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“No, it just didn’t work”: A teacher’s reflections on all-attainment teaching

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Setting – the practice by which learners are allocated to different classes on the basis of perceived ability – is a social justice issue. Despite overwhelming evidence that, overall, setting is educationally harmful and in discriminatory ways, the practice is almost universal in English secondary mathematics classrooms. To gain insight into this apparent contradiction, we offer the story of a single teacher’s ultimate rejection of all-attainment teaching.

Keywords: Ability grouping, equity, ability thinking.

Introduction

In this paper we begin by arguing that setting by ‘ability’ is a social justice issue. Despite overwhelming evidence that, overall, setting is educationally harmful and in discriminatory ways, the practice is almost universal in English secondary mathematics classrooms. In order to understand this apparent contradiction, we offer the story of a single teacher who, early in his teaching career, embraced all-attainment teaching¹; continued to think in fixed ability ways and therefore supposed that there should be differential teaching for different levels of ‘ability’; found himself overwhelmed by such a task; and finally abandoned all-attainment teaching because “it just didn’t work”. We conclude with a brief discussion.

Setting and ‘ability’ thinking²

English education in terms of both policy and practice currently takes for granted hereditarian assumptions; and a discourse of ability is used very widely to place children in sets for mathematics in secondary schools (Wilkinson & Penney, 2014). The belief in fixed amounts of ‘ability’ and the consequent grouping of children according to how much they are perceived to ‘have’ is taken as natural and common sense (Francis et al., 2016). The idea that ability is a given and that only some students can be high achievers discourages many students (Boaler, 2005) and communicates and reinforces damaging fixed mindset beliefs (Boaler, 2013).

In almost all instances the methods used to allocate children to sets are claimed to be objective and based solely on their prior performance. However, in practice, in English secondary schools prior attainment is found to be a relatively poor predictor of set. A wide range of social factors come into play which privileges those with greater cultural power and systematically disadvantage others

¹ We use the vocabulary of “all attainment” rather than the more common “mixed ability” to avoid endorsing so-called “ability thinking” (see, for example, Boylan & Povey, 2014).

² In this section, we draw substantially on Jackson (2017).

(Muijs & Dunne, 2010; Bartholomew, 2003; Hallam & Parsons, 2013; Ireson, Clark, & Hallam, 2002; Macqueen, 2013; Wilkinson & Penney, 2014).

Teachers' expectations of children in lower sets tend to be low and these pupils are usually offered a restricted, narrow and instrumental curriculum which further inhibits performance. They are constructed as poorly motivated, badly behaved and incapable of independent working and independent thought and therefore in need of repetitive tasks which require lots of practice (De Geest & Watson, 2004). In contrast, those in the top set are constructed as well motivated, hardworking, well behaved and capable of independent working and independent thought and are given a more demanding curriculum and much richer opportunities to succeed (Bartholomew, 2003). Thus setting and ability thinking construct that to which they claim to be responding.

While 'ability' grouping has been shown to have little consistent effect on attainment (Francis et al., 2016), it is known that it has detrimental effects in terms of personal and social outcomes (Nunes, Bryant, Sylva, & Barros, 2009). The effect of setting continues into adulthood resulting in more limited horizons and stunting life opportunities (Boaler, 2005). Thus, as Slavin (1990) argues, 'ability' grouping can be seen as an affront to basic ideas of democracy. Involved here are issues of power and culture: 'ability' grouping is not just a neutral organisational practice. Oakes, Wells, Jones, and Datnow (1997) maintain that common sense conceptions of ability and intelligence are at the heart of schooling and, in regimes where neoliberalism holds sway, the ability discourse is part of an ideological battle defining children from lower social and economic status groups as expendable (Oakes, 2005). Further, the performativity regimes (Ball, 2003; Povey, Adams, & Everley, 2016) imposed on schooling have created a climate whereby failing to conform to the common sense view of the world carries huge risks to schools and to individual teachers; and grouping children by 'ability' as measured through some form of assessment, endorsed by policy makers, is seen as risk free.

