DOI:
10.1002/berj.3321

Document Version
Peer reviewed version

The symbolic violence of setting: A Bourdieusian analysis of mixed methods data on secondary students' views about setting

Journal:	*British Educational Research Journal*
Manuscript ID	CBER-2017-0104.R2
Manuscript Type:	Original Paper
Keywords:	Setting, Bourdieu, Inequality
Abstract:	'Setting' is a widespread practice in the UK, despite little evidence of its efficacy and substantial evidence of its detrimental impact on those allocated to the lowest sets. Taking a Bourdieusian approach, we propose that setting can be understood as a practice through which the social and cultural reproduction of dominant power relations of privilege and subordination is enacted within schools. Drawing on survey data from 12,178 Year 7 (age 11/12) students and discussion groups and individual interviews with 33 students, conducted as part of a wider project on secondary school grouping practices, we examine the views of students who experience setting, exploring the extent to which the legitimacy of the practice is accepted or challenged, focusing on students' negative views about setting. Analyses show that privileged students (middle-class, white) were most likely to be in top sets whereas working-class and Black students were more likely to be in bottom sets. Students in the lowest sets (and boys, Black students and those in receipt of free school meals) were the most likely to express negative views of setting and to question the legitimacy and 'fairness' of setting as a practice, whereas top set students defended the legitimacy of setting and set allocations as 'natural' and 'deserved'. The paper argues that setting is incompatible with social justice approaches to education and calls for the foregrounding of the views of those who are disadvantaged by the practice as a tool for challenging the doxa of setting.

The symbolic violence of setting: A Bourdieusian analysis of mixed methods data on secondary students' views about setting

Abstract

'Setting' is a widespread practice in the UK, despite little evidence of its efficacy and substantial evidence of its detrimental impact on those allocated to the lowest sets. Taking a Bourdieusian approach, we propose that setting can be understood as a practice through which the social and cultural reproduction of dominant power relations ~~of privilege and subordination~~ is enacted within schools. Drawing on survey data from 12,178 Year 7 (age 11/12) students and discussion groups and individual interviews with 33 students, conducted as part of a wider project on secondary school grouping practices, we examine the views of students who experience setting, exploring the extent to which the legitimacy of the practice is accepted or challenged, focusing on students' negative views about setting. Analyses show that privileged students (middle-class, white) were most likely to be in top sets whereas working-class and Black students were more likely to be in bottom sets. Students in the lowest sets (and boys, Black students and those in receipt of free school meals) were the most likely to express negative views of setting and to question the legitimacy and 'fairness' of setting as a practice, whereas top set students defended the legitimacy of setting and set allocations as 'natural' and 'deserved'. The paper argues that setting is incompatible with social justice approaches to education and calls for the foregrounding of the views of those who are disadvantaged by the practice as a tool for challenging the *doxa* of setting.

Introduction: The counter-evidential popularity of setting/ tracking

The majority of secondary schools in England set – that is, group students for learning in core subjects according to some sort of measure of prior attainment (Author 2 et al., 2016; Dunne et al., 2007; Ireson & Hallam 2001; Kutnick et al., 2005). For instance, Stewart (2013)

discusses how despite the brief popularity of mixed attainment teaching in the 1960s, setting has always been common, but has recently been overwhelmingly adopted by secondary schools and championed by successive government administrations (e.g. Excellent in Schools White Paper, 1997; Green Paper 2007). While it is particularly prevalent within secondary schools, Hallam (2012) also reports evidence of the frequent and increasing use of setting in primary schools. There seems to be no abatement in the popularity of setting, with the Department for Education (DfE 2015b) recording that approximately one third of schools reported using or introducing setting/streaming as a strategy for closing the attainment gap between socially disadvantaged students (those in receipt of 'pupil premium' funds) and their peers.

The popularity of setting (and its US close equivalent of 'tracking', Gamoran & Nyestrand 1994) remains unabashed, despite substantial evidence that the practice is problematic, inequitable and detrimental for the majority of learners. For instance, igniting contemporary debates in the US around tracking, Oakes (1985) argued that tracking produces social inequality. A wealth of studies point to how setting produces little, if any, benefit to overall student outcomes (e.g. Steenbergen-Hu et al., 2016; Burris & Wellner 2005; Higgins et al 2015; Ireson, Hallam & Hurley 2005; Nomi 2009; Slavin 1990); and that while some small gains are evidenced for those in the highest sets/ tracks, those in the lower sets/ tracks achieve significantly poorer outcomes (e.g. Boaler & Wiliam 2001; Burris & Wellner 2005; Higgins et al 2015; Wiliam & Bartolomew 2004). Indeed, Higgins et al (2015) suggest that those in the lowest groups will 'fall behind by one or two months a year, on average, when compared with the progress of similar students in classes with mixed ability groups'. This pattern, whereby attainment grouping is associated with reduced gains for lower attaining students and a widening attainment gap, has been found even within primary education (Marks 2014) and has been noted as particularly stark in relation to mathematics (Boaler, 1997; Heubert & Hauser, 1999).

The negative outcomes for those in the lowest sets are not just limited to attainment, with studies pointing to the deleterious effects on students' self-confidence (Author 2 et al.,

2017; Bartholomew 2000), opportunities, identities and wider life outcomes (Boaler & Selling, 2017; Heubert & Hauser 1999). As Oakes & Lipton (2001, p22) put it: "The result of all this is that most students have needlessly low self-concepts and schools have low expectations. Few students or teachers can defy those identities and expectations".

Attention has been drawn to how setting and tracking, whilst ostensibly based on students' prior attainment, is often organised according to a range of factors (Dunne et al 2011; Hallam & Ireson 2007). For instance, those in higher sets/ tracks tend to come from more affluent/privileged social backgrounds while working-class students are over-represented in the lowest sets/ tracks (e.g. Jackson 1968; Cassen & Kingdom 2007; Dunne et al 2007 Kutnick et al 2005). Likewise, students from minority ethnic communities, such as Black British/ African American students, are more likely to end up in lower sets/ tracks (e.g. Ball 1981; Chambers 2009; Kutnick et al 2005; Chambers & McCready 2011). As a result, it has been argued that, in attainment terms, many students may actually be 'mis-placed' with regard to which set/track they are allocated to (Tomlinson 1987; Jackson 1964; Dunne et al 2007).

Alongside the literature detailing the negative outcomes and inequalities that are produced by setting/tracking, evidence points to the positive impacts that occur when tracking is removed ('de-tracking'), such as improvements in student achievement, a high quality curriculum for all, the maintenance of performance among high achievers, improved student aspirations and narrowing of the ethnic attainment gap (Burris, Heubert, & Levin, 2004; Burris & Welner, 2005).

A Bourdieusian approach: Setting/tracking as pedagogic work and doxa

We have questioned previously (Author 2 et al., 2016), given the wealth of evidence and arguments that attest to the negative outcomes from setting/tracking, and the benefits of mixed attainment teaching and de-tracking, why schools and education systems remain so wedded to attainment grouping practices? As Wellner & Burris (2006) argue, even though tracking is subject

to substantial 'empirical, pedagogical and ethical criticism' (p.90) the practice is still widespread. Moreover, as they discuss, attempts to de-track often fail.

