



Title of Project:

A Comparative Study on Candidates' Cognitive Processes Completing IELTS, TOEFL iBT, and CET-6 Reading Tests: Evidence from Eyetracking

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TIRF Research Topic Investigated:

Language Assessment



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Project Summary:

Research in language testing and assessment is always concerned with the extent to which a test can exhibit validity, especially in the case of high-stake and large-scale tests which have important impacts on various stakeholders (Chapelle, 2012; Weir, 2005). One important aspect of validity evidence that should be demonstrated is the cognitive processes elicited by test tasks and the extent to which they are equal to real-life domains, namely cognitive validity (Bax, 2013; Bax & Weir, 2012; Field, 2011; Khalifa & Weir, 2009; Shaw & Weir, 2007). The process-oriented validation research would also help us better understand the construct being tested. This study aims to investigate candidates' cognitive processes while completing the IELTS, TOEFL iBT, and CET-6 reading tests.

To investigate candidates' cognitive processes used in the three reading tests, this study will employ a mixed-methods approach combining eye-tracking technology and retrospective interviews. The use of eye-tracking provides a rich eye movement data source of natural language processing. Participants' eye movement during test completion will be recorded and then presented as stimuli in retrospective interviews to remind them of their moment-to-moment cognitive processing. The quantitative eye movement data will be coupled with qualitative interview data to arrive at valid interpretations made on how participants answer particular test items. Moreover, this study builds upon Khalifa and Weir's (2009) reading model to identify and describe particular levels of cognitive processing. This model provides a fine picture of how test takers attend to reading tasks.