A technician approach to reform will therefore not work as it assumes resistance to changing 'ability' grouping is simply a rational choice by relatively free agents. We offer here a story of a single teacher, Jim, and his changing relationship to setting. (Pseudonyms are used throughout and some details have been changed to protect participant anonymity.) Before doing so, we consider very briefly the role of storying in the construction of knowledge.

Telling stories

We are telling this story about Jim, much of it in his own words, because we believe that stories help us understand more about the world. There is an "unavoidable moral urgency" (Clough, 2002) in stories which fits our purpose in this paper. Jerome Bruner (1986) wrote about two different kinds of knowledge: *paradigmatic knowledge* and *narrative knowledge*. Whilst the former is expressed through logical propositions, the latter is expressed through stories. He argues that it is characteristically human to think in stories and that they provide us with a way to make sense of experience. Stories imply, and attempt to lay bare, intentional states, that is, to offer insights into why we do what we do.

In constructing this story, it is, of course, our categories, concepts, constructs and so on which frame and shape the work. However, we have tried to stay as faithful as we can to Jim's own constructions, accounts and perspectives as far as we have been able to elicit and hear them. We

have also tried to offer sufficient detail to allow others to test out the trustworthiness or otherwise of the account and to judge, for example, whether the intentions suggested make sense.

Jim's story - or our story about Jim

Jim is a highly committed, very hard working teacher who has the interests of his students very much in the forefront of his thinking. On a personal level, he is open and his stance towards visitors to his school and department is always one of welcome. He has kept in touch with the university where he completed his initial teacher education and continues to work frequently and supportively with its current students. He agreed to be interviewed (with a close colleague). The interviews were recorded and transcribed. Working with the transcripts in variety of ways, we began to be compelled by Jim's story as honest, contradictory and telling about teachers' relationships to the issues of setting; we tell a version of this story below.

Jim's final teaching practice at McVee High had not been a happy one. He had clear ideas about how mathematics should be taught and wanted to create his own lessons and his own resources. He wanted the scope to try out different and novel approaches and to avoid the routine use of an indifferent textbook.

I don't know what I was expecting. I didn't really enjoy working at that school at all and I was really glad to leave. The head of department didn't like me. He didn't like my teaching ... He'd get a face on if I wanted to move the tables around, even just move them anywhere. He just wanted them where they were and if I didn't want to use a textbook he would have a face on about that as well. Like "Why are you not using that page?" – "Because I've made this instead". He didn't like that. It was *Lock Maths* and all you did was you started on page one and the scheme of work was just ... go through the book. And if you didn't go through the book, then you were an idiot apparently. But that was how it was and it was just a waste ... I didn't practice being a teacher at all. You'd practise administering "Do page 12."

Part of the way through Jim's initial teacher education course, his tutor, Barry, left in order to take up the post of head of mathematics at Broadbent School. Broadbent serves a large, white working class, social housing estate in an ex-industrial town with overall attainment below the national average. The mathematics department had had a chequered past and when Barry was appointed there were vacancies in the department. Barry and Jim kept in touch and Barry approached Jim to ask him to come and have a look round the school with a view to starting his teaching career there. After the visit Jim was offered a post at Broadbent School as a newly qualified teacher and accepted the offer.

I didn't want to work in a posh school. I didn't want to do that ... Like Our Lady's where the kids are all little robots. I didn't want to work there. I wanted to work in a bit more challenging area and I already knew Barry as well ... I'd always said that I would start my career in a more challenging school and probably end in an easier school because I just wouldn't have the energy...

Broadbent offered Jim six week's work in the second half of the summer term preceding his permanent appointment in September so he could get to know the school and the pupils a little. It is clear that Jim was already confident about his mathematics teaching and keen to begin practising.

It was intended I think that we were supposed to come and like just have a look about and observe and stuff, but I couldn't do that in the end because I was spending most of my time with a woman called Marion, who'd got a full-time maths timetable but she had no real maths qualification at all. She was an art teacher and I was just watching her teach all these lessons and just thought "I can't really let her do it because she's doing it wrong." So I just ended up teaching for six weeks ... I just said "I'll do them for you and you can go and do something else." ... She couldn't teach them. She was just teaching them drawing. They were drawing things and she would let them sit there and do nothing while she would like paint portraits of them and I was like no, we can't be having that.

