

An international survey of the ergonomics of professional translation

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July 2015

At the XXth FIT World Congress in Berlin, two members of our research team gave a presentation about an on-going project at our university called *Cognitive and Physical Ergonomics of Translation*¹. We ended the presentation by asking the audience to approach us during the Congress if they were interested in participating in a survey about the ergonomics of professional translation. We were overwhelmed that afternoon and the next two days by the positive response and by the number of business cards that were pressed into our hands. Ergonomics was clearly of interest to these professionals, who presumably spend much of their day sitting at computers carrying out complex cognitive tasks and are aware of the importance of well-designed workplaces.

The survey was developed by a team of translation studies and occupational therapy researchers at our university. It was designed to probe various aspects of ergonomics which, as the International Ergonomics Association² explains, goes beyond the physical to include factors that affect mental processes as well as organisational structures and work processes. In line with this broad definition of ergonomics, the questions in the survey were divided into five categories: 1) workspace and environment; 2) computer workstation; 3) tools and resources; 4) workflow and organization; and 5) health and related issues. The survey was made available in six languages (de, en, es, fr, it, pt), and the link was sent to all those people who had approached us at the FIT Congress as well as to professional organizations, language service providers, and personal contacts throughout the world.

Who participated and what did they tell us?

By the end of 2014, a total of 1,850 translators from almost 50 countries had completed the survey: most of them were women (79%), were 26-55 years old (79%), and worked more than 20 hours a week as a translator (79%). By far the majority worked as freelancers (77%), although almost 250 translators working at institutions and over 160 working at commercial enterprises also responded to the survey. A small majority (56%) of the respondents reported that they translate exclusively into their first language. Rather surprisingly for such a keyboard-intensive activity, only 52% of the translators said that they were touch typists, with no difference between younger (i.e. 18-45 years old) and older translators (46 years old and over).

In answering the questions, the translators were asked to consider the workplace at which they do most of their translations. For most of the freelancers and institutional translators, this was in a room by themselves, but far fewer of the commercial translators had this situation (see Fig. 1). In fact, almost 20% of the commercial

¹ www.linguistik.zhaw.ch/ergotrans/en

² <http://www.iea.cc/>

translators shared their workspace with at least 10 other people, which has implications for ergonomic aspects such as ambient noise and distractions. Proportionately more commercial translators are disturbed because they cannot control the airflow or lighting or look out of a window (see Fig. 2), and more use headphones to block out noise. The majority of both institutional and commercial translators are also disturbed by colleagues moving around or chatting. And about 70% of all the translators reported that they were sometimes, mostly, or always disturbed by emails, chats, and phone calls.