In a previous paper (Author 2 et al., 2016), we found that discursive constructions of the 'naturalness' of elitist educational segregation play a key role in maintaining the status quo in England with regard to the pervasiveness of setting. In this paper, we bring a Bourdieusian theoretical approach to bear on our data, to see if we can extend our explanatory framework further and gain insights particularly from the views of those who experience the 'sharp end' of setting. From this perspective, we interpret setting as an educational technology that both reflects and reproduces the interests of dominant social groups, by reproducing relations of privilege and domination~~subordination~~ as 'natural'. We suggest that setting might be understood as an example of pedagogic work which is undertaken (given the requisite pedagogic authority) to achieve the pedagogic action of social reproduction, such that dominant power relations~~social relations of dominance and subordination~~ are reproduced and students come to 'know their place'. As Bourdieu & Passeron explain, pedagogic work (as performed by schools) produces enduring, socialised dispositions within individuals (habitus) which shape how they perceive and interact with the world:

> … pedagogic work (whether performed by the School, a Church or a Party) has the effect of producing individuals durably and systematically modified by a prolonged and systematic transformative action tending to endow them with the same durable, transposable training (habitus) (Bourdieu & Passeron 1977/2000, p196).

In other words, setting is a means through which the values and positions of the dominant social classes can be reproduced, as '[pedagogic action] seeks to reproduce the cultural arbitrary of the dominant' (Bourdieu & Wacquant, 1977/2000, p.5). Although Bourdieu did not specifically discuss attainment grouping practices per se, he did highlight how processes of educational 'channelling and streaming' play a role in reproducing social hierarchies:

> "… the disadvantage attached to social origin is primarily mediated by educational channelling and streaming (orientations) – with the degrees of differential selection they imply for the different categories of students" (Bourdieu & Wacquant 1977/2000, p.83).

As Bourdieu explains, for social hierarchies and dominant power relations~~relations of subordination/dominance~~ to be reproduced, schools need to reproduce the social and cultural values of the dominant within students. As agents of socialisation, schools perform an important function in inculcating the cultural arbitrary, which is achieved through various means (such as the overt and 'hidden' curriculum, everyday practices, how students are organised, sorted and assessed), albeit in ways that are designed to both legitimise and hide the uneven distributions of power which produce these arrangements. We suggest that setting can thus be understood as pedagogic action, in that it is both explicitly and implicitly driven by the interests and values of the dominant social classes and is designed to ensure that privileged groups can reproduce their privilege through access to the 'best' learning resources and opportunities. These interests are hidden by the notion that setting reflects 'natural' differences in 'ability'), which legitimizes the practice.

As we will explore in this paper, key to the reproduction of social hierarchies and power relations is that setting operates through misrecognition, in that it inculcates the understanding that a student's location (whether in the 'top' or 'bottom' grouping) is a reflection and product of their 'natural' (innate) 'talents' (or lack thereof). This assumption is also belied by the prevalent use of the terminology of 'ability' grouping in the UK (e.g. see Marks, 2014; NfER 1988). As Grenfell and James (1998) explain:

> … misrecognition operates in the education system, Bourdieu argues, through an arbitrary curriculum that is "naturalised" so that social classifications are transformed into academic ones. The result is that instead of being experienced for what they are (i.e. partial and technical hierarchies), such social classifications become "total" hierarchies, experienced as if they were grounded in nature. (Grenfell & James, 1998, pp. 23–24).

A Bourdieusian conceptual framework also helps elucidate the ferocity and tenacity of those who defend and perpetuate setting/ tracking. In other words, the power of setting as a tool for social and cultural reproduction is achieved through misrecognition, whereby set allocation is seen as a reflection of 'natural' differences in 'ability' between students. Moreover, as James (2015, p.100) discusses, "misrecognition is 'functional' rather than simply aberrant or some sort of unintended by-product", with the crucial function being that children from the dominant social class are disproportionately allocated to the top sets.

As we note elsewhere (Author 2 et al., 2016), political and policy discourse around setting is driven by notions of 'excellence', which echo Bourdieu and Passeron's notion of the 'aristocratism of talent' (1977/2000, p202). Notably, support for setting/ tracking tends to focus on 'preserving the quality of high-track classes' (Welber & Burris, 2006, p.91), that is, defending the 'right' of dominant social groups to access and populate the elite and 'best' educational spaces (rather than, for instance, focusing on issues of social justice and equity for all students). The success of setting/ tracking as a mechanism for social reproduction is attested to by the continued influence of other factors (beyond attainment) in shaping the allocation of students to particular sets/tracks and the tendency to allocate the 'best' teachers (and resources) to the top sets/tracks (Slavin, 1990; Ireson & Hallam, 2001).

The underlying pedagogic action that setting/tracking is designed to undertake is also revealed within the concerns that middle-class parents express about the continued 'need' for these grouping practices, namely that low attaining students are disruptive and will negatively impact the learning of high attaining (dominant group) children in the absence of setting/tracking (Wells & Serna, 1996; Welner, 2001a). Indeed, research highlights the barely disguised fear and suspicion of the working-class and/or Black students that is expressed by dominant group parents' who are resistant to de-tracking, such as the often expressed views that students in the low tracks are undesirable cultural influences, who may 'corrupt' those in the higher tracks, should they be allowed to mix (Oakes et al., 1997; Welner, 2001a). Indeed,

Wellner and Burris' (2006) case study of a mid-sized, ethnically and socio-economically mixed school in Pittsburgh showed that it was White parents who tended to support tracking, while African American parents opposed it.

Thus, a Bourdieusian view, which treats setting as a form of pedagogic work, can help explain why majority group members tend to defend the 'naturalness', value and need for setting, even when research evidence clearly documents the inefficiency and unfairness of the practice (Wells and Serna (1996). In this respect, we propose that setting/tracking can be understood as a form of symbolic violence:

> 'All pedagogic action (PA) is, objectively, symbolic violence insofar as it is the imposition of a cultural arbitrary by an arbitrary power' (Bourdieu & Wacquant 1977/2000, p.5).

Thus s~~In other words, set~~etting~~, can be read~~ as a form of symbolic violence~~, because it~~ imposes an ideology that legitimates and naturalizes relations of inequality~~privilege and subordination~~ between dominant and less powerful social groups. Yet the doxa of setting/ tracking is such that the idea of de-tracking (or moving to mixed attainment teaching) can be experienced as 'foreign and forbidding' (Wellner & Corbett Burris 2006: 90) by teachers (Watanabe 2006), head teachers, students and parents (Yonezawa & Jones 2006). Indeed, as noted in our wider study (Author 4 et al., 2016), and by Welner (2001a), many teachers of both high- and low-track classes can be fearful and apprehensive about the prospect of ~~de-tracking/~~ mixed attainment teaching and offer a host of reasons to explain why it is undesirable and/or unfeasible, notably fears that: middle-class parents will complain (and potentially withdraw their children from the school); attainment might drop among the highest attaining students (thus affecting school results and standing); differentiation will become more challenging and burdensome; and behavior management issues will 'spread' and not be confined to the lowest sets. Notably, these reasons share a common assumption that the experiences and chances of the most privileged (students and teachers allocated to the top sets) should not be compromised through 'contamination' by the poor behavior and attainment and learning needs of those in the lowest sets, which would not just

potentially negatively impact the reproduction of privilege but may also hinder the inculcation of the cultural arbitrary. Consequently, we suggest that it is unsurprising that socially advantaged interests and voices that tend to predominate within debates around setting/tracking, for instance, arguing for the importance of defending 'excellence', framing concerns about 'what parents want' solely within the context of middle-class parents, and so on.

