EXPERIENCING A CHANGE TO ABILITY GROUPING IN MATHEMATICS

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This paper reports on the experiences of children, teachers and parents at one school of a change in the way that children were grouped for their lessons. Mathematics was central in the decision to make this change. The change itself, and the discourse that produced the perception of a need for it, is visible in the way people talk about themselves, each other, and the business of education.

INTRODUCTION

This paper draws on research in a school in which parents are very much involved in all aspects of strategy and policy. When the school was established, mixed ability grouping was central to its organisation. Just over a year ago the school moved to a system where Year 7 became streamed: children now worked in groups that were seen as fairly homogeneous in terms of ability. The grouping system was described as follows: one 'Accelerated' group, two 'Accelerating' groups, four 'Standard' groups, and one 'Nurture' group. The main criterion for grouping students was average level of attainment across subjects of the National Curriculum[i].

The choice to move from mixed ability to streaming was taken by senior managers at the school who stressed it had been constrained by real and practical considerations over which the school had no control. This decision was based on their observation and monitoring, consultation with teachers, and perception of the views of parents. Parents had made no direct request for this change in grouping, or to opt for the particular choice of streaming, but, this school, like most schools in England, is engaged in a struggle within a discourse of performativity (Ball 2008), and there was a clear perception of pressure - from parents, from Ofsted[ii], from government

The powerful discourses at work here serve not only to frame discussion, but also to shape the identities of the people involved. The naming of these ability groups is an indicator of one of these, suggesting a language for describing education framed in terms of pace and hierarchy, rules that Bernstein (2004) argues apply in any pedagogic context. Indeed, in their discussion with me, most parents, teachers and children either could not, or did not speak of each other without evoking some image of speeding through the business of schooling.

ETHICS, LIMITATIONS AND FOCUS

I should be clear about what is the focus of this paper and what is not. The focus is not the school or what might be seen as its particular and distinctive features, or the process of choosing to move from mixed ability to streaming for Y7, which, from here on, I will call the 'choice'.

Whatever the circumstances of the school, here were a set of people experiencing changes in their lives that have resulted from the 'choice'. In this paper I focus on some of the Y7 children and what impact the 'choice' appeared to be having on their lives: how they experience school, how they see themselves as learners (and learners of mathematics), how they are seen by others. I seek to contextualise their experiences through the parallel, though less detailed, exploration of the experiences of some teachers and parents. The 'choice' is present, in some sense, as a constraint that has shaped both people's experiences (of school, of education, of themselves in these contexts), and as a lens that has shaped my perspective and that of interviewees as we have probed these experiences.

Ethical considerations constrain my selection of data from the mass of interview transcripts. This leads me, inevitably, to selection and editorialising, but then such selection and editorialising is ever present in any kind of study, and in particular in any socio-cultural study: the fact of my 'editorialising' needs very much to be kept in mind as this paper is read. I talked about my editorialising with all participants as we worked together to make our texts: I would have to make choices, in some cases because of my own agenda, in others because of my perception of the agreed ethical constraints upon the research activity. I explore 'editorialising' further in the section on methodology.

THEORETICAL PERSPECTIVE

Mathematics has figured prominently in much of the research literature on ability grouping. Of the departments at the school, the mathematics department found mixed ability most problematic, and, as might be expected, mathematics figured prominently in the accounts of those involved. Here I use these accounts to map the part that mathematics (or conceptions of mathematics and its importance) in particular and wider experiences of schooling, mediated by a range of artefacts, has played both in experiences of the 'choice', and, more generally, in the lives of some of the parents, teachers and children involved.

Here I am using notions of identity worked out in recent writing, but also influenced by Gee (2000).

> 'Being recognized as a certain "kind of person," in a given context, is what [Gee] mean[s] ... by "identity." In this sense of the term, all people have multiple identities connected not to their "internal states" but to their performances in society.' (p. 99)

I continue to make use of a view of 'identity' as the aggregation of the smaller 'becomings' (or identities) identified with a learner's participation in a multiplicity of communities of practice, local and not so local, some of which are locatable within school classrooms and most not (Winbourne and Watson, 1998; Lave & Wenger, 1991). Holland et al (2001) point out that 'Identities become important outcomes of participation in communities of practice in ways analogous to our notion that identities are formed in the process of participating in activities organized by figured

worlds.' (Holland, Skinner, Lachicotte, and Cain 2001, p. 57), and I make use of figured worlds, too, where I think this is helpful.

