition
 - human cognition extends beyond internal processes to individuals' physical and social situation (cf. Hutchins 1995; Clark & Chalmers 1998/2010)
- Situated activity of professional translation
 - from an ergonomic perspective
 - physical, cognitive, organizational factors
- Pragmatic approach
 - mixed methods
 - qualitative and quantitative
 - action research

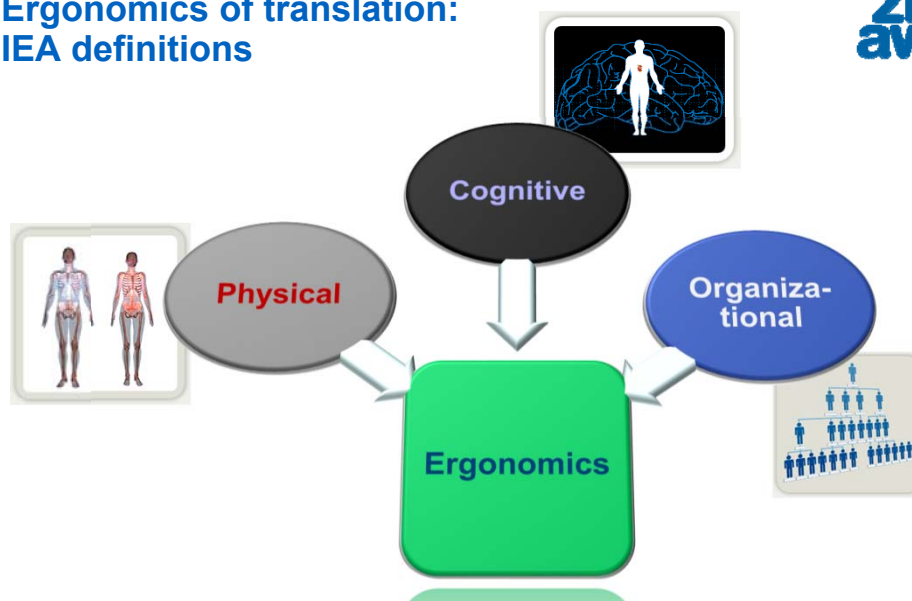
Ergonomics of translation: definitions



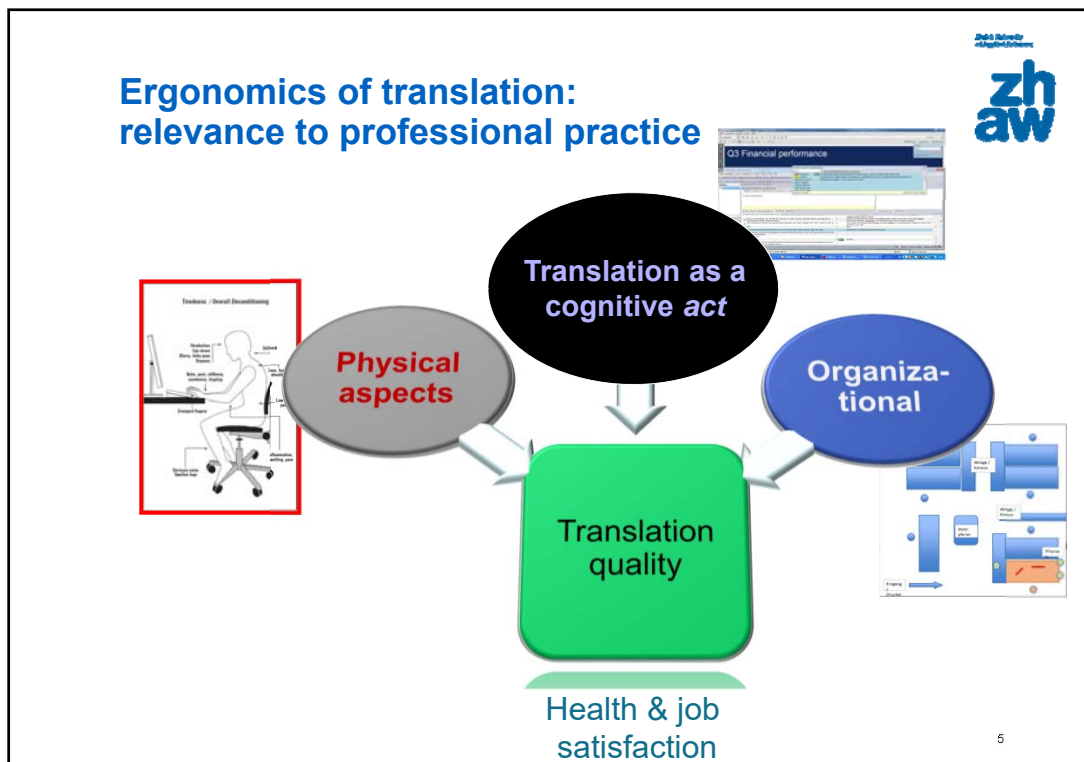
- Greek (ergon=work; nomos=laws) on analogy to *economics* (Jastrzebowski 1857/2006)
- synonymous with “human factors”
*That field which is involved in conducting research regarding **human psychological, social, physical, and biological characteristics**, maintaining the information obtained from that research, and working to apply that information with respect to the design, operation, or use of products or systems for **optimizing human performance, health, safety, and/or habitability**.* (Stramler 1993: 148)
- human side of usability, with a focus on the **user** rather than on machines or tools (ISO 9241-210; Norros & Savioja 2007)

