

Over the past decade, using machine translation (MT) has become a widespread practice among second language (L2) learners, in particular for writing tasks. However, our knowledge of the effects of MT use on the L2 writing process is still limited. By boosting learners' linguistic skills, MT may help learners to handle the competing demands on the different writing subprocesses better. These effects might also be larger for learners with lower proficiency levels. The WiLMa project aims to test these hypotheses by comparing the MT-assisted writing process across proficiency levels with writing processes not assisted by MT.

Moreover, despite being a major component of the MT-assisted writing process, few studies have investigated MT consultation behaviour. These studies indicate that L2 learners' use of MT varies, that this variation may be related to L2 proficiency, and that it likely also affects the learners' writing products. Hence, the second objective of this research project is to map learners' variation in tool use, investigate its correlation with learners' L2 proficiency levels, and study its effects on the writing product.

To compare writing processes across proficiency levels, we need a reliable and valid instrument to quantify learners' L2 proficiency levels. We also need writing prompts that (1) elicit equivalent products and processes (i.e., are comparable) and (2) are attainable to the least proficient learners, as well as remain challenging to the most proficient ones (i.e., are multilevel). To this end, we carried out a pilot study, in which participants completed two L2 proficiency tests and responded to four prompts designed to be equivalent and multilevel. We assessed the two tests in terms of their validity and reliability. The prompts' equivalence and suitability for use with multilevel learners were analyzed by comparing product and process measures across the four tasks and across the learners' proficiency levels, respectively.

In the future, we will collect data on the writing processes and products of multilevel learners, by having them respond to the piloted prompts in two conditions: with access to DeepL (MT) and with access to Van Dale (an online bilingual dictionary). We will register their online behaviours with screen capture, keystroke logging, and eye-tracking, and their underlying cognitive processes with stimulated recall.