Here I set out to provide a sense of the communities of practice, seen as a problematic notion, and the broader institution that both contextualise the activity of children, their parents and their teachers, and constitute and are constituted by aspects of their developing identities.

EXPERIENCES OF ABILITY GROUPING

This section serves partly as a brief, selective review of some of the literature on ability grouping, but mainly as the start of the presentation of the study. I talked with two parents[iii], three teachers[iv], one deputy head teacher, the head teacher, and five children[v]. Some of these people wanted to talk about evidence for and against ability grouping in their conversations with me, in some cases, quite reasonably, wanting to know where I stood.

Extract from interview with Martine, whose son is in an 'accelerated' group:

Martine [not her real name]:   What do you think, as an adult person as to ability groups?

Peter: I think that these things are a product of particular ways of thinking about schools and teaching and learning; they're kind of an inevitable product of ways that we understand schools. ....There's quite a lot of work that's been done looking at the effects of various types of grouping and there's not a lot of evidence in favour of ability grouping really. There's some; there's a lot of research done, but the evidence is not clear-cut.[vi']

Extract from interview with Clare whose daughter is in an 'accelerating' group:

Clare [not her real name]:   last week I actually went to see the head about a number of things, which included talking about how the children were being taught. The night before I went, I talked with [my daughter], it was kind of the first time I had talked to [her] about it really, and she was actually saying that she actually preferred it the way it was before. She said that her and two other girls are like the top of the class, which is quite unusual, because [my daughter] and these two girls aren't actually that bright, really. What she seemed to be saying was, in essence, that it wasn't very motivating because there wasn't any kids above them. And she said when they were in the mixed ability groups – this is obviously a 12 year-old – but, when they were in the mixed ability groups she felt more inclined to help the ones that were struggling and she doesn't now.]

Peter   (continues): My own view is that it's very much a product of particular ways of looking at school. If we have to look at school, in terms, perhaps quite rightly, of results, then this may seem like what you have to do. But

> there's also evidence ... that if you look at school in other ways[vii], like in terms of democratic participation, then the results also come…

Clare had used the internet to read up on some of the evidence herself. She had used the DCSF site and searched under streaming.

> Clare: There was a research study on there, but there wasn't much there ... and that study said what you've said, that streaming wasn't necessarily indicative of good results, and it was all a bit inconclusive actually.

I am not sure what research Clare had looked at. However, materials prepared for Ruth Kelly, when she was Secretary of State for Education, and which were used as background for a speech she gave in 2006, suggest the extent to which grouping by 'ability' is central to official discourse, in spite of the lack – well known to her department - of supporting research evidence (DCSF, 2006).

METHODOLOGY

In this study I wanted to see how what could be thought and said about schools is framed and constrained by current educational discourse. I wanted to get some insights into some of the possibilities for being and becoming, glimpses of the formation of discourse identities (Gee 2000), that might be afforded by talking with people about the changes in practice that have attended the 'choice'.

I felt that some insights of this kind might be possible through inviting interviewees - teachers and parents mainly, but children to the extent that this might be possible - to entertain the possibility of the world of education being other than it is; in particular, how might this world look were we to believe that, rather than re-group children into 'ability' groups, we should establish groups that were as diverse and as heterogeneous as possible.

Processes of text negotiation and editorialising were central to my way of working and made explicit to interviewees from the start. I used a process of text negotiation, similar to those I have used with colleagues in recent research (Wilson, Winbourne, and Tomlin 2008), and about which I have written more explicitly elsewhere (Winbourne, 2007). My aim was to enable participants to feel that their voices would be heard legitimately in this text and to secure greater validity. All the teachers and children I spoke to said that they trusted me to choose which of their texts to include.

The following exchange, during the second interview with the five children, exemplifies the text negotiation process:

> Peter.   You see, …when I was talking to Eugene, Chris and Aaliyah, I asked this question, 'Have people in this school had problems?' and Chris said, 'Yes, people in the lower group'[viii]. If, in what I write, I just put that, what are people going to think, if that's the only bit I wrote about …?
>
> Eugene: That it's a bit boring…
>
> Chris: That I'm in it. That I am in the lower group, cos I'm not.

Eugene: But that's why we changed our names, cos they don't know that you're Chris.

Peter: That's entirely my point: if that's what I write, Chris said that they might think that he was in the lower group...

