Practice: interactions between teaching assistants and pupils

DISS project briefing note 4

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This briefing note summarises findings from the **Deployment and Impact of Support Staff (DISS) project** on the interactions between teaching assistants (TAs) and pupils. We use the generic term 'practice' in a pragmatic way to cover the classroom interactions of both TAs and teachers with pupils. The DISS project was the first study to record and analyse TAs' interactions with pupils and compare them with those of teachers. Here, we report the results of two complementary analyses of the classroom talk data in order to reveal quantitative and qualitative differences between the talk of TAs and teachers.

Adult-to-pupil interactions and effective teaching

Study of adult-to-pupil interactions is important because models of effective teaching, as well as a common sense view, see interactions between educator and pupil as being at the heart of the pupil's educational experience and their learning. Views vary, but it is possible to identify several features of effective teaching, such as:

- · Orientating pupils to lessons and making links to prior learning
- Checking pupil understanding when introducing new concepts
- Asking questions that require pupils to engage in higher level thinking
- Providing pupils with frequent feedback about their learning
- Ensuring pupils are motivated to learn and are not just on-task, but are cognitively engaged

The interactions teachers have with pupils have long been recognised as playing an important role in pupil learning. However, to date, very little is known about the dialogue between TAs and pupils. To address this gap, we conducted two analyses of the data on adult-to-pupil talk.

Analysis 1: instructional talk analysis

Instructional talk analysis was used to provide a general comparison of the main forms of teachers' and TAs' talk as they related to everyday, educationally-relevant interactions with pupils.

Methodology and sample

- 42 simultaneous audio-recordings were made of teacher-to-pupil and TA-to-pupil talk in the same class
- From this, 32 lesson-length recordings from English and mathematics were selected for analysis: 16 teacher talk; 16 TA talk
- Audio-recordings were transcribed and then coded using a coding frame designed to capture all interactions of teachers and TAs with pupils, and based on research from the effective teaching literature
- Unit of analysis was an 'utterance' (a segment of talk) to pupils, which was meaningful in terms of educational and linguistic form, and was frequent enough to be subjected to numerical analysis
- There were 5,226 teacher utterances and 2,295 TA utterances

Comparisons of frequencies of each code are somewhat misleading, as differences may simply reflect the fact that teachers spoke more than twice as much as TAs. To address this, comparisons are made between the percentage each type of talk occurred relative to the total number of codes for each session for each adult.

Type of interaction	Teacher		TA	
	Freq	Mean%	Freq	Mean%
Organisation of pupils	683	16	302	15
Organisation of materials	75	2	13	1
Explanation of concept	421	7	116	4
Statements as prompts	254	4	339	16
Types of questions	912	16	542	24
Response to pupil answers	541	9	222	7
Feedback on learning/task completion	275	5	84	3
Use of praise/rewards/criticism	272	5	99	4
Behaviour management: preventive	53	1	10	<1
Behaviour management: reactive	347	7	60	5
Introduction to lesson focus	69	2	2	<1
Links to prior/future learning/knowledge	130	3	23	1
Motivation/engagement: cognitive focus	409	8	63	3
Motivation/engagement: task focus	785	15	420	15
Total	5,226		2,295	

Summary of the key findings

Strict comparisons between teacher and TA practice need to be treated cautiously, as the contexts within which talk occurs were not equivalent (see briefing note 3). Yet this analysis reflects the kinds of talk pupils experience on a daily basis with teachers and TAs.

Overall, teachers were more likely to show aspects of effective teaching in their interactions with pupils, while TAs did not appear to use effective techniques for scrutinising pupil understanding nor usefully scaffold learning. We found that:

- Teachers spent more time explaining concepts than TAs, and TAs' explanations were sometimes inaccurate or confusing
- Teachers used prompts and questions to encourage pupil thinking and check understanding, while TAs more frequently supplied pupils with answers and completed tasks for pupils
- Teachers tended to use feedback to encourage learning, while TAs more often were concerned with task completion
- Teachers, more than TAs, linked the current lesson to pupil prior knowledge, and attempted to promote pupil thinking and their cognitive engagement in a task
- Teachers promoted pupil engagement and encouraged them to develop their own ideas far more often than TAs did

Analysis 2: conversation analysis

Following the publication of the DISS project, a second analysis of the data on adult-to-pupil talk was conducted. The main purpose of this analysis was to explore how teachers and TAs used language and the effects of various strategies on pupils.

Methodology and sample

- Four of the 16 pairs of transcripts used for the instructional talk analysis were selected. Lessons focused on mathematics
- Analysis used techniques of conversation analysis (CA) in order to gain detailed insights into pedagogical discourse

Summary of the key findings

The key difference between teachers' and TAs' talk to pupils, revealed via CA, was that teachers generally 'open up' the pupils, whereas TAs 'close down' the talk linguistically and cognitively.

Overall, within each lesson, teachers used at least some strategies that foster pupil independence and encourage pupils to think for themselves. TAs used closed questions to support and encourage pupils to complete written tasks. Yet there was minimal exploration of concepts, thus a valuable opportunity to make the best use of one-to-one support was missed. When pupils struggled, through error or failure to find the answer, TAs readily supplied the answer or corrected immediately.

Conclusions: differences in classroom practice

- Teachers are more focused on learning and understanding, while TAs are more focused on completing tasks
- Teachers are proactive, while TAs are in a reactive role
 Teachers 'open up' the pupils, while TAs 'close down' the talk

References: For more on Analysis 1, see Rubie-Davies, C. M. et al (2010) Enhancing learning? A comparison of teacher and teaching assistant interactions with pupils, School Effectiveness and School Improvement For more on Analysis 2, see Radford, J., Blatchford, P. and Webster, R. (in preparation) Opening up and closing down: comparing teacher and TA talk in mathematics lessons