Jim had wanted to be a secondary mathematics teacher for longer than he could remember and he looked inward to his own thoughts and backwards to his own experiences as a school pupil to frame and understand his practice. For him, Broadbent offered the freedom to develop in his own way as a practitioner, a freedom he highly valued, and one which was "quite liberating actually".

I didn't enjoy going to university at all. I didn't even want to do anything there. I just hated the whole experience. And I didn't like going to college, didn't like doing my [school exams]. I just wanted to be a maths teacher and I just wanted to get there, so it was quite nice to get there and have your own classroom and then actually start teaching. I'd wanted to be a maths teacher since I was [a child]. So everything just seemed like in the way of trying to get there ...

Thus, Jim did not respond to and make use of the mathematics education approaches and understandings offered to him by his university tutors during his initial teacher education. At a slightly later date, when offered a professional development opportunity linked to a local university, he asserted with confidence that he had "never read a book". This seemed important to him in constructing his way of describing himself in the world.

He had a complex and contradictory relationship to his school experiences of mathematics.

All my maths teachers had been rubbish. Every last one ... I wasn't really taught maths because I always followed the ... [resource based] scheme of work ... never did a teacher really stand at the front and say "This is how you do this."

Despite this, Jim had kept all his mathematics books from school "because I knew I was going to be a teacher" and he remembered working together as a whole class on investigations, material which he was continuing to use at Broadbent. Not only that, at school he had "just really enjoyed maths and always have". In the context of this paper, two things stand out about Jim's account of his school experiences. First, he had been taught in all-attainment groups using an individualised scheme and, despite his assertion that all his teachers were "rubbish", he said that "everybody did well because you had appropriate tasks". This "completely differentiated" approach seemed fundamentally to inform his thinking about all-attainment teaching. Second, he spoke about himself as having a fixed level of mathematical ability and he linked his understanding of his own competence as a mathematician entirely to external markers.

I've never been like really good at it, but I just really enjoy doing it. I mean I only got a level 5 in my primary school SATs and I got a level 7 in my secondary school SATs and I got a B at GCSE. I got an E at A Level ...³

This was echoed in the way Jim talked about the Broadbent pupils. Throughout the interview, the pupils were referred to by Jim in a variety of ways all of which seemed predicated on fixed ability thinking: “lower foundation type students”; “the very brightest students”; “ten kids that should definitely do high maths”; “their [SES] data ... regardless of social context that is the grade they should get based on [results from primary school] ... regardless of whether their mum’s on drugs or they’re on free school meals”.

Coinciding with Jim’s arrival at Broadbent, Barry introduced all-attainment teaching for the first year classes.

We all knew what Barry was about ... it’s not like he kind of hides it under a bushel. He would say in meetings what was his kind of pedagogy and what he wanted to achieve.

But this claim seems to have related to using a more open and problem-solving approach rather than providing any sort of challenge to fixed ability thinking. Barry prepared packs of materials which were full of ideas that offered a more investigatory approach than the one with which the teachers were familiar organised around broad topics. When asked for an example, Jim said

... the first half term ... you would do a unit on triangles and you’d do a unit on cubes ... and you could do them in whichever order you wanted to. [But] you didn’t have to use any of it. You could use none of it, some of it, all of it, your own stuff ... Some of the resources I didn’t like so I didn’t use them ... [I used] a combination. We had textbooks, so sometimes I’d use those, sometimes I’d make my own and sometimes they’d do it off the board and sometimes ... just find something on the internet and re-purpose something if you like.

Towards the end of the year, Barry asked his department if they would like to continue working in this way with the pupils during the following school year, thus extending his all-attainment project into the first two years of the school.

Did we want to continue the kind of thematic approach? Did we want to continue the mixed ability approach? And we all said yes. We enjoyed it. We enjoyed doing it, so we said yeah.

