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Pursuing respect, relatedness and powerful learning through dialogic teaching

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Cumbria Collaborative
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Executive Summary

How does a skilful teacher create a classroom learning environment in which students make good progress in their learning but also experience respect and a sense of belonging? This question seems particularly important for students who have experienced sustained social disadvantage because of the stigma associated, for example, with living in poverty. This interim report is based on the first action research cycle of a close to practice lesson study research project by teacher researchers at the Energy Coast University Technical College in Workington, Cumbria. Working in six small curriculum subject teams the teachers used video-based lesson study to investigate current practice and future development in relation to dialogic teaching. Dialogic teaching focuses on classroom talk and develops rules for exploratory talk through collaborative problem-solving. A target student from each lesson was interviewed and shown video clips from their lesson. Students feel safe at school and are supportive of the wide range of practice used by teachers around talk in classrooms. Teachers were able to develop the characteristics of dialogic teaching even at this early stage in the project. The analysis highlights the significance of task design as well as the role and 'voice' of materials used in the classroom. It reveals a tension between focusing on the assessment requirements of forthcoming exams and assignments whilst setting high levels of challenge and having high expectations for all students.

Introduction

This close to practice collaborative action research project investigates teacher and student perspectives on the development, through a whole school intervention, of dialogic teaching (Alexander, 2017; Mercer, 2000; 2013). This paper provides initial analysis of the first lesson study cycle by 23 teacher researchers who work within a vocational high school located within an area of North West England where heavy traditional industries have declined. The school attracts a high proportion of 14 to 19 year old students who, based on reasonably reliable proxy measures mainly related to household income, are identified as having experienced sustained social disadvantage. The school senior leadership team negotiated the focus of the research and development project with a university-based research mentor by identifying a key challenge that the school faces. The school staff were already working hard to support

those students who have experienced social disadvantage but felt that much of their current effort was outside of the classroom. The challenge they face is to extend this work in support of disadvantaged students into everyday lessons. Dialogic teaching approaches were identified as a possible way to develop experiences of 'respect' within everyday classrooms.

Respect

Living in poverty is associated with experiences of stigma and shame (Tyler, 2013) and 'challenging deficit ideologies' is a key challenge for schools in supporting engagement and achievement of students who have experienced social disadvantage (Thompson, 2017; Ridge, 2009). Schools in England have invested considerable effort in responding to the needs of disadvantaged pupils using ring-fenced 'pupil premium' funding (*****). Much of this effort has been outside the classroom, for example including mentoring schemes or support for regular school attendance. There is a growing literature on how schools might support disadvantaged students but arguably its weak point is on how to do this in the classroom. The dialogic teaching intervention is an attempt at classroom level by the school to create experiences of 'respect' and 'belonging' for all students as well as powerful learning during everyday lessons. The research question is: How do teenage students experience the development of dialogic teaching in relation to respect and relatedness?

Self-determination theory considers that three conditions are required to satisfy human needs as they seek fulfilment through completing challenges: autonomy (being in control); competence (feeling effective); and relatedness (a sense of belonging) (Deci & Ryan, 1985;). On a practical level, analysis of lesson observation or video of dialogic teaching might note a teacher offering some level of choice, providing encouraging but challenging feedback and nurturing interaction (Fried & Konza, 2013).

Dialogic Teaching

Dialogic teaching involves 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). Dialogic teaching requires teachers and students to embrace struggle and mistakes as opportunities for learning and seeks 'relational equity' (Boaler, 2008). Dialogic teaching is a sophisticated and complex approach but to explain it concisely some sporting metaphors are useful. Traditional classroom interactions may be described as 'ping-pong'. The teacher initiates the interaction with a question or instruction, the student responds and the teacher provides feedback (initiation – response – feedback IRF). Dialogic teaching means that sometimes 'basketball' is achieved within classroom discussion. The teacher might pass the ball into the group of students with one student catching it and passing it on by either building on the initial idea or challenging it or adding their own idea. The 'ball' is passed from student to student. It may sometimes come back round to the teacher but basketball is a collaborative approach to exploring the problem and developing possible solutions. If the students are not

familiar with basketball style discussion then the teacher may use a coaching technique of 'keepy uppy', like a footballer or group of footballers practicing control skills by keeping the ball up in the air. The teacher uses names and knowledge of the students to draw individuals into the discussion… 'what do you think of that Sharon?'

