

Exploring interpreting quality and stress levels in simultaneous interpreting: The role of proper names and numbers

Simultaneous interpreting is widely regarded as a stressful and cognitively demanding activity (Gumul 2021; Gile 1995), as it requires interpreters to perform multiple tasks virtually at the same time. In addition to its inherent complexity, interpreters face various stress factors, ranging from linguistic or psychological challenges to technical malfunctions. Although there have been many studies on the influence of stress-inducing factors on interpreting, including studies investigating the effects of proper names and numbers (e.g. Gumul 2021; Olalla-Soler et al. 2023), no study has so far compared the impact of proper names and numbers on interpreting quality and interpreters' stress levels within a single experiment using the methodology adopted in the present study.

The aim of the study is to investigate the impact of both proper names and numbers on interpreting quality and stress levels in simultaneous interpreting. The study also aims to compare the performance and stress levels of professional interpreters and trainees. It investigates how proper names and numbers influence interpreting quality, which factor increases stress levels and cognitive load more, and whether experience influences the ability to cope with these challenges. Additionally, it examines the strategies used during interpreting.

The study will involve approximately 24 participants (12 professionals and 12 MA students), all Polish and highly fluent in English. Participants will be asked to interpret simultaneously four audio recordings from Polish into English. The recordings will differ systematically in the presence of stress-inducing factors: one will be neutral, with no additional stress factors; one will include proper names; one will contain numbers; and one will include both proper names and numbers. All four speeches will be measured with Jasnopis (Gruszczyński and Ogrodniczuk 2015) to ensure comparability in terms of length and complexity, differing only in the presence of the target elements. All speeches will be presented at a comparable rate to minimize variation in delivery rate. The order of the recordings will be counterbalanced across participants to control for potential practice or fatigue effects. After interpreting each recording, participants will be asked to complete two questionnaires: NASA-TLX (Hart and Staveland 1988) to assess perceived cognitive load, and STAI (Spielberger 1983) to measure stress levels. The quality of interpreting will be measured using error analysis described by Bartłomiejczyk (2010). The recordings will be analysed for communicative errors (e.g. incomplete or ungrammatical utterances) and delivery issues (e.g. hesitations), with each type of error assigned penalty points depending on its severity. Moreover, seeing as questionnaire-based measures are bound to be subjective, the study will also include an analysis of fundamental frequency (F0), which is widely regarded as a more objective and reliable indicator of stress.

Both proper names and numbers are expected to increase cognitive load, reduce interpreting quality, and raise stress levels, with numbers posing a greater challenge. Professional interpreters are expected to outperform trainees. The findings may contribute to a better understanding of stress in simultaneous interpreting and have implications for interpreter training.

Keywords: simultaneous interpreting, interpreting quality, stress, numbers, proper names

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