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Ergonomics of translation: IEA definitions



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**Ergonomics of translation:
practical considerations for workplace research**

Ethical issues:

- translator/employee anonymity
- *truly* informed consent
- employer anonymity / reputational risks
- client confidentiality

Logistical issues:

- time, space, availability, accessibility
- infrastructure (IT, software downloads, compatibility)
- remuneration / loss of income
- disruption of routines / reactivity
- research team flexibility (e.g. on-site supervision)

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Physical aspects of translation

ErgoTrans survey (n=1,850)

Good practice indications:

- desktop for most translation work
- keyboard flat on desk
- keyboard shortcuts used at least sometimes
- two screens used for translation work
- at least one screen directly in front
- screen about an arm's length away
- top of monitor slightly below eye level
- screen larger than A4 (>20x30 cm)
- magnification of screen adjusted

* Significant difference between freelance, commercial, institutional translators (Ehrensberger-Dow et al. 2016)



Results

61%
66%
90%
30%*
92%
68%
37%
81%*
41%


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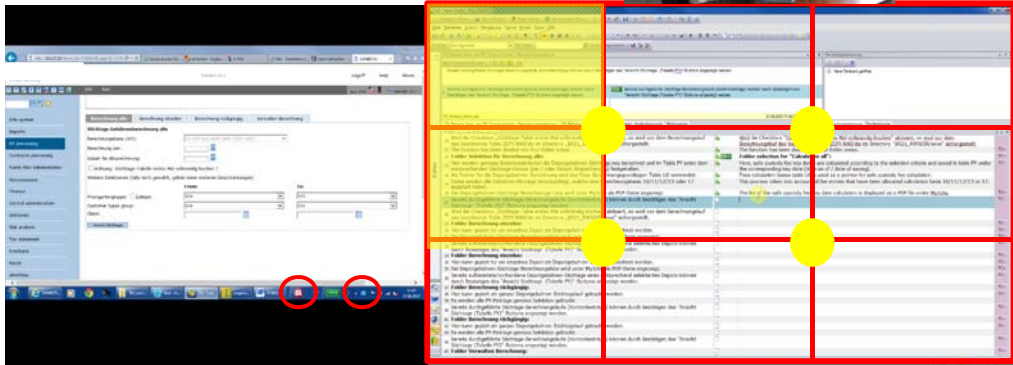