Chris: I didn't just say that, I also said that sometimes people are kind of bad, yeah, but when they're in their class they're proper smart...their friends might think they're neeky cos they're smart in class.

In the example I have just given, as the children discuss the text, they speak of each other in terms of how others would see and speak about them; they reveal some aspects of their sense of who they are: within some of the practices that intersect at the school and the figured worlds which are the spaces for their development of self. Below I present more texts that I have assembled through my coding[ix] process, aiming to represent aspects of children's experiences of the 'choice', looking for further signs of how they see themselves, how their identities are produced in practice and in discourse. I use extracts from interviews with teachers and parents to provide a sense of the broader institution and community. In my selection I have been guided by the need to show the position that mathematics might have in all of this.

TEXTS AND CONTEXTS

Being standard, accelerating and accelerated

Aaliyah's world is one where being seen as high achieving is important; Eugene makes clear it is important for him too:

Aaliyah [accelerating group]:   I am not the highest, I am the one underneath it, but I am at the top of my... I am going to move up into the highest one here...

Eugene [standard group]:   Yeah, I want to move up into another class...

Aaliyah: ...I am going into the highest, yeah, all the teachers are telling me that I am on my way.

The 'choice' may not have changed Aaliyah's ambition or view of herself, but it has afforded her new ways of talking about herself, clearly framed in terms of hierarchy and with a sense of movement and pace. Her omission of 'in' ('I am not the highest') may be due to her way of speaking, but it is striking in this context. Kwame makes similar omissions and very clear reference to pace and speed:

Peter: when there was that broader mix in class, were people expected to help each other?

Hera [accelerating group]:   Yeah.

Kwame [accelerating group]:   Yes. But sometimes it slowed down the learning. If, let's say in maths there's something called accelerating, accelerated and standard, yeah, and if some people are standard, accelerating and accelerated, and the teacher would have to explain all of them, so we

wouldn't get that much work, but, if, now, you're in the highest group for maths, accelerated, they don't have to go through all the accelerating, accelerated and standard a same thing (for all of these groups). It makes more time to learn…

Kwame used the names of the groups as identifiers for himself and other children; he seemed to think (and he was right) that these names were used only in mathematics.

Being Gifted and Talented

Probing to see if children in the school were generally happier now - after the 'choice' – elicited responses like this:

Chris [standard group]: We would always have jokes with teachers. Now we're an ordinary class.

Aaliyah: My class is totally different. More people…. I feel proud of myself because I am in the second to highest group. We all kind of know that we are gifted and talented and can produce excellent work.

Being identified as 'gifted and talented' is important to Aaliyah, but the new grouping highlights some confusion. Not long before, a trip to Sussex had been organised for children identified as gifted and talented:

Eugene: I would like to go to Sussex..

Peter: Do you know who the children are who are Gifted and Talented and on that trip..?

Eugene: I know most of the people who are going to Sussex.

Peter: Which groups are they now in [after the 'choice']?

Eugene: Some of them's in my class...

Aaliyah: ..most of them are in the top set and my set

Eugene: ...some of them, two are in my class, I know, yeah, cos [boy] was going to Wales, but he didn't want to go Wales, so [other boy] is going in my class.

Peter: So, he's in your class [, Eugene,] and he's gifted and talented; how does that work?

Aaliyah: I don't understand that bit. There must be gifted and talenteds in all different sets; but obviously he's a gifted and talented for his level; but maybe he's a gifted and talented for his level, but he can't face the gifted and talented at my level, I don't know, I don't know.

Kwame's Friend: the all-rounder

I didn't meet Kwame's friend, Darrell [name changed by me], but he 'turned up' first in conversation with the children and was subsequently 'identified' for me by Brett, the head of mathematics. He appeared, I think, both as Kwame's true friend and as a character in the children's figured world; his combination of respect on the street and

recognised academic 'ability' – enhanced as a result of the 'choice' - captures, I think, some of the essence of that world.

In the first interview, Kwame said:

> I don't miss all the people in my old class…just that people do miss their old friends from their old class. If my friend (Darrell).. if my friend was still in my class, yeah, …

And later, in the same interview:

Kwame: Sometimes, yeah, in my (maths) group, yeah, there was five people went to a different classroom, like to do higher stuff sometimes, to do extra maths. Four of them..are in my class...but, my friend, Darrell, I think he got like, I don't know, I think he got 4-4-5[x] or 5-4-5 , as well, then he improved, but I don't know why he's not in my class.

