What’s All the Talking About?

**Theory of pupils learning**

**Zone of Proximal Development**
Vygotsky said "Teaching would be more effective if Ts were able to work in the P's ZPD".

There is evidence that peer interactions are a main facilitator factor for socio-cognitive development & their performance in Maths tasks & the school's Maths achievement.

**Teaching Style**

"Go with the Flow" - Need to focus attention on Mathematics rather than P's performance.

Improving the way in which T can use dialogue to get P involved in Maths-Thinking rather than getting correct answers.

**School environment**

It's the didactic contract that affects what both Ts & Ps expect from each other it also affects P's self esteem, their persistence when solving a task & their performance and achievement.

A classroom culture of questioning and deep thinking in which Ps learn from shared discussions with teacher & peers.

**Pupil Talk in Maths**

Need a belief that all pupils can learn more effectively if we can clear a way by sensitive handling, the obstacles of learning be they cognitive failure never diagnosed or damage to personal confidence or a combination of the two.

**Time**

- anecdote 5 secs

Authentic Questions that signal T's interest in P

Emphasising the challenge for Ps to think for themselves

T's role helps Ps to feel free to comment & not felt to be disrespected by others

Re-voicing P's response

Improve the ways that T can convey to all Ps regardless of their ability that their contributions are equally valued.

Help to engage all Ps in the class and have their solutions taken seriously.

...is privileged over talking

- anecdote "I don't know...."

Listening

Improve the way T listen to Ps in a manner that conveys there is a genuine meeting of minds showing that T is genuinely willing to change their own minds in the light of what P says

- anecdote Amy's sums

http://nrich.maths.org/6662
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Not making assumptions that they can that they cannot anecdote 47+58

Ts have often just been looking for a particular response
Ts have often lacked the flexibility or confidence to deal with the unexpected
Some lessons happen in which the object is merely to work out what answer the T expects to see or hear

Some Ps will know the power relationships resulting from T's didactic tension
Some Ps understand that the T has filtered contributions in order to address T's own pre-conceived agenda

Initiation—Response—Follow Up Some T's have responded in ways that are likely to inhibit the learning of the P

Body Language
Working on activities together T working collaboratively with P

Ps need to know how to make use of T-P & P-P talk in a learning experience Tasks work well if built into the planning, there are opportunities for Ps to communicate their evolving understanding

Pupil—Pupil talk Most talk that goes on in school is social rather than cognitive & is HELPFUL to learning rather than FUNDAMENTAL Peer interactions are powerful in themselves whether un/equal