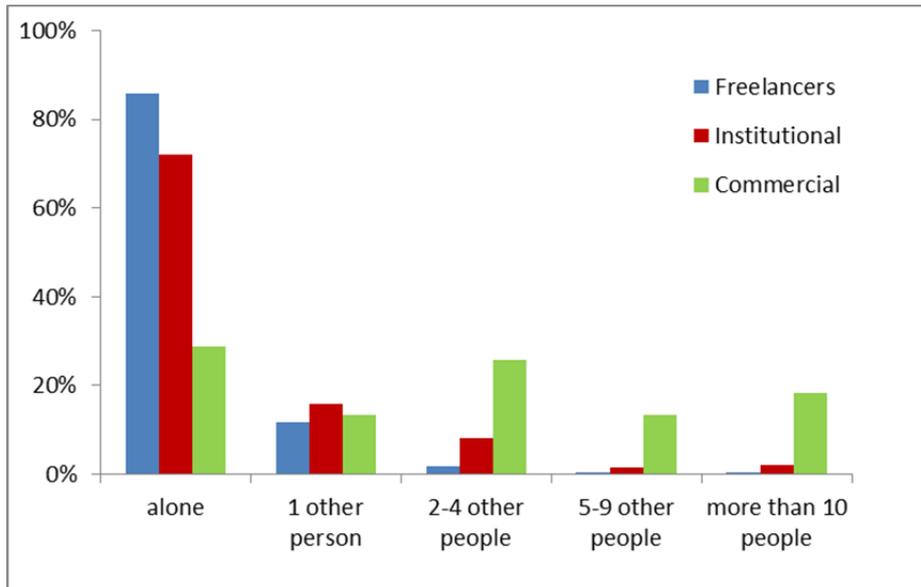


Fig. 1. Number of people in office

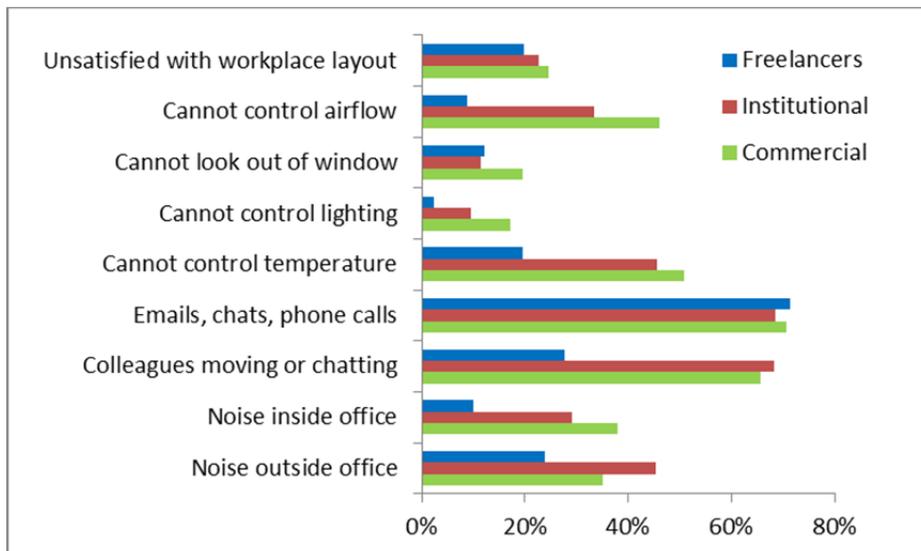


Fig. 2. Disturbances affecting translation work

The results for the questions about physical aspects, such as desk, chair, and computer, suggest that freelancers in particular might benefit from paying more attention to the ergonomic aspects of their workplace. Fewer of them have a dedicated workplace, a large enough desk (i.e. at least 120x80 cm), an adjustable desk or chair, or their elbows at the same height as their desks when they are working. Also worrying for potential health issues such as muscle and joint strain, freelancers are much more likely to use a laptop computer instead of a desktop than the other two groups (44% vs.

18% for institutional and 25% for commercial translators) and much less likely to use peripherals such as a separate screen or keyboard. Only 25% of the freelancers use two computer screens, whereas almost half of the institutional and commercial translators do. More of the freelancers' screens are small, which increases their risk of eye strain. Just over half of the freelancers have their screens too high, which increases the risk of neck strain, but even more of the institutional and commercial translators do as well (67% and 64%, respectively). Interestingly, proportionately more freelancers use an ergonomic mouse or ergonomic keyboard (31% and 20%, respectively) than the other translators do – perhaps as a compensation for other less-than-ideal conditions? Overall, the institutional and commercial translators' responses indicate that their workplaces and computer workstations have quite adequate physical ergonomic profiles, which may help to compensate for the constraints and disturbances inherent to sharing office space with others (listed in Fig. 2).

Almost a third of the translators over 45 and just under a quarter of those up to 45 reported that they did not use any CAT tools. As shown in Fig. 3, proportionately more of these are freelancers than institutional or commercial translators. This suggests that many freelancers are missing out on the potential advantages of efficiency and consistency that CAT tools can offer, since 96% of all those translators who use CAT tools say that they sometimes, mostly, or always find them helpful. Somewhat surprisingly, freelancers are more likely to use two CAT tools than the other groups, perhaps because of client requirements, which means that they have the extra cognitive effort of switching interfaces between jobs. Indeed, more than half of the translators who switch between CAT tools reported that it disrupts their productivity (i.e. *sometimes, mostly, or always*). Half of the freelance and institutional translators who use CAT tools keep the default settings instead of exploiting the possibilities that do exist to customize the tool. Commercial translators are much more likely to customize their tools, perhaps because they have received special training. Still, greater similarity between the features and interfaces of various CAT tools might help translators focus on their core business. Over half of the institutional and commercial translators said that there were things about their CAT tools that irritated them, and many offered details in the voluntary comment field. Although slightly fewer freelancers seemed bothered (46%), these results still suggest that there is room to improve the ergonomics of these tools.