While it is not surprising that research has found that the middle-class parents and teachers tend to defend setting, less is known about the views of students, but particularly those who tend to be allocated to the lower sets. Following Bourdieu, we might expect that – if misrecognition is 'doing its job' – lower~~subordinated~~ social groups might be socialized into accepting the cultural arbitrary and thus accepting of the legitimacy of setting. As James explains:

> Domination usually involves at least some sense of largely below-conscious complicity on the part of those subjugated, and processes of misrecognition are what make this possible. (James, 2015, p.101).

Yet as Gramsci (1971) reminds us, no hegemony is absolute and Bourdieu (1990) also recognized that the oppressed~~subordinated~~ can sometimes recognize and be critical of the ways in which social reproduction operates. Hence in this paper, we focus on students' *negative* views of setting, to explore the extent to which students critique and express dissatisfaction with the practice, or not. Our focus also aligns with those who argue for the political value in foregrounding the interests and voices of those who occupy the lower sets/ tracks as a means to challenge unjust power relations. For instance, as Wellner & Burris (2006, p.97) argue, "when parents of low-track students are politically invisible, they are too easily ignored".

With this in mind, in this paper we bring a Bourdieusian analytic lens (e.g. Bourdieu 1977) to bear on students' negative views on setting – asking:

- What are the characteristics of students in higher and lower sets?
- How do students feel about their set allocation? Who expresses the most/least negative views of setting?

- What are the social justice implications of students' views?

Methods

Data are drawn from [project name], funded by [funder], which aims to explore the effects of 'best practice' approaches to setting and mixed attainment on student progress, attainment and a range of other outcomes, focusing in particular on the effects for socially disadvantaged and low attaining students. The project comprises a large-scale randomised control trial (RCT) with two 'arms', the first ~~specifically~~ investigating best practice in setting (n= 84 schools) and the second, a smaller feasibility study exploring best practice in mixed attainment (n=10 schools). These two trials are ongoing at the time of writing. Schools were recruited by an independent party (NFER) using a random sampling framework of English non-selective schools and academies with Year 7 and 8 classes, using an agreed list of local authorities as the sample frame. The project team also recruited schools, using social and traditional media, subject organisations, Local Authority and Multi-Academy Trust brokers, and publicity via the Association of School and College Leaders and Association of Teachers and Lecturers to generate interest.

Schools were eligible for the Best Practice in Setting trial only if their prior practice was to set students in participating departments (English and/or mathematics). Schools were eligible for the Best Practice in Mixed Attainment trial regardless of prior grouping practices, but they needed to be willing to operate fully mixed-attainment. In order to participate in the Best Practice in Mixed Attainment trial, both the English and mathematics departments needed to be willing to sign up. Either or both English and mathematics departments could participate in the Best Practice in Setting trial and be willing to participate in the RCT. When eligibility and consent were confirmed, schools were added to the list for randomisation by NFER.

The current paper reports on the pre-intervention data collected with Year 7 students through an online survey (described below) and interviews/ discussion groups.

Survey

An online survey was administered to 12935 Year 7 students in 94 secondary schools in England during the winter term of the 2015/16 school year. The survey contained a range of items, asking for students' views and experiences of setting/ mixed attainment in addition to collecting a range of demographic information (such as age, gender, ethnicity, social class, and so on). This paper reports on data from one particular part of the survey, namely students' negative views on setting. The '*Negative views on setting*' subscale contains seven statements, to which students were asked to respond on a five-point scale from strongly disagree (coded 5) to strongly agree (coded 1). Items included:

1. It makes some students feel bad about themselves
2. Low achievers are given poor quality teaching
3. It puts pressure on high achievers
4. Students in low groups feel stupid
5. Students are embarrassed to be in the lowest groups
6. Students in high groups are nerds
7. Students in low groups are a bit stupid

A mean score across these items was calculated to create a '*negative view on setting*' variable, scores on which ranged from 1 to 5 (with higher scores reflecting greater negativity). The subscale demonstrated good internal reliability (Cronbach's alpha=0.73). A total of 12164 students completed at least 6 items in this subscale and were therefore included in analysis (including 10888 from Best Practice in Setting (BPS) arm of the trial, and 1276 from the Best Practice in Mixed Attainment (BPMA) arm). There were missing attitude data for 771 (6%) of all

the students who were asked to complete a survey. The characteristics of those students whose data were included in the reported analysis are described in Table 1.

Table 1 about here

Interview and discussion group data:

Interviews and discussion groups were conducted with a total of 33 Year 7 and Year 8 students during the 2014/15 academic year (one girl was interviewed both individually and in a group). These students were sampled from four schools located in London and the South East: 16 students (eleven girls and five boys) were interviewed individually across three schools and 18 students (9 boys and 9 girls) from four different schools took part in six group discussions, 16 of these students were in Year 7 and two were in Year 8 at the time of the interviews.

Students were sampled to achieve a spread of participants from different English and maths sets. Students' set levels were not always the same for maths and English. Teachers were asked to use students' maths set level to create groups of students of similar attainment levels (given that schools tend to set most often in maths). Interview and discussion group students' school set allocations were as follows (where '1' denotes the highest level set):

Maths sets: 5 students in Set 1; 10 students were in Set 2; 4 students in Set 3; 6 students in Set 4; 4 students in Set 5; 4 students Set level unknown.

English sets: 15 students in Set 1; 9 students in Set 2; 7 students in Set 3; 1 student in Set 4; 1 student Set level unknown.

Social class categorisations were assigned on the basis of parental occupations reported by students. The higher status occupation between two parents was used to classify students into the following broad categories: higher SES (n = 8), middle SES (n = 4), low SES (n = 12), and unknown (n = 9).

Students self-categorised their ethnicity in the following way: White British – English, Scottish, Welsh, and Northern Irish (n = 8); White Other (n = 5); Black African (n = 7); White

and Black African (n = 1); White and Black Caribbean (*n* = 3); Caribbean (*n* = 1); Any other Black / African / Caribbean background (n = 1); Other Asian background (*n* = 3); White and Asian (*n* = 1); Any other mixed background (*n* = 1); unknown (*n* = 2).

Individual interviews, lasting between 20 and 30 minutes, and group discussions, lasting in average 40 minutes, were audio recorded and professionally transcribed and pseudonyms assigned to schools and students. The transcripts were thematically coded in NVivo by one of the paper authors using the coding scheme approved by the research team. This paper draws on the themes encompassing students' feelings about being set and the perceived impact of setting on students.

Findings

Social reproduction through setting: who is in which set?

In terms of our first research question, analysis of the survey data revealed~~we found t~~ that, in those schools that used setting, there were significant differences by gender, ethnicity, social class and free school meals (FSM) according to school-reported set level for Maths and English (see Author 4 et al., under review for further detailed analysis of these trends). For instance, using school-reported set level, across both English and maths, working-class children (English: χ^2 =41.1, df=4, p<0.001; maths: χ^2 =133, df=4, p<0.001) and those eligible for free school meals (FSM) (English: χ^2 =148, df=2, p<0.001; maths: χ^2 =286, df=2, p<0.001) were significantly more likely to be in middle and lower sets. A statistically significantly greater proportion of boys were in the bottom set for English (60%) compared to the top set (51%), which compared with 40% of girls in the bottom set (χ^2=27.7, df=2, p<0.001). Conversely, significantly more boys were in the top set for maths (56% boys, cf. 44% girls; χ^2 =43.6, df=2, p<0.001). There were also significant differences in ethnicity, with White students being significantly more likely to be in top sets for English (81%) and Maths (77%) whereas Black and mixed ethnicity children (and

Asian students in the case of English) were more likely to be in lower sets for both subjects (English: χ^2=23.8, df=6, p=0.001; maths: χ^2=39.6, df=6, p<0.001). Variation by whether students spoke English as an Additional Language (EAL) was only significant in English (not maths), where higher proportions of students with EAL were in middle and lower sets (English: χ^2=21.6, df=2, p<0.001; maths: χ^2=4.7, df=2, p=0.10).