Results

61%
66%
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68%
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Cognitive aspects of translation

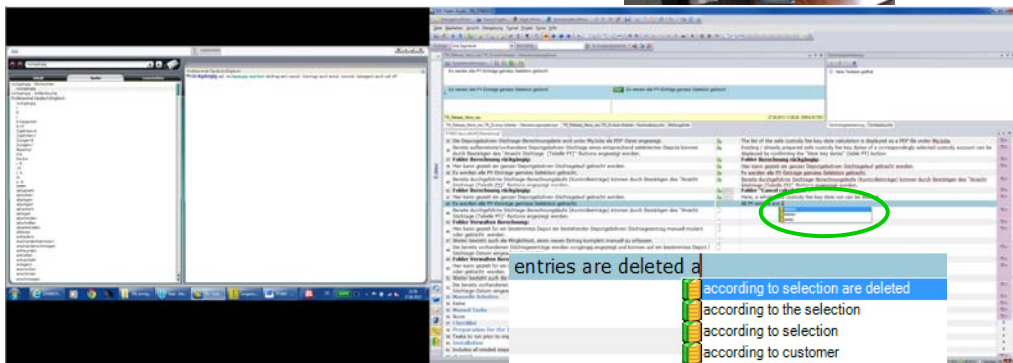
ErgoTrans workplace study (n=31)




(Ehrensberger-Dow & Hunziker Heeb 2016)

Cognitive aspects of translation

ErgoTrans workplace study (n=31)



(Ehrensberger-Dow & Hunziker Heeb 2016)



Cognitive aspects of translation

ErgoTrans survey (n=1,850)


Good practice indications:

- CAT tool(s) used for translation
- CAT tool(s) helpful at least sometimes
- **customize aspects of CAT tool(s)**
(layout, tag visibility, font type, colors, other)
- **CAT tools not irritating**
- **no comments about CAT irritations**
(user interface, specific CAT features, technical performance, text appearance, compatibility, organizational aspects)

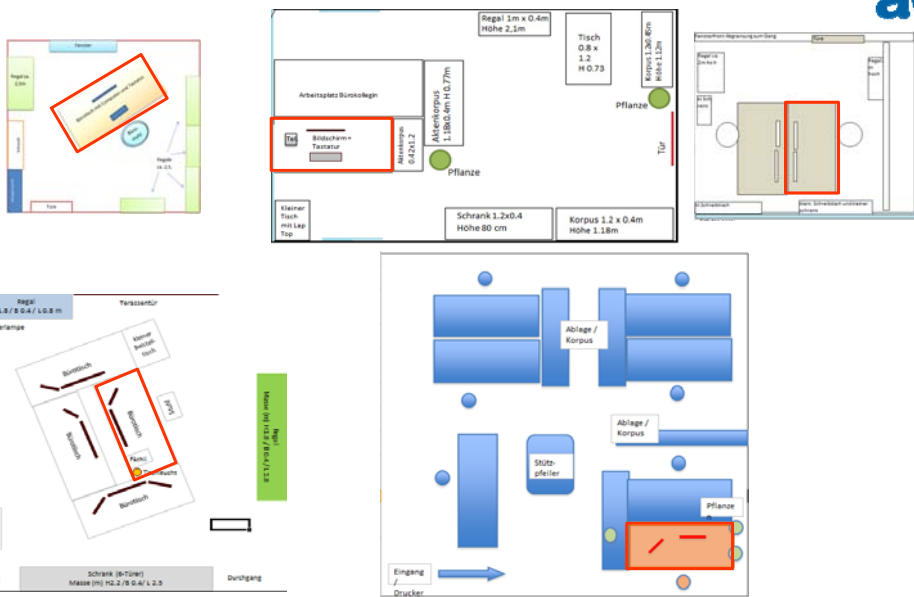
<i>Results</i>	
73%*	
97%	
46%	
41%*	
8%	