Although our project includes a focus on 'respect and relatedness' it is important to note that dialogic teaching is not merely about pleasant social interactions but aims to powerfully develop thinking and learning (Mercer, 2008; Wertsch, 2008). There is reasonable evidence for the impact of dialogic teaching on student attainment (Alexander, 2018). It is easy to idealize dialogue and dialogic teaching, because they seem attractive and likely to create a pleasant classroom atmosphere. However, it is important to develop an approach to teaching that is realistic in relation to the context and purposes of schooling (Lefstein, 2010). Effective dialogic teaching and learning in the classroom will always include 'acquisition' of knowledge as well as 'participation' in lessons and curriculum subjects (Sfard, ****). '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). This means that teachers are likely to use 'telling' as well as 'exploratory talk' and that 'respect' includes respect for the teacher as having expert knowledge in curriculum subjects. It means that teachers do need to prepare students for national tests and examinations, as well as having broader purposes of developing students as self-regulated lifelong learners and global citizens (Boyd, 2019). It is important not to underestimate the challenges of developing dialogic teaching, for example a study in the Czech Republic recognized teachers struggling to implement the approach and identified themes of insufficient 'rational argumentation' and 'semantic noise' due to different understanding of words under the surface of the interaction (Sedova, Salamounova & Svaricek, 2014).

It is arguable that the teacher's design and framing of a problem-solving task that engages learners with a key concept is key to the learning impact of dialogic teaching (Hofmann & Ruthven, 2018). At the level of teacher questioning this shifts beyond the difference between closed and more open questions: 'A genuine question is one that *problematizes*, i.e. that transforms commonly accepted facts or answers into problems to be explored, thereby opening knowledge up to thinking… an emphatic yet controversial statement or subversive narrative can have a more powerful questioning effect than a series of predictable utterances capped with question marks...' (Lefstein, 2010:7). This issue of task design and the role of problem-solving in promoting dialogue must be considered in relation to curriculum and assessment and accountability regimes. If the school and teacher are judged primarily by students' attainment in national tests or examinations and the curriculum content is heavy, as is the case in England in some curriculum subjects, then the system might encourage direct instruction and regular practice tests. The nature of a curriculum subject comes into question, asking for example 'is school maths about speed and calculation or about deep understanding of key concepts and being able to apply them to contextualised problems?' (Boyd & Ash, 2018).

Many studies of dialogic teaching may have focused very much on classroom talk between people and not sufficiently acknowledged the active and influential role of materials such as

textbooks or practical equipment within the dialogue (Hetherington & Wegerif, 2018). The development of 'material-dialogic pedagogy' extends the work of Mercer and Alexander and has been pursued in early years settings (Taguchi & Taguchi, 2009) and in the context of investigating science teaching using practical apparatus (Hetherington & Wegerif, 2018). In such a material-discursive pedagogy, books, learning material, furniture and school architecture are considered to be inseparable from classroom talk: 'these materials and artefacts are to be understood as materialised ideas of knowledge and learning too, as well as active agents…' (Taguchi & Taguchi, 2009, p. 22). From this material-dialogic perspective the teacher's attention shifts from exclusive focus on 'individual children's cognitive knowledge constructions or the dialogue between the children, to include the learning event taking place *in-between* the child and the material in the space and the event of learning' (Taguchi & Taguchi, 2009, p. 35). Material-dialogic pedagogy considers matter and meaning as 'united in a single entangled reality' (Barad, 2007) and views teachers and students as using materials to support their mathematical explanations. Barad develops an 'agential realism' in which knowledge and the world are materialised through material-discursive practices which in our case consist of teaching and learning in the classroom (Barad, 2007; Hetherington & Wegerif, 2018). From Barad's perspective 'the agency of the teacher, student and material all *come to exist* in the performance of teaching and learning' (Hetherington & Wegerif, 2018:30). Within this material-dialogic pedagogy, agency is enacted through material-discursive practices making 'agential cuts' that enable or constrain possibilities for learning. As a practical example in the classroom Hetherington and Wegerif consider a typical extension task in a secondary Science lesson, they suggest that 'a common default is setting book work for those who finish early. A dialogic material-discursive alternative is to allow the students to explore working with the equipment to see what happens when they configure it differently.' (Hetherington & Wegerif, 2018:40). Our study applies material-dialogic pedagogy as a theoretical framework within the thematic analysis and evaluates its usefulness in understanding the teaching of mathematics.