From a Bourdieusian perspective, we interpret these findings as exemplifying how the distribution of students across sets follows interactions of gendered, classed and racialised power relations that are produced by (and in turn perpetuate) dominant social hierarchies and cultural values around~~, namely~~: the gendered nature of subjects (namely the association of maths with masculinity and English with femininity); the classed nature of 'ability' (the concentration of middle-class students in top sets and working-class students in lower sets); and the cultural dominance of whiteness (white students tending to occupy top sets, black and minority ethnic students in low sets). We now move to consider the views of the students and they either defend or challenge the practice of setting.

Top set – the ~~'best' and~~ 'superior' place to be

Across the qualitative data, students (identified by themselves and their schools as being) in top sets overwhelmingly described their set allocation in positive terms, ~~(e.g.~~ as 'really good', 'good', ~~'really good',~~ 'fine'~~)~~. For instance, Emma was typical in saying "I think its good […] I like my set" (Emma, set 1 English and maths). Top set students described how their set allocation ~~and as something that~~ made them feel 'proud', 'confident' and 'superior' to other students. W~~For instance, w~~hen asked how they felt about being in the top set, students typically voiced views such as:

> "Proud. Because I'm in the top set and, yeah, basically. Yeah, proud" (Beatrice, Black African, middle SES, English and maths sets 1)

"So I feel quite proud that I'm in the top set" (Orli, White British, higher SES, English and maths sets 1)

This contrasted to those in the middle sets, who described being in their set as 'good' or in slightly more ambivalent terms, such as 'guess so'. As discussed further below, those in the lower sets expressed more negative views still, describing how they felt 'bad' and 'embarrassed' and wanting to 'work their way up' to escape the lowest sets.

Top set students, as exemplified by the following quote from Monica, said they enjoyed being in top set and seemed to convey that different set levels were associated with a status hierarchy, with those in the higher sets feeling 'superior' to those in lower sets~~were often aware of their superior positioning/ status, as exemplified by the following quote from Monica~~:

"You feel good about yourself when you know that you're thriving in the top set, not that you're being dragged along the bottom […] It makes you feel good.[…] I think you must feel superior to the group below you, until you're at the bottom. I think, yes, I do enjoy it but you also have to be quite careful with what you say and how you act. Like, you don't want to be going round to people saying, "Oh, well, I'm in the top set and you're in the second set," because that makes people feel really hard [bad], and so I do enjoy it but you do have to be careful with what you say" (Monica, White British, unknown SES, English and maths sets 1)

We interpret Monica's quote as associating~~d~~ the hierarchy of sets with social prestige and privilege (e.g. feeling "superior" to those "below"). We also suggest that Monica's ~~which, despite being legitimated by the misrecognition of setting as a reflection of 'natural ability', still req~~ comments around ~~ires a social sensitivity (t~~the need to be "careful", can be interpreted as illustrating how set allocation is socially and emotionally charged, in that while those at the top may like their location, they are also aware that those lower in the hierarchy may dislike their

Formatted: Font: Garamond, Not Highlight

Formatted: Font: Garamond

allocation) with regard to how the subordinated experience the hierarchy ("that makes people feel really hard").

Students in other sets suggested that they would prefer to be in the top setalso concurred with the view that top set is 'best' and many aspired to move up the hierarchy of sets, to 'be higher up'is something that others aspire to. Most students simply voiced this as a truism that required no further explanation, for instance:

"I'd prefer to be in Set 1" (Kenneth, Black African, middle SES, English set 1, maths set 2)

"Well, I want to be higher" (Idiris, Black African, low SES, English and maths sets 2)

"I would like to be higher up than what I am now" (Marie, White British, unknown SES, English and maths sets 3)

Like his peers, Brian also expressed a preference for being in the top set:

Where they did give a reason, markers of distinction such as 'good behaviour' and focus and the 'best teaching' were identified. For instance:

"Set one would probably be the ideal environment because no-one's being that distracting" (Brian, White and Asian, higher SES, maths set 2, English set 1)

We interpret Brian's quote as containing some further hints as to why so many students expressed a preference for being in the the top set – namely the notion of it being 'the ideal environment' (which is also alluded to in Monica's quote, above – where she associates the top set with 'thriving', as compared to being 'dragged along the bottom'). Brian did not elaborate much on this point, but we suggest that his remark that, in top set, 'no-one's being that distracting' hints at differences in student behavior between different sets. Although BBrian does not explicitly name 'who' is being distracting in the other sets, but we suggest that his comment could be read in light of the concentration of working-class and Black students in the lower sets and in light of work that has drawn attention to how aligns these communities are often aligned with 'undesirable' attitudes and behaviours within dominant public and educational discourse

(e.g. see Author 1, 2008). ~~and also sets up a distinction between who is 'deserving' of the best (top set) resources (i.e. those who have the 'right' attitudes, behaviours and aptitudes for learning) and those who are 'undeserving', thus underscoring the legitimacy of setting.~~

Top set s~~Misrecognition and setting:~~tudents' perceptions of 'deserving' your place

In the interviews and discussion groups, higher~~top~~ set students overwhelmingly conveyed that they felt deserving of their place and conversely, that students in lower sets were also deserving of their positions. We interpret these perceptions as exemplifying their internalization of the cultural arbitrary which asserts the~~, thus suggesting the~~ legitimacy of setting – or, in Boltanski's terms, the view that setting is a legitimate test of 'something' (in this case, 'ability') rather than an arbitrary test of 'strength' that is determined by capital and power relations (Boltanski, 2011).

For instance, Fred suggested that it does not 'matter' which set someone is placed in:~~drew on notions of natural talent and meritocracy to assert that sets are merely organisational tools that do not influence how well (or not) a student does because the outcomes are 'natural' products of inner 'ability':~~

"I don't think it really matters that much [what set you are in] because you're going to get what you're going to get" (Fred, White British, higher SES, English and maths sets 1)

We interpret Fred as drawing on a notion that different sets do not produce different student outcomes, rather that outcomes are decided by some other, fatalistic destiny ("you're going to get what you're going to get"). While Fred does not explain his view, we suggest that his comment is potentially congruent with the internalization and reproduction of the cultural arbitrary, in which student educational outcomes are seen as the product of 'natural' talent, ability and meritocracy – the implication of which would be that the practice of setting is not, in itself, unfair and does not play a role in producing differential student outcomes. ~~Hence, those in lower sets were generally described as 'deserving' their places~~

Brian introduced another reason for student set allocation, suggesting that some students are placed in lower sets on account of their behaviour: ~~, due to their comparatively lower talents and/or poor behavior, which are positioned as threatening the attainment of more 'deserving' (middle-class, higher 'ability') students:~~

> "In some of the lower sets you are put with people who can be not in that set because they're not clever, because they don't try enough, and that could bring your level down as well. Because they're being disruptive in class which could distract you" (Brian, White and Asian, higher SES, maths set 2, English set 1)

