

Primary English – how does talking help a child learn?

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The concept of children talking as part of learning is nothing new. Vygotsky's work on social constructivism (Vygotsky, 1978) empowered many teachers to ensure children used more capable others to help

them learn things through the zone of proximal development. However, since then, we have seen a large push on areas such as vocabulary acquisition, written literacy and the need to ensure children are able to transition to secondary education at

the end of their primary education – termed 'secondary ready' (Gibb, 2019) with the emphasis on reading and writing. What then for children talking with each other when the written side of literacy is being pushed so much?



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The impact of cognitive science on pupil talk

Cognitive science is a popular area for educators at the moment. Work by cognitive scientists such as Sweller (1998; 2018) have moved some key terms from the arena of psychology into educational vernacular. Terms such as cognitive load which is itself made up of intrinsic load and extraneous load. When learning, children build schematas of knowledge. New knowledge is constructed into old knowledge – a concept which is rather Piagetian in nature (Piaget, 1952). According to the theory emerging from the area of cognitive science, children need to master retrieving these schematas of knowledge easily and effortlessly before using them (Dunlosky, et al., 2013) in further learning opportunities. Hence we see the vogue for ‘retrieval exercises’ before further knowledge building activities and also interleaved retrieval (Rohrer, Decrick and Stershic, 2014) which seeks to help the children learn knowledge through recalling the knowledge at longer and longer intervals. Whilst recalling knowledge can be undertaken by teacher question and pupil talk, the growing fashion is for an exercise at the start of the lesson (sometimes called a ‘do now’) containing a series of questions for the pupils to answer alone and on paper or mini-white board.

In order to ensure pupils are learning their ideas cleanly and without extraneous load, teachers are removing extraneous pupil talk: preventing them from asking



questions during teacher talk and generally delivering the lessons with far less pupil talk overall as teacher talk becomes fashionable again.

Should we reduce pupil talk?

In understanding why pupil talk is still just as important as teacher talk there are some key concepts that need to be explored. As set out earlier, when a child is listening they are taking on board knowledge and constructing it into their pre-existing schemata. When that construction process fails they feel compelled to talk and to ask questions. Such problems could be, for example, a misconception that the child holds which has stood true until this point and then stands in juxtaposition to the knowledge being presented.

For example, a teacher might be reading a story and it could remind a pupil of another story. They might have questions about this other story or want to recount elements of the

story that they had recalled. They might have questions about stories in general which have been caused by this multi-logical thinking. Such questions can get in the way of the teacher talk about the story.

Such a process relies on the child having epistemic curiosity: a self-regulated desire to locate new knowledge to construct into their overall schemata to either learn something new/solve problems or because they need to know something having been deprived of information (Berlyne, 1954; Lowenstein, 1994; Litman and Speilberger, 2003; Litman and Jimerson, 2004). They are motivated by curiosity to locate and learn new knowledge before exploring the new schemata in conversations with their teacher and peers. With each conversation, they become more fluent in using terminology, solving problems, in applying concepts and in gathering further aspects of



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knowledge to add to their current schemata. How many times have we met pupils asking us quite profound questions about a topic – such as those questions featured in 'Does My Goldfish Know Who I Am?' (Harris, 2013) which features a range of curious questions posed by real primary children and answered by experts such as Professor Brian Cox. A teacher is faced here with a choice: to shut down the questions or to give succour to the curiosity – and the curiosity is important to encourage the child set out to seek new knowledge through self-regulation.

Such pupil talk using new knowledge and new terminology is an important aspect of learning development. Each new word is underpinned by everything a child knows and feels about that topic. Simple words, like 'happy' are uniquely contextual. From the first acquisition of the word to using it in a variety of contexts there is a developmental phase that requires experimentation between pupils as they use the word and its connected knowledge.

One thinks that one is tracing the outline of the thing's nature over and over again, and one is merely tracing round the frame through which we look at it. (Wittgenstein, 1958, p. 48)

As pupils talk so they set out their knowledge of that topic through the Wittgenstein window of their experience and knowledge. The experiences that they have at home through their parents and play are brought to the classroom.

Their perceptions and their usage of the word 'happy' and its associated knowledge are unique to them and form part of their growth as a person and their identity. Exploring self through exploratory talk is linked to knowledge construction and usage beyond the formal confines of school based formal testing – the practice of using knowledge is different from knowing knowledge.

Teachers are indeed now asking pupils to remember what they have learned previously at the start of a lesson (Rohrer, Dedrick and Stershic, 2014) as cognitive science takes a firm hold of schooling practice. However, one thing that seems to have emerged is the idea that this asking of them what they remember is undertaken through non-pupil talk methods. Retrieval through teacher talk is far less common practice. Some think that teacher talk is self-descriptive, however, as set out by

Kyriakides and Creemers (2008), teacher talk itself should involve deep questioning of the pupils. A teacher should probe pupils' answers and bring use of the knowledge into the domain, not just recall of the knowledge.

The answer lies in understanding retrieval itself. To retrieve schemata is insufficient: a well-designed retrieval activity "...requires students to choose a strategy, not only execute the strategy and students often find the choice of strategy to be more challenging than the execution." (Rohrer, Dedrick and Stershic, 2014, p1.) Thus we see that a pupil needs to not just remember things, but also have the opportunity to explore these memories. At a young primary age, some of these memories might be quite episodic. A teacher might ask pupils to recall some key features about seasons. The memories might be quite episodic



recalling key moments and within these moments some facts such as leaves falling. From there, the teacher might talk about deciduous and evergreen trees. The skill of a teacher in retrieving not just key knowledge, but to be able to frame it well with the day's learning and to generate epistemic curiosity is one that relies on lots of pupil talk which is carefully guided by the teacher.

Conclusion

Pupil talk, therefore, should not only be promoted, driven by the twin principles of epistemic curiosity and retrieval. The muting of pupil talk will not help cultivate that curiosity. Further, retrieval of knowledge alone whether through pupil talk or otherwise is insufficient. A primary teacher must understand the two



main elements of epistemic curiosity when planning their teaching: to want to know more, or to feel deprived of, knowledge. These opportunities for pupil talk and cultivating epistemic curiosity can be built into curriculum maps as much as propositional knowledge is embedded into knowledge organisers (Hirsch, 2002).

Pen Portrait

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By Gill Johnson, independent academic, published author and freelance writer; formerly Assistant Professor at the University of Nottingham and Senior Lecturer at Nottingham Trent University.

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