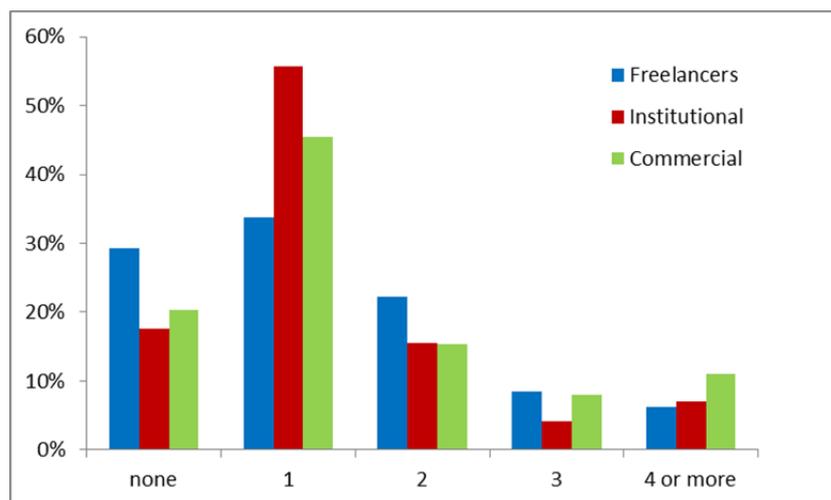


Fig. 3. Number of CAT tools used

With respect to workflow and organization, freelancers are more isolated than others, with resources such as parallel texts and style guides more likely to be never or rarely provided by the client. About half of them never or rarely discuss translation problems

with colleagues in person or by phone. Although this is partly compensated by more frequent use of online forums compared with institutional and commercial translators, they share with commercial translators a relative lack of feedback about their work. The isolation that freelancers experience seems to be the cost of the choice that they enjoy with respect to when they work, which translation jobs they do as well as how often, when, and where they take breaks. The results for the institutional translators are between those for the freelancers and the commercial translators in terms of workflow, organization, and feedback.

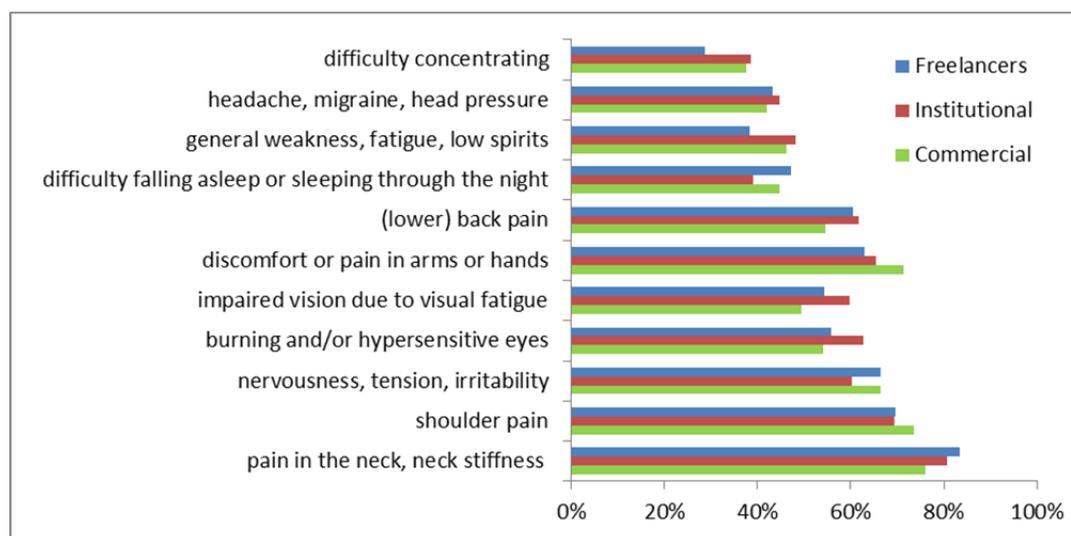


Fig. 4. Work-related medical issues

At the end of the survey, some general questions about health and well-being were followed by specific questions about medical issues and whether they were felt to be related to work. On a positive note, almost three-quarters of the translators reported being in good or very good health. Nonetheless, most of the translators who had experienced health problems in the previous 12 months said that those problems were related to work (see Fig. 4). Some of the most frequent complaints (pain in the neck or shoulder, burning eyes, visual fatigue, pain in arms or hands, back pain) would seem to be directly related to intensive screen work and activities associated with inputting text at a computer. Others (nervousness, sleeping difficulties, headache, lack of concentration) might be indications of cognitive overload due to less-than-optimal work conditions. The institutional and commercial translators were more likely to attribute health problems to their work than the freelancers were. This could actually be the result of a heightened awareness of the employed translators, since almost one-third of them had had the benefit of a workplace ergonomic assessment compared with only 7% of the freelancers. 64% of the translators said that they engaged in more than 1 hour of exercise per week, which emerged in a linear regression analysis as the key factor in maintaining health and coping with stress.

