

THIRD SPACE LEARNING

Who are you?

[Third Space Learning](#) (TSL) is an online tuition platform, offering one to one teaching to disadvantaged children in the UK using expert mathematics tutors, based mainly in Sri Lanka. Lessons are tailored to meet the needs of individual students and aim to plug any gaps in pupil knowledge.

The company has recently been selected as a National Tutoring Programme Partner - the government's 'catch-up' scheme to help disadvantaged pupils whose education has been affected by Covid-19 school closures.

What was the challenge?

TSL needed to make the most of its tutors' time and wanted to know how to improve their performance so their involvement with learners was yielding the maximum effect. This would not only benefit the learners, but the data gathered could help the company to train and evaluate their tutors more intelligently.

Madiha Khan, a Doctoral candidate working with TSL on its research, said: "Using human adjudicators lends itself to human bias, and could only observe a small aspect of what a tutor does at different times. There were no videos of the tutors, only audio so we could only "observe" what was happening from sound recordings, and the interactive whiteboard."

How did EDUCATE help?

Madiha worked with Professor Rose Luckin, EDUCATE director and Dr Mutlu Cukurova, lecturer and assistant professor of Digital Technologies in Education at the UCL Institute of Education to analyse data about the company's online tutoring sessions. They looked for patterns of tutor behaviour and how this related to favourable learning outcomes, to explore if it was possible to identify high performing tutors by using micro level traces of learning behaviours.

From the audio recordings, they analysed a granular framework of tutoring behaviours, including how much time the tutors gave learners to respond to questions and whether they used hints to keep learners motivated and engaged. Giving hints, are known to be effective scaffolding techniques in learning. The use of pauses to allow thinking and time for pupils to respond was also one of the main observations.

What was the outcome?

"What the analysis found was that more effective tutors tended to provide hints and pause at the appropriate points more frequently," Madiha said. "More broadly, it helped us to build a holistic and granular view on what really makes an effective tutor, and in the future this could potentially inform intelligent, data-driven techniques for feeding back to tutors and evaluators".



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