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Pursuing respect, relatedness and powerful learning through material-dialogic teaching



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## The school and the project

- A vocational high school students 14-19 years old
- Focus on engineering and valuing apprenticeships as a destination
- 23 teachers, including the head teacher, all involved in the R&D project
- 40% of students sustained social disadvantage
- School issue identified of supporting disadvantaged students in lessons
- Lesson study action research approach to developing dialogic teaching
- Close to practice collaborative analysis with teacher researchers, seeking co-creation of contextually robust knowledge



## Respect

Living in sustained poverty includes stigma or shame and a feeling of being different and inferior... (Imogen Tyler, 2013; Crowley & Vulliamy 2002; Ridge 2002; Willow, 2002; Hooper et al, 2007)

Schools and teachers need to challenge 'deficit ideologies' ... (Ian Thompson, 2017)

Social class strongly influences opportunities, attainment and reproduction of a pattern of poverty... (Shildrick & Rucell, 2015; Reay 2017)



## Dialogic teaching

Negotiation of rules and culture to encourage classroom talk that is ‘exploratory’ so that teacher and students listen, build on people’s ideas, challenge when appropriate, solve problems and strive to reach agreement (Alexander, 2017; Mercer, 2013; Boyd, 2014)

Dialogic teaching is not merely about pleasant social interactions but aims to powerfully develop thinking and learning (Mercer, 2008; Wertsch, 2008)

Dialogic teaching embraces struggle and mistakes as opportunities for learning and seeks ‘relational equity’ (Boaler, 2008; Boyd & Ash, 2018)

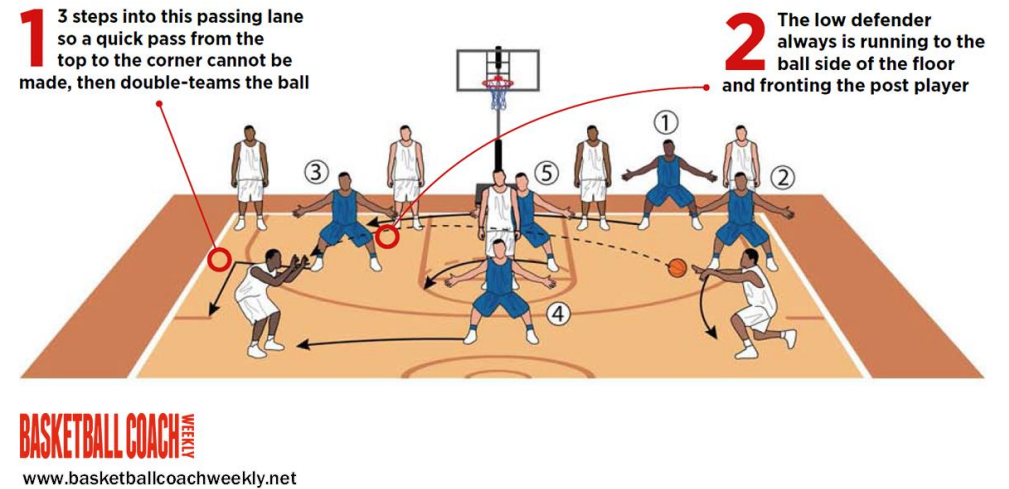
Dialogic  
teaching




‘Ping pong’ – IRF

‘Basketball’

‘Keepy Uppy’





Material -  
dialogic  
teaching

- A framework has been developed for ‘material-dialogic pedagogy’ (Taguchi & Taguchi, 2009; Hetherington & Wegerif, 2018)
- Books, learning materials, furniture and school architecture are inseparable from classroom talk: ‘understood as materialised ideas of knowledge and learning too, as well as active agents...’ (Taguchi & Taguchi, 2009: 22)
- Matter and meaning are ‘united in a single entangled reality’ (Barad, 2007) so that ‘the agency of the teacher, student and material all *come to exist* in the performance of teaching and learning’ (Hetherington & Wegerif, 2018: 30).

Dialogic  
teaching as  
'seductive  
theory'

'Dialogue' is a warm word... but teachers have expert knowledge, teaching is sometimes 'telling' and schools have to prepare students for national tests! (Lefstein, 2010)

'A teacher adopting a dialogic stance listens, leads *and* follows, responds *and* directs ...to guide students to think in elaborated and analytic ways.' (Boyd & Markarian, 2015: 273)



The research  
question

How do teenage students experience the development of dialogic teaching in relation to respect and relatedness?