However, for Jim, teaching all-attainment groups was synonymous with providing differentiated materials. On occasions he was able to make this work effectively for him and his class:

If you really wanted to differentiate, particularly when we used to teach mixed ability and we were doing fractions ... I just had the [levels of difficulty] on the board and they would just pick whichever one they wanted ... most people just try and go for the one that’s quite challenging. Some of them knew that there was no point in trying the level 8 one because they were a level 4

³ These are all public examinations in the English school system. The curriculum and the associated SATs were structured into levels. Jim’s results are mostly above average but not excellent. The final school leaving mathematics grade is lower than average for those who take the examination.

kid or something, but they didn't go for the easy option. They went for an appropriate level one and I think they quite enjoyed it. They liked it ... and I think they liked having the choice as well.

But overall the task of trying to provide differentiated materials across the attainment range, rather than adopting a fundamental pedagogy for attainment for all, proved overwhelming and undoable.

My experience of [the second year groups] was at that point the difference between the highest and the lowest had increased dramatically and it was becoming a strain ... They'd all made progress, but the higher ones had made more progress and so I was having to differentiate more and then do the same for my new first years ... it was becoming very fraught and time consuming and I wasn't doing it as good as I could have... No, I wasn't teaching as well as I should have been teaching because I was spending too much time doing too much differentiation ... I just couldn't do it effectively ... there was just so much planning and I was kind of making do I think.

Jim did not give up easily and shortly afterwards when Barry had moved on and Jim was given responsibility for the department, he even extended the all-attainment teaching to a third year. However, and unsurprisingly, this did not last.

The kids bottomed out, teachers were over stressed, over worked. I don't understand why I did it in the first place ... I mean I can look back now and think "You stupid idiot!" I obviously already knew that it was really difficult to differentiate across two different year groups and it was a lot of planning, so I don't understand why I did it.

It is interesting to follow how Jim justified and explained the policy reversal when looking back several years later. The initial cohort of students who had had two years of all-attainment teaching – and experienced all the initial commitment and enthusiasm – had done remarkably well in both the high stakes, external tests they took, one at the end of their third year and one at the end of their fifth. The following year group was a much more challenging cohort and were problematic throughout the school. But the difficulties Jim and the department experienced were not seen in this light. Rather, they became the basis for a rejection of an all-attainment approach. And we see again the role that all-attainment teaching as individual differentiation played in making life impossible.

It just didn't work. The kids weren't getting the grades or the marks or the levels, whatever, and behaviour was awful. No, it just didn't work ... you could physically see that there was more stress on teachers' faces because not only were you having to deal with challenging behaviour, but you were trying to deal with trying to get X to get a level 8 and Y to try and count up to 5 in the same class and it was too hard. It was too hard and it didn't work. It failed. Everybody was more than happy [to go back to setting] ... The year after we taught just setted by ability and they got much higher results.

Jim is now firmly of the opinion that, at least in a school like Broadbent, there is no place for all-attainment teaching:

I would just set them. I'm definitely now not a mixed ability fan in a challenging school. It's just too much.

Discussion

Our aims in this paper are modest. We do not expect stories like this to have any traction with policy makers and we very much welcome alternative approaches that may have the “requisite symbolic power” (Francis et al., 2016, p. 13) to do so. Here our purposes are rather different. Our intention has been to tell a story of a single teacher which illustrates how “powerful discursive productions of the ‘obvious’, ‘real’, and ‘natural’” (Francis et al., 2016, p. 10) work in practice to shape this teacher’s thinking about ability. Jim is striving to make sense within this discursive framework. He conceives the pupils as simply *being* such and such a level *person* in mathematics and so inherently needing a differentiated approach to learning: the pupil’s essence determines within fairly narrow limits what she or he can do. With such a view, offering a more open curriculum in which the unpredictable is expected makes no sense and the task of all attainment teaching becomes simply unmanageable: Jim is led to validate practices with respect to pupil grouping that reinforce inequalities despite the honourable intentions to do otherwise.