Methods

This paper focuses on data generated during the first of two action research cycles (Baumfield, Hall & Wall, 2013). Small teams of two or three teachers completed a cycle of lesson study focused on developing dialogic teaching (Lewis & Hurd, 2011). The 'research lesson' itself as well as the teaching team's meeting to evaluate and redesign the lesson were captured on video. Teachers aimed to 'see the lesson' through the eyes of a target student in the class who has been identified as having experienced social disadvantage. The teacher also gathered photo evidence of student work. The target student in each lesson was interviewed using a video stimulated recall interview method (Lyle, 2003) to capture their perspectives on selected clips from the lesson including some of those involving classroom talk. In this first cycle the data from 6 completed lesson study processes is captured. Each individual lesson study is treated as a case study and then a thematic analysis is used to develop cross-case analysis highlighting similarities and differences across the six lesson studies. For the cross-case analysis a hybrid thematic analysis is applied which combines inductive reasoning to code data and generate themes then a deductive reasoning approach applies codes based on the dialogic teaching framework (Braun & Clarke, 2006; Fereday et al., 2006). A framework for

material-dialogic teaching is extended to include an element of lesson structure and task design using the 'quadrant model' (Edwards, 2015). The concepts of 'respect' and 'relatedness' are also considered by drawing on classroom observation studies informed by self-determination theory (Fried & Konza, 2013). Selected transcribed clips of whole class dialogue and teacher evaluation discussions are analysed in more detail (Warwick et al., 2016). The project uses inter-coder reliability checking and works towards co-creation of knowledge by using teacher focus groups to work practically on data analysis and to respond critically to the emerging analysis developed by the research mentor. The analysis aims to provide insight into the perspectives and learning of both teachers and of students and will inform the second action research lesson study cycle.

The research design and approach gained approval through a university ethics panel scrutiny. There are ethical tensions within such a whole school project with the main risk related to the professional reputation of teachers who 'volunteer' to have a lesson captured on video and then analysed. Within their small curriculum subject teaching teams, the teachers managed lesson study data generation and decided what video data and student interview data became part of the 'research study data'. There is also some risk for the target student captured on film in each study lesson and then invited to contribute by being interviewed. The interviews were managed by the visiting research mentor to create some element of distance, but students were made aware that the interview transcript would form part of the data and be seen by teachers. Students were reminded of their right to withdraw some or all of their audio recorded data at the beginning and at the end of the interview.

Findings

A summary of the analysis of the six lessons is presented here. The lessons included the curriculum subjects of Sports Studies, Engineering, English, Mathematics, Science and History. The lessons included a range of ways to generate and facilitate classroom talk. Overall the students were tolerant of a wide range of approaches by teachers in different curriculum subjects. At this stage of the project the findings are a tentative attempt to synthesise across the research lessons focusing on differences and similarities.

Two initial findings concerning student perspectives arise from consideration across the lessons:

- Students are compliant and supportive of a wide variation in the classroom talk practices facilitated by different teachers.

- Students strongly value that the school in general is a safe space for them and that any bullying is dealt with promptly and effectively.

- This small sample of students have seemingly low levels of engagement in structured or formal activities outside of school, such as membership of youth groups or clubs. Social media and 'hanging out with friends' is the main use of leisure time reported by the students. One of the students is involved in a youth organisation and one has considerable carer responsibilities back at home. The students report having

different networks of friends, partly because they have changed secondary schools midway through to attend the vocational college and for many their current school is not in their hometown.

The generally compliant and supportive responses of the students is not surprising, given the situation of a one to one interview with the research mentor who clearly is working with the teachers. The use of stimulated recall interview was an attempt to overcome this kind of response by focusing on the immediate and detailed action captured by the video. However, the compliance may also connect to the second finding, that students generally experience the school as a safe place. Several students raised the issue of bullying as an example of how they find their current school different when compared to their previous school:

> I haven't really had any arguments or owt [anything] like that, petty arguments but I know other people have, and if anything stirs up the teachers find out and the teachers just basically get that one person and the other and then sort it because they don't want things to drag on…   (student 6 interview)

This perspective of feeling safe at school was a strong response across the student interviews which reflects well on pastoral care and the culture of the school but also seems a strong base on which to build dialogic teaching in classrooms. For these students, who have experienced social disadvantage, this was clearly a valued aspect of the school culture. The interviews also seem to highlight the students' dependence on school for their wider cultural development as well as for learning in preparation for external examinations.