## Lesson study

- Teaching team collaborative lesson planning in six different curriculum subjects
- One teacher teaches the lesson (video recorded)
- Teaching team evaluation (audio recorded)
- Video stimulated interview with one target student (audio recorded)
- Collaborative analysis with teacher researchers
- Two action research cycles ‘what is going on?’ and then ‘what if?’
- What if we use a material-dialogic teaching framework to design learning activities?

# The engineering lesson

What engineering sectors are involved in the design of a technology product?

- Starter activity using a short video clip... including a 'think, pair, share' then whole class discussion...
- Then more individual work using a computer with teacher support on designing / drawing a product...
- The classroom is set up with students working at rows of benches with computer screens and keyboards, there is limited space...
- The lesson study focused on the starter activity and discussion...

# The 10 minute discussion activity in the engineering lesson

- Included 16 short student contributions...
- 3 students gave one or two word answers, 11 gave less than ten second answers and 2 students gave slightly longer responses...
- All of the student responses, except for one occasion, came back to the teacher...
- The teacher used names well and in effect was using 'keepy uppy' in an attempt to coach the students towards 'basketball'...
- The teacher gave brief feedback and then made considerable teaching points in between many of the student contributions so that overall at best 25% of the time was student contribution or thinking time pauses...

# Teaching team evaluation of the engineering lesson

The physical layout of the room was not helpful to the discussion activity, it formed physical barriers and prevented forming a circle for discussion...

The teacher used effective questioning in attempts to stimulate discussion...

'...the basketball did not work brilliantly but that's down to the fact that they are not used to it...'

The task was 'good engineering' in terms of vocational learning but perhaps not directly related to the exam programme specification...

## The target student in the history lesson

...about yourself. Apart from school?

*I don't really do anything; I just go out... Go on my phone and go out...*

...ambitions?

*Just probably, like, getting an Apprenticeship... In Engineering? ...Yeah...*

...the other school, what was it about it?

*It was just the people I was around just, like, weren't for me, like... all the teachers [at my current school] have said like I'm like a lot calmer and like I do all my work and that. Like I'm good in lessons.*

What would help you learn?

*Well I'd just like the smaller classes so like the teachers can come round faster because it can take like half an hour for him to come round...*

## The target student about a good teacher / lesson in English

And the one that teaches well, what is it, do you think, that's good about it?

It's just like dead calm and it's like she just explains it more.

Explains it clearly? You know what you're doing?

Yeah...

And how do you know whether you're doing it right? Does she come round?

Well like she'll show you what to do on the board and she'll have like an example but you don't copy the example; you've got to like do it in your own one.

Write your own one?

Yeah...

First steps of  
thematic  
analysis

- Teachers using Ping Pong (IRF) in their classrooms may also apply this in lesson study teaching team evaluative discussions!
- Students are compliant and supportive of a wide range of classroom talk practices... they strongly value that the school is a safe space...
- In the majority of lessons there are direct links to the exam specification but interpreted by teachers and students largely as memorising facts, rather than high expectations for deeper conceptual understanding...



First steps of  
thematic  
analysis

- Teacher critical engagement with a framework such as material-dialogic teaching requires time and a cycle of enactment...
- Teacher effective adoption of lesson study requires time and coaching to become collaborative...
- A material-dialogic framework shows some promise for evaluation / analysis of classroom teaching...
- But a challenge, not fully captured by the material-dialogic framework, is task design of open problems that provoke exploratory talk within curriculum subjects that align with external examination programme specifications...

Tentative  
next steps...

- Perhaps it is possible to extend student conceptions of ‘school’ as a safe place to include the classroom?
- This may need to include raising expectations and level of challenge along with task design of open problems that focus on key concepts? (Boyd & Ash, 2018)
- A ‘growth mindset classroom’ – in which teacher and students embrace struggle and mistakes as opportunities for learning – perhaps provides a model? (Boaler, 2016: chapter 9)
- The emerging framework may need to become ‘design-material-dialogic teaching’ (Edwards, 2015)

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