
TITLE

Looking into test-takers' cognitive processes when completing reading tasks

This is a summary of a report by Tineke Brunfaut and Gareth McCray as part of the ARAGs Research Online Series. For a copy of the full report, see www.britishcouncil.org/exam/aptis/research/publications/

WHAT WE LOOKED AT:

In our research, we wanted to find out what English language learners do when they try to correctly complete the Aptis reading test. Knowing how language learners complete a test can help us determine whether the knowledge and skills language learners use to arrive at the correct answers are those which the test developers thought they would be using. A good match between what learners do and what test developers intend them to do, in order to answer a question correctly, gives an indication that the test is measuring the intended skill.

According to past research, when readers try to comprehend a text, they may do things such as try to recognise words from the print, identify the meaning and form of the words, and connect together series of words to understand whole sentences. They may also try to infer the meaning of parts of the text when these are not explicit, combine information given in different parts of the text, and form an interpretation of the text as a whole. Which of these things readers do, may be influenced by what the purpose of their reading is. Thus, readers may decide to read the text carefully and try to comprehend all the information in the text, or they may decide to selectively search for specific information in the text without reading everything. Readers may also try to get an overall understanding of the text as a whole, or they may concentrate on specific sentences or parts of sentences and try to understand these in detail. In sum, readers may have different goals for reading a text and this may influence what they do when reading.

We aimed to find out which of the above reading processes English language learners use when they are completing the Aptis reading test. We wanted to know this in general, but we also wanted to see whether different language learners complete the test in a similar or different manner. More specifically, we wanted to find out whether there were any differences in how the test is completed between learners of different English proficiency levels. Also, since the Aptis reading test consists of four different reading tasks, we wanted to find out what learners do to complete each individual task, and whether there are any differences between the four tasks.

HOW WE DID IT:

Twenty-five English second language speakers took part in our research. They were all adults studying at a British University. Their first language was either Chinese, Russian, or Thai. The group consisted of an approximately equal number of male and female participants.

We asked each of these English language learners to complete two full versions of the Aptis reading test. Since the Aptis reading test contains four tasks, this means that each participant

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completed eight reading tasks in total – two of each of the four different tasks. Also, since the Aptis test is computer-based, the participants completed the reading tasks on a computer.

While a participant was completing the reading tests, we recorded how their eyes were moving using an eyetracker that was attached to the computer screen. After the participant had finished a reading task, we showed them the video of their eye movements. We asked the participant to try and describe to us what they had been thinking while completing the reading task and how they had completed it. We offered the participants the choice to explain this to us in English or in their first language and we video-recorded what the participants said. The participants did this for each of the eight Aptis reading tasks.

Afterwards, we visually and statistically analysed the participants' eye movements. For example, we looked at how long and how many times their eyes had rested on specific parts of the reading texts, or how frequently their eyes had moved forward and what the length of these movements was. We also transcribed the recordings of what the participants said they had done to complete each reading task, and we categorised this information according to the different reading processes (for example, whether they read carefully, inferred meaning, tried to form a global idea of the text, etc.).

Because we also wanted to know whether the participants' level of English proficiency made a difference in how they completed the reading test, we also asked them to do the entire Aptis test system – vocabulary and grammar, listening, reading, writing and speaking. In this manner, we could divide the participants in groups according to their English proficiency level and check whether there were systematic differences between the groups in terms of how they completed the reading tasks.

WHAT WE FOUND:

We found that, in many cases, when participants had managed to give the correct answer to a test question, they had carefully read the text to obtain an overall or a detailed understanding of it. In other cases, they had used search reading strategies or skimmed the texts. The participants had also used processes such as identifying the meaning of words or sentences and piecing together various different bits of information from a text.

When exploring whether there were any differences according to the language learners' proficiency level, we noticed that there were some trends in how different ability groups had solved the reading tasks. However these were not very pronounced. Much more marked differences, were found between how the English language learners had completed each of the four different types of reading tasks in the Aptis test. For example, while completing several of the questions in the first reading task (which was a multiple-choice gap-fill task targeting a low reading ability level), most learners carefully read the text and primarily tried to understand the meaning of individual (parts of) sentences. For the fourth type of task (in which learners had to match headings to the different paragraphs of a long text and which targeted a higher reading ability level), they used a more global reading approach (careful reading as well as skimming).

As a final step, we compared how the English language learners had completed the Aptis reading tasks with how the Aptis test developers thought test-takers would solve the tasks. Overall, we found that the Aptis reading test as a whole samples widely from the reading processes described in the academic literature and in the Aptis Candidate Guide, which suggests that the test is measuring the intended skills. Generally, there was also a good match between what many learners did and what test developers intended them to do for each reading task, with the exception of the third task type which elicited considerably more careful, local reading than originally intended.