Where do we go from here?

As mentioned above, there is lots of room for improvement in the ergonomic conditions of translators' workplaces. When presented with a list of aspects of their workplace that should be more ergonomic (Fig. 5), over 44% of the translators chose the chair – potentially an expensive investment but obviously appreciated as an important one. Many of the freelancers also recognized that their desk size was problematic, reflecting the findings mentioned above, and the most frequent additional comment about desks was the desire to be able to work standing up. For the institutional and commercial translators, many aspects related to office conditions such as lighting, temperature, and air quality were identified, again confirming the previous findings. The survey results

make it clear that the ergonomic profiles of the three groups of translators are very different, and any assessment of their needs should take this into account. For example, 40-50% of institutional translators reported that they mostly or always revise their own or someone else's translation on paper, an activity that could be done while standing at a bookcase or a similar piece of furniture at the appropriate level. This would provide an opportunity for the translators to take a micro pause as well as introduce some variety in working posture.

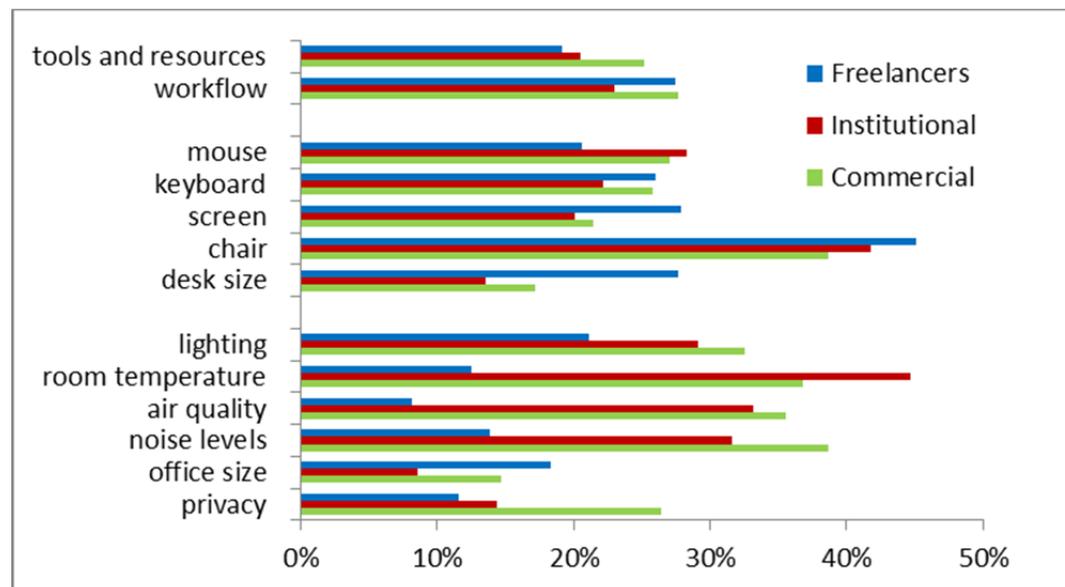


Fig. 5. Which aspects should be more ergonomic?

Our motivation for doing this research is to increase translators' and their employers' awareness of the physical and cognitive aspects of professional translation in order to improve conditions wherever possible. We believe that this will not only decrease the health risks associated with what has always been a desk-bound activity; it will also optimize the ergonomics of increasingly technology-driven workplaces. In turn, this will allow translators to do what they do best instead of wasting their time and energy dealing with non-ergonomic interfaces and tools.

We would like to express our appreciation to the translators who participated in the survey and to the Swiss National Science Foundation for supporting this project. If you are interested in learning more about our research, please feel free to contact us at ergotrans.iued@zhaw.ch or visit www.linguistik.zhaw.ch/ergotrans/en.

Some useful links to resources on ergonomics are listed below.

- Swiss Federal Commission for Occupational Safety
<http://www.ekas-box.ch/en/#!/home>
- European Agency for Safety and Health at Work
<https://osha.europa.eu/en/publications/e-facts/efact13>
- United States Department of Labor
<https://www.osha.gov/SLTC/etools/computerworkstations/positions.html>
- Canadian Centre for Occupational Health and Safety
<http://www.ccohs.ca/oshanswers/ergonomics/office/>
- Swiss Accident Insurance Fund
<http://www.suva.ch/startseite-suva/service-suva/lernprogramme-suva/ergonomie-am-bildschirmarbeitsplatz-suva.htm>