We interpret Brian's quote as suggesting that disruptive behavior and a lack of effort ("they don't try enough") are also reasons why some students are allocated to lower sets. Moreover, we read Brian's concern, that being placed in a lower set could impact negatively on the performance of students like himself ("that could bring your level down as well"), as potentially hinting at his internalization and social reproduction of the cultural arbitrary, which posits that dominant group children need to be protected and kept away from the undesirable influence of the working-classes. That is, ~~f~~From a Bourdieusian perspective, we read both Fred and Brian's extracts as~~these discourses can be interpreted as~~ exemplifying how students can internalize and reproduce the cultural arbitrary through the view that set positions are allocated on the basis of academic and behavioural personal merit (rather than being the result of other processes, such as the differential workings of habitus, capital and forms of pedagogic work). We suggest that an implication of such views is that the concentration of socially advantaged students in~~misrecognition, the process of~~ the top set~~inculcation that 'naturalizes' the view that sociall~~ is further reproduced as natural and deserving ~~y advantaged children 'deserve' to be in the higher sets (i.e. deserve their 'superior' po~~and that less powerful social groups~~sitions) and that others (those with less 'talent' and undesirable dispositions and behaviours – those who do not appropriately invest in 'the game')~~ are seen as 'deservinge' their inferior positions. As Bourdieu explains, schooling legitimates the social order:

> "when it persuades the classes it excludes of the legitimacy of their exclusion, by preventing them from seeing and contesting the principles in whose name it excludes them […] the School today succeeds, with the ideology of natural 'gifts' and innate 'tastes', in legitimating the circular reproduction of social hierarchies and educational hierarchies' (Bourdieu & Passeron, 1977/2000, p.208)

The function of setting is thus '… to convince the disinherited that they owe their scholastic and social destiny to their lack of gifts or merits' (*ibid.*, p.210). As James explains, misrecognition is:

> … a regular feature of educational processes, in which the institutional welcome, nurturance and certification of certain sets of dispositions (relative to others) is reinterpreted as the result of natural difference rather than socially maintained difference. (James, 2015: p.106).

In this respect, we suggest that setting is a particularly important process for the middle-classes as a technology for assuring and justifying class privilege. Indeed, 'the inheritor of bourgeois privileges must today appeal to the academic certification which attests at once his gifts and his merits' (Bourdieu & Passeron, 1977/2000, p.210). But what about the views of those in the bottom sets? Do they concur, or not ~~with this misrecognition~~? We begin by considering the quantitative data, to explore the wider patterns in students' negative views about being in the bottom set. We then discuss how students' articulated their views in the qualitative data.

Students negative views of the~~The~~ bottom set – (i) quantitative data ~~a disparaged and 'embarrassing' place to be~~

Our survey data suggests that, i~~I~~n comparison to those in the top and middle-sets, students in the lowest sets expressed the most negative views of setting. In line with other research, we

found that students in lowest sets overwhelmingly do not like being there (see Boaler, Wiliam & Brown 2000; Zevenbergen 2005). For instance, in Hallam & Ireson's 2007 study, 62% of maths bottom set students wanted to change set compared with just 16% of the top set).

As shown by Tables 2 and 3, we found that students in the lowest set - whether that is the set they self-reported being in or the set that their school reported them being in - expressed the most negative views towards setting. Indeed, there appears to be a trend towards increasing negativity towards setting as set level moves from top to bottom for both English and maths.

Tables 2 and 3 here

Using the BPS trial data, four hierarchical multiple regression models were conducted to explore the impact of self-reported and school-reported set levels on negative attitudes towards setting. These models also included student characteristics as covariates as well as the influence of perceived set and actual set for both English and maths on attitude to setting. Consistently across all four models (see Appendix), boys expressed more negative attitudes to setting than girls, as did students recording lower levels of prior attainment for reading and maths (as recorded by Key Stage 2 assessments, the national tests taken at the end of primary school, age 10/11). Black students and those (ever) eligible for free school meals (FSM) all expressed significantly more negative views on setting than other students. There were no significant differences in how negative students felt about setting according to EAL status or household occupation.

Our quantitative findings indicate that those who are most negative about setting are those who perceive themselves to be in the bottom sets and those who occupy less advantaged positions in the wider social hierarchy (e.g. in terms of social class and ethnicity). From a Bourdieusian perspective, this might be expected as those who have the most to gain from setting (those in the privileged top sets) are the least negative and hence most supportive of the practice. However, it was interesting that school reported set was unrelated to students' negative

attitude towards setting. However, students' *perceived* set, specifically perceiving yourself to be in the bottom set, was statistically significantly associated with a more negative attitude towards setting for both English and maths – suggesting the importance of students' perceptions of which set they are in. ~~We consider this point further next.~~

Formatted: Indent: First line: 0.5"

~~***Stigma, embarrassment and disidentification***~~

Within schools that use setting, comparing school-reported versus student self-reported set levels, we found that approximately 80% of students in English and 87% of those in mathematics identified themselves as being in the same set as their school considered them to be in. However, as detailed in Table 4, 64% of bottom set students in English and 52% of those in mathematics perceived themselves to be in a higher (predominantly middle) set than their school considered them to be in. For instance, in English 84% of top set and 86% of middle set students expressed the same view as their school regarding their set level, compared with just 36% of bottom set students. A similar picture arose in maths, with 90% of top set and 89% of middle set students agreed with their school's view of their set level, compared with just 49% of bottom set students.

Table 4 here

This disjuncture could arise from a range of factors, such as the questionable 'accuracy' (or otherwise) of self-reported data (from both individuals and schools) and movement between sets over time and set allocations. However, next we consider the qualitative data to explore the issue further and suggest that a further reason could be the stigma and embarrassment associated with lower sets.

Students' negative views of setting – (ii) qualitative data

Formatted: Font: Bold

Formatted: Font: Bold

The~~Another contributory factor for consideration may be that when they are aware of being in the bottom set, these students dissociate (whether consciously or unconsciously) from the 'spoiled' and stigmatised identity of the 'bottom set'.~~

~~Indeed, the~~ qualitative data supported the quantitative data in that students from lower sets tended to say that they did not being in these sets and would prefer to 'move up' (and in line with the data discussed earlier on students' preference for the top set). When asked how they felt about being in the lower sets, James and Lydia were typical in their replies:~~suggested that students largely explained their dislike of being in the bottom set (and their desire to move 'up' and escape) as due to feelings of stigmatisation and the 'embarrassment' of being publicly identified as subordinate:~~

"Because I'm in Set 4 I feel a bit embarrassed about that because other people are in the higher sets" (James, White British, low SES, maths set 4, English set 2)

-"Bad. I feel like I can do better" (Lydia, Other White, low SES, English set 4, maths set 2)

Formatted: Indent: Left: 0.5", First line: 0.04"

We interpret James and Lydia's comments about feeling 'embarrassed' and 'bad' as conveying a notion of ~~suggested that students largely explained their dislike of being in the bottom set (and their desire to move 'up' and escape) as due to feelings of stigma~~stigma in which~~tisation and the 'embarrassment' of being publicly identified as subordinate~~ bottom sets are associated with inferiority. ;These feelings were summed up most powerfully by Nissa, who recounted how he felt on learning that he had been allocated to the bottom maths set (set 5):

Nissa: I almost died.

