

Graduate School of Education

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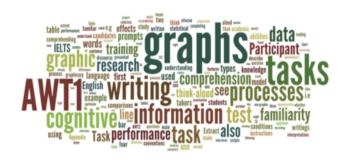
Graphicacy and Cognitive Processes in Tests: a case of IELTS Academic Writing Task One

Key findings

Test scores from the International English Language Testing System (IELTS) are used as a "hard" criterion for international student admission in a large number of universities around the world. Many universities require additionally a certain level of sub-score of the writing test. As part of the ongoing validation study of the writing tasks, this research project investigated the cognitive processes of test takers when completing IELTS Academic Writing Task One (AWT1) using different graphic prompts.

Key findings include:

- Test takers' graphicacy did not seem to affect their test scores; however, there were clearly some potential psychological impacts of graph familiarity on task performance.
- Test takers' English writing abilities, expectations and experiences of academic writing shaped the way by which they interpreted and re-produced their graph comprehension in a written discourse.
- Features of graphs affected test takers cognitive processes and writings in a number of ways (e.g., in their choice of vocabulary in writing, in the extent to which they would follow the graph conventions in the processes of presenting, interpreting ande-producing the graphic information)



The research

This British Council funded research project contributes, independently, to the Joint Research Programme (www.ielts.org) of IELTS Partners (British Council, Cambridge Assessment, and Australia IDP). It explored the extent to which test takers' cognitive processes are affected by the use of different graphs, their graphic skills (or graphicacy) and English writing abilities which the AWT1 tasks aim to measure.

The findings of this research are useful for a number of stakeholders, e.g., test providers, test takers and language teachers, to develop a greater understanding of AWT1 tasks and other similar tasks using graphs as prompts (e.g., in listening and speaking assessment). The study contributes to the development of theories and practices in second language writing, in particular, in relation to the roles that non-language knowledge and skills can play in language test performance.



Language cloud

Research design

We employed a case study and grounded approach to this research, as this was congruent with the focus of the study and the importance of gaining in-depth understandings of the cognitive processes. Data were collected from 24 intending IELTS test takers from a leading Chinese university at 5 stages:

- We collected baseline data of test takers' graphicacy, English writing ability in normal examination conditions, and provided them with training on how to think-aloud while doing AWT1 tasks at Stages 2 & 4.
- Test takers completed four AWT1 tasks of different graphs, in random order, while thinking-aloud their test taking processes (which were audio-recorded).
- Using the think-aloud protocols collected at Stage 2 and other test preparation materials, we offered short intensive training to test takers on how to achieve better score in AWT1.
- Exactly as at Stage 2, test takers completed four more AWT1 tasks.
- 5. All test takers were then interviewed to further explore their cognitive processes.

Further information

Read the final report of this project

Currently, Dr Guoxing Yu is working on two new "spin-off" research projects, using eye-tracking, to further explore test takers' cognitive processes when completing graph-based writing tasks in different tests.

- A Comparability Study on the Cognitive Processes of Taking GEPT (Advanced) and IELTS (Academic) Writing Using Graph Prompts (Funded byGEPT Taiwan)
- The Cognitive Processes of Taking IELTS Academic Writing Task One: From Concurrent Think-aloud to Eye-tracking with Retrospective Interviews (Funded by British Council)

Website

http://www.ielts.org

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