Darrell 'turned up' again on the morning of the children's second interview:

Chris: Some people didn't expect some people to be in the like the group that they're in, like the higher group that they're in…

Kwame: Like some person, loads of people thought he wasn't that smart, cos how he acts outside of classes, ..people think that he's not all that smart…

Aaliyah: I think we're all talking about the same person..

Peter: How, why are they changing their view of him now..?

Chris: Cos people see what class he's in..

Aaliyah: He can get even more respect now…that's showing that he's like an all-rounder..

Later that morning, Brett was reading some of my notes from our first interview. I had drawn his attention to what he had said about the 'few children (seven) for whom the change had really not worked and mixed ability would be better, but most are happier and feel like they're learning which is important. Those seven were happy and were working in a pocket of children including brighter children and were being brought along quite well.'

Brett (reading on from my notes): 'One was the brightest, and is now in a competitive environment in his new group. It turns out to be Kwame's best friend, who is now in second group (and has said he missed. – see K's text.)'

Brett also reads the comment I have added where I draw attention to what Kwame had said about Darrell and asks, 'What's that?'

Peter: Oh, about, cos one of the things that Kwame said was that one of the brightest boys, in fact it's Darrell, is in this different group..

Brett: Initially he was going to be in one of the standard groups – this is why I feel like we've got the groups really right actually – Initially he was going to be in one of the standard groups and he's got the highest CATs and I thought he was going to die in there. I used quite strong language, like that, because I think it is like killing a kid.

WHAT ELSE COULD SCHOOL LOOK LIKE?

The world of the school is, indeed, such that the 'choice' may better be seen as an inevitable product of the powerful discourses to which I referred above. These discourses extend to the children's homes where they also powerfully shape identities (Hughes and Greenhough, 2008). In some sense children 'bring' these identities with them to school (Winbourne, 2008). Discussion with Martine provided some insight into the constraints upon such shaping of identity.

Peter: To think out of the box a bit, imagine, perhaps…what might be different about [school] if, rather than thinking, oh yes, …we must put people of the same ability together, we were to think the opposite: which is to say we <u>must</u> have a range of abilities in each group?

Martine: Well, what level do you teach at?

Peter: I was just thinking what the school would look like if that's how you felt you needed to respond to it, do you know what I mean? …what would school be about?

Martine: Oh, I don't know.… If children have the ability, it makes no difference…

Peter: Yes, I suppose, what I was saying is, if it were the reverse, you know, somehow because of the way school would be in this different world, as it were, we would feel, yes, we have to mix the groups up..

Martine: I think yes perhaps….What, are you talking in ability?

In our conversation, I found that Martine and I could not talk of school as other than structured through 'ability'. Brett and I were able to do so. In response to similar questioning, Brett offered a vision of school: ….

…that dealt with first, maybe, learning how to learn - with actual learning that was measurable secondary to that, still assessable, but later on. Not speeding through stages of development, setting up structures. Involving children in how to learn.

This is a vision strongly supported by Boaler's research (2008 and forthcoming). It is also a vision which Brett shares with his colleagues and which, in their conversations with me, is seen as out of reach. Were it to have been realised in these children's experiences they might have spoken very differently about themselves and appeared differently in this paper.

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[i] 'Accelerated' group – average level 5b; Accelerating' groups – average Level 4b; 'Standard' groups – average level 3b; 'Nurture' group - N's or B's in English.

[ii] Office for Standards in Education

[iii] I spoke with parents by phone; I did not interview their children. Interviews with staff were one-to-one. For the first interviews with the children I spoke with Aaliyah, Chris and Eugene together, and then with Hera and Kwame together; for the second I spoke with the five children together.

[iv] Brett, Head of Mathematics; Juliet, Head of English; Sophie, teacher of PE and mathematics.

[v] The children and the teachers decided the names by which they would be known in the text.

[vi] I was thinking here of reviews such as those of Sukhnandan and Lee (1998), University of Brighton (2005), and Ireson, J. & Hallam, S. (1999).

[vii] Here I was thinking of Boaler (2008)

[viii] At this time, we were all looking at the transcripts of the first interviews from two weeks before.

[ix] I transcribed the recordings of interviews and coded them using TAMSAnalyzer (http://tamsys.sourceforge.net/) and open coding.

[x] These three numbers are the National Curriculum levels that Kwame thinks Darrell reached in the tests they all took at the end of their Primary schooling.