

## **Strategies used by deaf and hearing children during online reading: insights from a think-aloud study**

We investigated online reading strategies in deaf and hearing teens in a pilot project to explore if hearing and deaf readers use different strategies to search for online information. Twenty-five participants (aged 13 – 14) with reading levels an average of 1 Standard Deviation below their expected age comprehension level completed two search activities on the internet. Three groups were included: n=10 Deaf with British Sign Language (BSL) as preferred language; n=8 deaf with English as preferred language; n=7 hearing English speakers with English as the school language and Somali as the home language.

Search task 1 involved finding the answer to a typical Geography school homework question. Search task 2 asked about how to put text on video; we expected this would include the use of video and other multimodal online sources. A think-aloud method was used, adapted from Coiro (2007) for this study. The young people were asked to comment on their reasons throughout the task. Participants also completed a questionnaire about their use of the internet and confidence in their languages. Researchers were fluent in BSL and English. Data were collected through voice and video recording and screen capture software Camtasia. Physical actions and utterances were coded using Coiro's analytic framework.

Although findings are from small numbers, they suggest that scrolling internet pages was associated with more evaluative comments. Comments indicating planning by participants were associated with more evaluation of text on the pages they visited. Pupils who used the internet for longer at home were able to draw on better knowledge of how search engines worked as an online reading strategy. The four participants with above-average reading skills were all deaf, three with BSL as their preferred language. These readers were able to draw on prior knowledge of the topic, use working memory well to remember the search question, take time to read and evaluate before deciding on an action, and think carefully about terms to type in the search bar. They made frequent use of self-regulated reading processes to evaluate their progress through a task.

The findings have possible implications for teaching more effective online reading strategies to diverse learners: ways of remembering the search question, spending time on reading, evaluating and scrolling, and to adopt more self-regulatory actions. The next steps will include looking at larger, more diverse groups. The team found that the way think-aloud was used did not suit all participants; in future research we would like to explore a paired discussion task which would allow think-aloud to be used in a more naturalistic setting.

Reference:

Coiro, J., & Dobler, E. (2007) Exploring the online reading comprehension strategies used by sixth-grade skilled readers to search for and locate information on the internet. *Reading Research Quarterly*, 42 (2) 214 – 257.