

# Measuring Time Pressure in Translation: A Usability Test of Physiological and Psychometric Methods

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This study serves as a usability test of the psychometric and physiological measurements of stress, especially time pressure in written translation by triangulating the behavioural, psychometric and physiological data. Time pressure as a salient stressor on translators, will result in not only behavioural responses, but also subjective experiences and physiological consequences, such as elevated levels of anxiety, blood pressure, heart rate and electrodermal arousal. Although there were empirical studies which investigated time pressure in written translation (e.g. Jensen & Jakobsen 2000; De Rooze 2003), the major limitation of these existing studies, as Bayer-Hohenwarter (2009) pointed out, was the insufficiency for a valid objectivation of “stress”. Psychological assessment of anxiety such as State-Trait Anxiety Inventory (STAI), and physiological manifestations of stress such as heart rate, blood pressure and galvanic skin response (GSR) have already been used in some interpreting studies (Korpál 2016; Korpál & Jasielska 2018) as main methods of measuring the interpreters’ stress, emotion and empathy. Since the stress experienced by interpreters and translators are different by nature, there is a necessity for a test of applicability of these methods in researching written translation, a much more widely practiced translation modality.

In this pilot study, 11 participants were asked to translate three comparably difficult source texts in three sessions of different time frames. They were asked to wear the Empatica E4 Wristband to record their heart rate and GSR during the task. Measurements of their anxiety levels by STAI and blood pressure by an Omron blood pressure monitor were carried out before the first session and after each session. The authors hypothesised that while translating under tight time pressure in the short session the participants would experience a higher level of stress leading to higher levels of psychometric and physiological parameters than in a longer session, and it is corroborated by the results.

**Keywords:** Time Pressure; Heart Rate; Blood Pressure; Galvanic Skin Response; State-Trait Anxiety Inventory

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