Int: You almost died? That's quite dramatic. Why was that? //

Nissa: When your friends are waiting for you they say, "What set are you in?" They can say like, Set 4 but that's better than being in Set 5. I like my

> maths teacher, no disrespect, but being in Set 5 is just, you feel like you're…

Likewise, students in other sets, but particularly those closest to the bottom set, expressed their relief that they had (for now) avoided or escaped from being allocated to the most disparaged grouping:

> "Well, I used to be in Set 5, then I moved up to set 4, so I'm happy now, because I've moved up. Set 4 is one of the better classes to be in (Levon, White and Black Caribbean, middle SES, maths set 4, English set 2)
>
> "I feel okay I'm in set 4 - but I was glad to move up" (Sabah, Black African, low SES, maths set 4, English set 1)
>
> "Yeah, I don't mind. It's better than being in set 5" (Emily, White Other, low SES, maths set 4, English set 1)

We suggest that such views illustrate the 'hidden injuries' (Sennett and Cobb, 1972) of social reproduction - such as the 'embarrassment' and recognition of being ascribed 'no value' through one's bottom set position - that are experienced by those who have to live positions of inferiority~~subordination~~. The palpable relief of those students who manage to 'move up' – and their recognition that any set is better than the bottom set – also suggests that those who 'escape' this fate are more likely to accept the legitimacy of setting. ~~Another contributory factor for consideration may be that when they are aware of being in the bottom set, these students dissociate (whether consciously or unconsciously) from the 'spoiled' and stigmatised identity of the 'bottom set'.~~

~~Yet, our analysis also revealed some small instances of critique and dissent, as we discuss next.~~

~~**Views from 'below': Questioning the 'fairness' of setting**~~

~~While the interview data did not contain negative views or critiques of setting expressed by students in the top set, there were hints of resentment from some other students, who questioned their own, and in David's case *all* students', exclusion from the top sets:~~

> ~~"I think, I think all of us should go to higher" (David, Black African, unknown SES, English and maths sets 3)~~

Those in bottom sets were the most likely to raise questions about the legitimacy of set allocation, notably complaining that their efforts and improvements in attainment did not translate into set movement. Several~~Indeed, a number of~~ bottom set students complained that they could not understand why they 'never seem to move on':

> "But then I feel, why can't I move up if I do my best?" (Jessica, White Other, low SES, maths set 5, English set 2)

> "Because in my sets, I've done so well in maths but I couldn't understand why I'm in Set 5 and most of the time the questions are way easy so I do them straightaway, but I never seem to move on" (Nissa, White and Black African, higher SES, maths set 5, English set 2)

We interpret ~~The confusion and frustration that infuses~~ Jessica and Nissa's quotes as conveying confusion and frustration - they do not understand why their improved attainment ("I've done so well in maths") does not translate into moving up a set ("why can't I move up?"). We read their~~convey how they do not understand the 'rules of the game' and potentially call into question the legitimacy of the way that the 'game' is played out. For instance, Nissa contrasts his attainment ("I've done so well in maths") with his set immobility, thus implicitly questioning the attainment-based rationale for set allocation. The~~ extracts as hinting at how symbolic violence may be enacted not only through pedagogic communication but also through the lack of it (that is, the lack of explanation to these students for why they 'can't move up'). The students'

confusion can be understood~~interpreted~~ as hinting at how pedagogic work can hide the operation of power, making it difficult to question and challenge the 'fairness' of particular practices. Interestingly, despite Nissa's middle-class background, he remains in the bottom set – although it is possible that his class privilege is mediated by ethnicity (see Author 1, 2012) and he gave no indication of the deployment of capital (such as parents challenging the school; purchasing private tuition) that has been documented by other research detailing the strategies used by the middle-class to secure educational advantage for their children (e.g. Lareau 2003; Vincent and Ball 2005).

The capacity to think otherwise?

In this paper we have focused on exploring the views of students who experience setting, who took part in the setting arm of the RCT trial. But in this final section, we look more broadly across the wider project, to consider what insights we might gain from the survey data regarding the views of students ~~who took part in the other arm of the study,~~ who attended schools that practiced mixed attainment, who took part in the mixed attainment trial (as detailed in the methods section). Across both trials and for all three subjects specified (English, maths and science), students who reported being in mixed attainment classes expressed more negative views towards setting compared to those who reported being set (see Table 5). This difference in attitudes was statistically significant on each occasion ~~(see Table 5)~~. For instance, students who perceived themselves to be in mixed attainment groups for English were significantly more negative about setting than those who perceived themselves to be in sets ($p=0.002$) – a picture that was replicated in maths ($p<.001$) and science ($p=0.002$).

Table 5 here

Moreover, a separate analysis of group discussions conducted in mixed attainment schools found that lower attainers were more likely than other students to express positive views about mixed

attainment grouping (Author 5 et al., forthcoming). While there is insufficient space to explore these findings in depth, for the present paper we suggest that they raise the interesting possibility that those students who are *not* subject to the doxa of setting may be able to reflect more critically on the practice. That is, our analysis of the views of students who are taught in sets suggests that they largely accept the legitimacy of the practice (whether they benefit or not from the reproduction of dominant power relations ~~of privilege and subordination~~ that setting produces). Yet students who are not subject to setting may be more likely develop the critical capacity to 'think otherwise' and thus express more negative views about the practice. This could be because students taught in mixed attainment classes are not subject to the particular pedagogic work of setting that naturalizes the legitimacy of differential attainment and resource entitlement by gender, social class and ethnicity.

Discussion

Our exploration of students' negative views of setting revealed how students in the highest sets expressed the least negative views of setting and recounted enjoying and being proud of their top set status. Students in other sets concurred that the top set is the 'best' (most desirable) set. In contrast, students in the lowest sets expressed the most negative views of setting. They disliked being there, due to the embarrassment and stigma attached to these 'inferior' locations and wished to move 'higher' (even potentially dissociating from their set location, with some reporting themselves as being in a higher set than their school-reported allocation). The survey data showed that top set students are more likely to be white and middle-class, and bottom set students are more likely to be working-class and black, which we interpreted as exemplifying how setting is a form of pedagogic work that reflects the interests of dominant groups and reproduces social and cultural hierarchies and power relations ~~of privilege and subordination~~. Unsurprisingly, top set students were the most likely to support the concept

of setting and regard set allocation as a fair reflection of 'ability' and 'deservingness', while those in the lower sets were more negative about setting. Yet even among those in the lowest sets, there were relatively few explicit views challenging the fairness of setting (or recognising the cultural arbitrary on which it is based), which we interpreted as exemplifying how misrecognition helps ensure that such processes are seen as legitimate, and are thus are perpetuated, often with the compliance of the dominated. Yet we also found that students who are *not* subject to setting (i.e. those who are taught in mixed attainment classes) were more negative about setting than those who experience setting, which we read as suggesting the potential for greater critique that is enabled from being located outside a particular doxa.

Hence we conclude that setting can be understood as a practice of distinction which is achieved through misrecognition. That is, setting can be interpreted as a technology of social reproduction, that reflects the interests of the privileged and is designed to maintain social class and racialized inequalities and unequal relations ~~of privilege and subordination~~. The legitimacy of setting is maintained through misrecognition, in which students come to understand themselves and others as 'deserving' their set allocation on the basis that the judgements used to assign them are simply reflective of their 'natural' abilities and that segregation is needed in order to protect (to legitimate and not contaminate) the ('better') experiences and attainment of those with higher 'ability' from the 'distracting' presence of Others (those of 'undesirable' ability, dispositions and behaviour). Pedagogic work reinforces the legitimacy of these arbitrary distinctions and obscures the potential for challenge (e.g. how bottom set students might 'move up').