Two initial findings arise mainly from teachers' evaluative discussion of research lessons:

- Despite teachers' efforts to develop dialogic teaching tasks and adopt relevant classroom strategies, it will take time, coaching and modelling for students to become familiar with the expectations and rules of dialogic teaching.
- In most lessons the teacher makes direct links to the exam specification and this seems appropriate and unsurprising due to the drive to support the vocational aspirations of the students and external pressures such as school inspection.

With the exception of the History research lesson, the focus on the exam specification perhaps tends to be interpreted by both teachers and students largely as memorising facts, rather than developing deeper conceptual understanding. This emphasis on memorisation appears to influence lesson planning, learning task design and classroom strategies adopted by teachers.

Three initial findings relate to the lesson study process and to theorisation:

- 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 fully collaborative.

- Teachers who adopt a Ping Pong (IRF) approach to classroom talk may also tend to apply this style during lesson study teaching team evaluative discussions.

Two initial findings relate to the development of the dialogic teaching framework that underpins the project:

- 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, but that also align closely with external examination programme specifications - because that is a key element of the practical requirements for teachers and students (Lefstein, 2010).

Next steps

It is important to note that this report is merely the first stage in analysis and development of the project. In particular, the teachers need an opportunity to respond and contribute to the emerging analysis which has been collated by the research mentor. When we have achieved a shared understanding of the findings of the first cycle then that can form a basis for the next cycle of lesson study.

The second cycle will be an important opportunity to strengthen the lesson study process and the associated data collection. At least four aspects of lesson study might be developed in the second cycle:

1. Collaborative lesson planning, so that shared ownership of the research lesson is more fully achieved. For data collection a written record and audio recorded discussion would strengthen the data collection and also provide the teaching team with useful criteria against which to judge the outcome of the lesson and the success of the dialogic teaching activity design.
2. In some research lessons, photographing the target student's work might provide significant additional evidence of learning for consideration by teachers during evaluative discussion and as additional data for analysis.
3. Perhaps most importantly, teachers might be able to design a dialogic learning activity that could be taught and evaluated, but then amended and taught again to another group by a different teacher. This is the full lesson study process and following it fully would maximise the learning power of the project.
4. The project has made some progress in relation to developing respect and relatedness in the classroom to strengthen the engagement of students who have experienced social disadvantage. Data generation in this element of the project has proved difficult but further development of the project, including more explicit engagement of students with the project, should provide rich data and a more convincing analysis.

Possible implications arising from the first cycle

- Perhaps, through whole school activity as well as bottom-up through developing dialogic teaching, it is possible to extend student and staff conceptions of 'school' as a safe place to include classroom? The idea of 'respect and belonging' might be further developed through assemblies and other communications with students and parents and explicitly linked to classroom talk as a foundation for the development of dialogic teaching.

- Perhaps, staff engagement during the second cycle of lesson study with theory and research on the influence of teacher expectations might be useful. For example, in the 'learning without limits' project the teaching staff agreed to ban the word 'ability' and adopt the mastery approach assumption that 'virtually all of my students can succeed'. In the ideal learning environment of 'a growth mindset classroom' Jo Boaler argues that teachers and students need to embrace struggle and mistakes as learning opportunities (2016: chapter 9). And a collaborative project with teacher researchers highlighted the significance of carefully designed contextualised problems to provoke twenty minutes of exploratory talk at the beginning of mathematics lessons (Boyd & Ash, 2018).

- The theoretical framework for dialogic teaching that is developing through the project may need to recognise more explicitly the design of the task and the role of materials as well as highlighting exploratory classroom talk. This framework might be labelled as a 'design-material-dialogic teaching' approach (Edwards, 2015; Hetherington & Wegerif, 2018). However, classroom teaching is notoriously complex, and a theoretical framework is useful as a tool for gaining understanding provided only if it does not become too complicated in itself. Aiming to refine, as an output of the project, the current two-sided handout summarising our interpretation of dialogic teaching is perhaps a sensible practical precaution to help us keep it accessible to other teachers.

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