If fixed hierarchies exist - of who can understand and achieve what in mathematics - and there is a predicted and predictable limit to what can be expected from any particular individual, as current policy technologies insist, then the possibility of creating a pedagogy where all can succeed, and where success is attributed to the learning community rather than to individuals, is precluded:

the production of hierarchies of ability via a discourse of ‘natural order’ acts as a technology of privilege, and renders alternative accounts (including research evidence) unintelligible. (Francis et al., 2016, p. 12)

Knowledge, discursive practices and both deep and espoused beliefs all interact in complex and layered ways in shaping how we think and what we do. A two-fold argument follows from Jim’s story. First, changing practice alone is unlikely to engender ways of being in the world that challenge established ‘natural’ hierarchies. Second, there is a need for research-informed, counter-hegemonic knowledge and understandings to be foregrounded, alongside curriculum innovation and the re-imagining of pedagogy, if the dominant and unjust practices of grouping by ‘ability’ are to be effectively countered in the countries in which they currently prevail.

References

- Ball, S. J. (2003). The teacher’s soul and the terrors of performativity. *Journal of Education Policy*, 18(2), 215–228.
- Bartholomew, H. (2003). Ability grouping and the construction of different types of learner in mathematics classrooms. In *Proceedings of the 26th Annual Conference of MERGA, Geelong, Australia* (pp. 128–135).
- Boaler, J. (2005). The “psychological prisons” from which they never escaped: The role of ability grouping in reproducing social class inequalities. *FORUM*, 47(2), 135–144.
- Boaler, J. (2013). Ability and mathematics: The mindset revolution that is reshaping education. *FORUM*, 55(1), 143–152.
- Boylan, M., & Povey, H. (2014). Ability thinking. In H. Mendick & D. Leslie (Eds.), *Debates in mathematics education* (pp. 7–16). London: Routledge

- Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard UP.
- Clough, P. (2002). *Narratives and fiction in educational research*. Buckingham: Open UP.
- De Geest, E., & Watson, A. (2004). Instilling thinking. *Mathematics Teaching*, 187, 41–44.
- Francis, B., Archer, L., Hodgen, J., Pepper, D., Taylor, B., & Travers, M. (2016). Exploring the relative lack of impact of research on ‘ability grouping’ in England: A discourse analytic account. *Cambridge Journal of Education*, 47(1), 1–17.
- Hallam, S., & Parsons, S. (2013). Prevalence of streaming in UK primary schools: Evidence from the millennium cohort study. *British Educational Research Journal*, 39(3), 514–544.
- Ireson, J., Clark, H., & Hallam, S. (2002). Constructing ability groups in the secondary school: Issues in practice. *School Leadership & Management*, 22(2), 163–176.
- Jackson, C. (2017, February). *Social class and ‘ability’ grouping in mathematics in English secondary schools: A review*. Paper presented at the 10th Congress of European Research in Mathematics Education. Dublin, Ireland.
- Macqueen, S. E. (2013). Grouping for inequity. *International Journal of Inclusive Education*, 17(3), 295–309.
- Muijs, D., & Dunne, M. (2010). Setting by ability – or is it?: A quantitative study of determinants of set placement in English secondary schools. *Educational Research*, 52(4), 391–407.
- Nunes, T., Bryant, P., Sylva, K., & Barros, R. (2009). *Development of maths capabilities and confidence in primary school*. London: DCFS.
- Oakes, J. (2005). *Keeping track: How schools structure inequality*. New Haven, CT: Yale UP.
- Oakes, J., Wells, A. S., Jones, M., & Datnow, A. (1997). Detracking: The social construction of ability, cultural politics, and resistance to reform. *Teachers College Record*, 98(3), 482–510.
- Povey, H., Adams, G., & Everley, R. (2016, July). “*Its influence taints all*”: *Mathematics teachers resisting performativity through engagement with the past*. Paper presented at 13th International Congress on Mathematical Education. Hamburg, Germany.
- Slavin, R. E. (1990). Achievement effects of ability grouping in secondary schools: A best-evidence synthesis. *Review of Educational Research*, 60(3), 471–499.
- Wilkinson, S. D., & Penney, D. (2014). The effects of setting on classroom teaching and student learning in mainstream mathematics, English and science lessons: A critical review of the literature in England. *Educational Review*, 66(4), 411–427.