Despite the claims made by advocates of setting – in which setting is considered to be beneficial for all students because it enables teaching to match differentially with students' 'needs' and 'abilities' (see Author 2 et al., 2016), we argue that the concentration of working-class and Black students in low sets within schools in England is a powerful and pernicious tool within the social reproduction of unequal power relations. Indeed, evidence highlights how being in a

low set correlates with a range of negative outcomes, including lower attainment, negative self-concept and self-esteem (e.g. Belfi et al., 2012) and less favourable life outcomes. For instance, Boaler & Selling (2017) point to the differing outcomes for two student cohorts (who had been initially matched for attainment and social background), whereby those who had been taught mathematics in mixed attainment classes using problem-solving and project work approaches had notably improved employment outcomes (as well as higher school maths attainment) than those who experienced a more didactic teaching approach within attainment sets. Interestingly, the mixed attainment approach was also associated with less pronounced patterns in attainment by social class, gender and ethnicity.

One point that our Bourdieusian lens was less helpful in explaining was the survey finding that boys were more negative about setting than girls. The reasons are complicated by our finding that although boys were more likely than girls to be in the bottom set for English, they were also more likely than girls to be in the top set for maths. That is, the views did not simply reflect a greater propensity for boys to be in the bottom set. We were not able to find any information within the qualitative data to help explain or elucidate this finding, nor did we find Bourdieu's work to illuminate in this respect. However, drawing across from feminist theory, we might tentatively speculate that one possible factor generating boys' greater discontent might be a greater fear of 'failure' (Jackson, 2002). Moreover, in line with dominant power relations, boys are often encouraged to be competitive and in subjects such as science and mathematics are often expected by others (such as teachers and parents) to 'naturally' attain well (Carlone 2004). As a result, we might extrapolate that boys will express particularly negative views about being placed in lower sets. Gender privilege is also tempered by social class and racialized inequalities, hence we might speculate that working-class and Black boys are more negative about setting than their female peers because their (presumed) gender privilege might lead them to question the legitimacy of the pedagogic work that setting undertakes to produce them in disparaged social

positions. That is, their gender privilege may 'interfere' with the processes of inculcation and acceptance of their class/racialized inequality.

Based on our study findings as reported here and elsewhere (e.g. Author 2 et al., 2016; Author 4 et al., 2016), we conclude that setting remains a problematic practice from a social justice point of view and, from this perspective, would be best discontinued. Moving to mixed attainment teaching would, in our view, help improve both attainment and life chances across a broader range of social groups. For instance, OECD (2013) evidence suggests that education systems with less segregation by attainment tend to record higher achievement.

Yet, the practice remains highly prevalent, which we suggest is explained by its role in social reproduction. Hence, the value and legitimacy of setting (as a way of reproducing dominant power relations ~~of privilege and subordination~~) will inevitably be strongly defended and justified by the dominant. Indeed, as Bourdieu reminds us, from the point of view of societal elites, the 'wastage' of working class and Black talent that is generated by such practices is a small price to pay for social reproduction:

> it can be seen that a low technical efficiency may be the price paid for the educational system's high efficiency in performing its function of legitimising the 'social order' (Bourdieu & Passeron, 1977/2000, p.184).

Hence, while we would argue that there is both a 'common sense' and a social justice case to be made for stopping the practice of setting (that is, there are strong grounds to assume it would help raise attainment and help challenge social inequalities), a Bourdieusian analysis reminds us that any efforts to meaningfully disrupt and dismantle practices of setting in England will face immense opposition. Moreover, any such moves towards more universal mixed attainment teaching would need to be supported not just by those who are currently disadvantaged by the system but also by those who currently benefit most from it. Although this may be a mammoth task, which might be viewed somewhat pessimistically as doomed to failure, Wellner & Corbett Burris (2006) suggest, based on the case study experience of two urban US schools, that gains

can be made, even to the point of some schools deciding to stop tracking. In this respect, we hope that this paper might add to the weight of evidence that might be used within such political endeavours.

In particular, Wellner & Burris (2006) argue for the importance of making heard within debates the voices of those who lose out most from 'ability' grouping practices. As they usefully assert: "when parents of low-track students are politically invisible, they are too easily ignored" (Wellner & Burris, 2006, p.97). We support this assertion, calling for public and policy debates in England to give greater weight and visibility to the experiences and views of 'bottom set' students. We see this as being important politically and symbolically, as a way to disrupt current hegemonic discourse around setting.

At the very least, we advocate for a disruption to the hegemony of setting and would encourage more schools to consider mixed attainment teaching. Not only do we believe that such practices would be beneficial and equitable to the students in question, but we suggest that such spaces are necessary for the promotion and enabling of the capacity for us to 'think otherwise' about education. Beyond this, we also call for more empirically and conceptually informed debate and reflection within education in England, focused on the implications for those who are relegated to the 'bottom sets', with a view to disrupting, what Bourdieu would term, the current *doxa* around setting.

References

Author 1, 2012

Author 1, 2008

Author 2 et al. (2016)

Author 4 et al. (under review)

Author 4 et al. (2016)

Ball, S. J. (1981) *Beachside comprehensive: A case-study of secondary schooling* (CUP Archive).

Bartholomew, H. (2000) Negotiating identity in the community of the mathematics classroom.

Boaler, J. (1997). *Experiencing school mathematics: teaching styles, sex and setting*. Buckingham, UK: Open University Press.

Boaler, J. & Selling, S.K. (2017) Psychological Imprisonment or Intellectual Freedom? A Longitudinal Study of Contrasting School Mathematics Approaches and Their Impact on Adults' Lives. *Journal for Research in Mathematics Education,* 48 (1), pp. 78-105.

Boaler, J. & Wiliam, D. (2001) Setting, streaming and mixed-ability teaching, in: J. Dillon & M. Maguire (Eds) *Becoming a teacher* (Maidenhead, Open University Press), 173-181.

Boaler, J., Wiliam, D. & Brown, M. (2000) Students' experiences of ability grouping-disaffection, polarisation and the construction of failure, *British Educational Research Journal*, 26(5), 631-648.

Bourdieu, P. (1977) Cultural reproduction and social reproduction. In Karabel, J. and Halsey, A.H. (eds.) *Power and Ideology in Education*. New York, Oxford University Press.

Bourdieu, P. (1990/ 2016) *The Logic of Practice*. Cambridge, Polity Press.

Bourdieu, P. & Passeron, J.-C. (1977/2000) *Reproduction in Education, Society and Culture*. (London, Sage).

Bourdieu & Wacquant 1977/2000 *Reproduction in Education, Society and Culture*. Sage, London

Burris, C. C., Heubert, J. P. & Levin, H. M. (2006) Accelerating mathematics achievement using heterogeneous grouping, *American Educational Research Journal*, 43(1), 105-136.

Burris, C. C. & Welner, K. G. (2005) Closing the Achievement Gap by Detracking, *Phi Delta Kappan*, 86(8), 594-598.

Carlone, H. B. (2004). The cultural production of science in reform-based physics: Girls' access, participation, and resistance. *Journal of Research in Science Teaching, 41*(4), 392-414.

Formatted: Font: Italic, Do not check spelling or grammar

Formatted: Font: Italic, Do not check spelling or grammar

Cassen, R. & Kingdon, G. (2007) Tackling low educational attainment, (York, Joseph Rowntree Foundation).