* Significant difference between freelance, commercial, institutional translators (Ehrensberger-Dow et al. 2016)

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Organizational aspects of translation



(Ehrensberger-Dow et al. 2016) 12

Organizational aspects of translation



ErgoTrans survey (n=1,850)

Good practice indications:

- internet connection mostly or always good
- communication mostly or always adequate
- **workflow software used at least sometimes**
- resources provided at least sometimes
- feedback about work at least sometimes
- deadlines for tasks mostly or always clear
- **time pressure, but not mostly or always**
- timing of breaks at least sometimes
- hourly breaks at least sometimes

Results

96%
97%
31%*
65%*
74%
95%
51%*
98%
68%*

* Significant difference between freelance, commercial, institutional translators
(Ehrensberger-Dow et al. 2016)

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Ergonomics of translation: some recommendations from workplace research



- ✓ reflect and act on own feedback mechanisms during the translation process (e.g. physical discomfort, fatigue)
- ✓ increase frequency of (mini) breaks (e.g. stretch between tasks and then check e-mail)
- ✓ recognize warning signs of reduced attention (e.g. typos, mistakes, regressions)
- ✓ only use e-mail notice function when completely necessary
- ✓ take ownership of technology
- ✓ reduce mouse activity by using shortcut keys and arrows
- ✓ adjust default settings of frequently-used software
- include ergonomic awareness in translator education

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**Ergonomics of translation:
educational implications curriculum development**



Does it matter **whether** students are taught ergonomics?

Does it matter **when** ergonomics is taught?

Does it matter **who** teaches ergonomics?

Does it matter **how** ergonomics is taught?

Can instruction about ergonomics be **extra-curricular**?

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**Ergonomics of translation:
educational implications curriculum development**



Does it matter **whether** students are taught ergonomics?

- heighten awareness of the demands of computer work

Does it matter **when** ergonomics is taught?

- introduce early and follow up with reminders

Does it matter **who** teaches ergonomics?

- translators, ideally with occupational health input

Does it matter **how** ergonomics is taught?

- at least one hands-on block with peer feedback

Can instruction about ergonomics be **extra-curricular**?

- useful as a supplement and/or refresher

Examples: [Laptop ergonomics](#) [Office health](#)

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Ergonomics of translation: educational implications for our BA curriculum

Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6
Languages (L1, L2, L3)	Languages (L1, L2, L3)	Language & translation	Language & translation		Language & translation
Context	Context	Language & culture	Language & culture		Language & culture
Linguistics	Linguistics	Comm. studies	Comm. studies	Comm. studies	BA thesis
Research skills	Research skills				
				Options / abroad	

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Ergonomics of translation: educational implications for our BA curriculum

Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6
Languages (L1, L2, L3)	Languages (L1, L2, L3)	Language & translation	Language & translation		Language & translation
Context	Context	Language & culture	Language & culture		Language & culture
Linguistics	Linguistics	Comm. studies	Comm. studies	Comm. studies	BA thesis
Research skills	Research skills	CAT tools	AVT		Web trans.
		Multimodality	Respeaking		Usability
				Options / abroad	

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**Ergonomics of translation:
educational implications for our MA curriculum**



Semester 1	Semester 2	Semester 3
Applied linguistics	Applied linguistics	
Multilingual contexts	Multilingual contexts	
Methodology	MA thesis proposal	MA thesis

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**Ergonomics of translation:
educational implications for our MA curriculum**



Semester 1	Semester 2	Semester 3
Applied linguistics	Applied linguistics	
Multilingual contexts	Multilingual contexts	
Methodology	MA thesis proposal	MA thesis
Business & law	Science & technology	
Translation courses	Translation courses	Translation courses
Theory + practice	Accessibility	Revision / internship
Complementary skills	Complementary skills	
MT, pre- + post-editing		
Writing competence		

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Industry and institutional partners

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Commercial, institutional, and freelance translators

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