Chambers, T. T. V. & McCready, L. T. (2011) "Making Space" for Ourselves: African American Student Responses to Their Marginalization, *Urban Education*, 46(6), 1352-1378.

Chambers, T. V. (2009) The "Receivement Gap": School Tracking Policies and the Fallacy of the "Achievement Gap", *The Journal of Negro Education*, 78(4), 417-431.

DCSF (2007) Effective provision for gifted and talented students in secondary education, (London, DCSF).

DfE (2015) *Supporting the attainment of disadvantaged pupils: articulating success and good practice.* Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/473974/DFE-RR411_Supporting_the_attainment_of_disadvantaged_pupils.pdf (accessed 1 December 2015).

DfEE (1997) *Excellence in Schools.* (London, HMSO).

Dunne, M., Humphreys, S., Dyson, A., Sebba, J., Gallannaugh, F. & Muijs, D. (2011) The teaching and learning of pupils in low-attainment sets, *Curriculum Journal*, 22(4), 485-513.

Dunne, M., Humphreys, S., Sebba, J., Dyson, A., Gallannaugh, F. & Muijs, D. (2007) Effective teaching and learning for pupils in low attaining groups, in: DCSF (Ed) (London.

Gamoran, A. & Nystrand, M. (1994) Tracking, instruction and achievement, *International Journal of Educational Research*, 21(2), 217-231.

Gramsci, A. (1971) *Selections from the prison notebooks.* London, Lawrence & Wishart.

Grenfell, M., & James, D. (with Reay, D., Hodkinson, P., & Robbins, D.) (1998). Bourdieu and education – Acts of practical theory. London: Falmer Press.Hallam, S. (2012) Streaming and

Formatted: Font: Italic

Setting in UK Primary Schools: Evidence from the Millennium Cohort Study, *FORUM: for Promoting 3-19 Comprehensive Education*ERIC), 57-64.

Hallam, S. & Ireson, J. (2007) Secondary school pupils' satisfaction with their ability grouping placements, *British Educational Research Journal*, 33(1), 27-45.

Heubert, J. P. & Hauser, R. M. (1999) *High stakes: Testing for tracking, promotion and graduation* (Washington DC, The National Acvademies Preess).

Higgins, S., Katsipataki, M., Coleman, R., Henderson, P., Major, L., Coe, R. & Mason, D. (2015) *The Sutton Trust - Education Endowment Foundation Teaching and Learning Toolkit* (London, Education Endowment Foundation).

Ireson, J. & Hallam, S. (2001) *Ability grouping in education* (London : Paul Chapman).

Ireson, J., Hallam, S. & Hurley, C. (2005) What are the effects of ability grouping on GCSE attainment?, *British Educational Research Journal*, 31(4), 443-458.

Jackson, B. (1964) *Streaming: An education system in minature* (London, Routledge and Kegan Paul).

Jackson, C. (2002) 'Laddishness' as a self-worth protection strategy. *Gender and Education*, 14(1), 37-51.

James, D. (2015) How Bourdieu bites back: recognising misrecognition in education and educational research. Cambridge Journal of Education, DOI: 10.1080/0305764X.2014.987644.

Kutnick, P., Sebba, J., Blatchford, P., Galton, M., Thorp, J., MacIntyre, H. & Berdondini, L. (2005) The effects of pupil grouping: Literature review, (London, DFES).

Lareau, A. (2003) *Unequal childhoods: Class, race and family life.* Berkeley, University of California Press.

Marks, R. (2014) Educational triage and ability-grouping in primary mathematics: a case-study of the impacts on low-attaining pupils, *Research in Mathematics Education*, 16(1), 38-53.

Formatted: Font: Italic, Do not check spelling or grammar

Nomi, T. (2009) The Effects of Within-Class Ability Grouping on Academic Achievement in Early Elementary Years, *Journal of Research on Educational Effectiveness*, 3(1), 56-92.

Oakes, J. (1985) *How schools structure inequality* (New Haven, Yale University Press).

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.

OECD (2013) Selecting and grouping students. PISA 2012 results: What makes schools successful? Resources, Policies and Practices., (Paris, OECD Publishing), 71-92.

Slavin, R. E. (1990) Achievement effects of ability grouping in secondary schools: A best-evidence synthesis, *Review of educational research*, 60(3), 471-499.

Steenbergen-Hu, S., Makel, M.C. & Olszewski-Kubilius, P. (2016) What One Hundred Years of Research Says About the Effects of Ability Grouping and Acceleration on K–12 Students' Academic Achievement: Findings of Two Second-Order Meta-Analyses. *Review of Educational Research*, 86 (4), pp.849–899.

Steenbergen-Hu, S. & Moon, S. M. (2011) The effects of acceleration on high-ability learners: A meta-analysis, *Gifted Child Quarterly*, 55(1), 39-53.

Stewart, W. (2013) Do setting and streaming work?, *Times Educational Supplement*.

Tomlinson, S. (1987) Curriculum option choices in multi-ethnic schools, in: B. Troyna (Ed) *Racial Inequality in Education* (London, Tavistock), 92-108.

Vincent, C. and Ball, S.J. (2005) *Childcare, Choice and Class Practices*. London, Routledge.

Welner, K. & Burris, C. C. (2006) Alternative Approaches to the Politics of Detracking, *Theory Into Practice*, 45(1), 90-99.

Formatted: Font: Italic, Do not check spelling or grammar

Wiliam, D. & Bartholomew, H. (2004) It's not which school but which set you're in that matters: the influence of ability grouping practices on student progress in mathematics 1, *British Educational Research Journal*, 30(2), 279-293.

Zevenbergen, R. (2005) The construction of a mathematical habitus: implications of ability grouping in the middle years, *Journal of curriculum studies*, 37(5), 607-619.

Table 1: Characteristics of the student sample who completed the online survey

Characteristic	Frequency	Per cent
Gender		
Male	6382	52
Female	5782	48
Total	12164	100
Ethnicity		
White	9232	76
Asian	1028	8
Black	670	6
Mixed	1018	8
Missing	216	2
Total	12164	100
English as an Additional Language (EAL)		
EAL	1244	10
Not EAL	10894	90
Missing	26	0.2
Total	12164	100
Household Occupation		
Lower	1772	15
Intermediate	3822	31
Higher	5287	43
Missing	1283	11
Total	12164	100
Ever eligible for Free School Meals (FSM)		

Ever FSM	2864	66
Not FSM	8048	24
Missing	1252	10
Total	12164	100

Table 2: Comparison of 'negative views on setting' by (student-reported) set in English and maths (BPS sample only n=10888)

	N	Mean	SD
English			
Top set	1834	2.53	0.72
Middle set	2544	2.61	0.76
Bottom set	306	2.80	0.92
Missing[i]	6204	2.70	0.78
Total	10888		
Maths			
Top set	3084	2.54	0.68
Middle set	4269	2.62	0.75
Bottom set	555	2.78	0.85
Missing	2980	2.79	0.85
Total	10888		

Table 3: Comparison of 'negative views on setting' by (school-reported) set in English and maths (BPS sample only)

	N	Mean	SD
English			
Top set	1493	2.55	0.73
Middle set	2529	2.65	0.81
Bottom set	611	2.78	0.87
Missing	6255	2.67	0.75

Total	10888		
Maths			
Top set	3170	2.56	0.70
Middle set	4973	2.67	0.79
Bottom set	1155	2.78	0.84
Missing	1590	2.70	0.79
Total			

[i] Note that in the BPS sample (n=10888) not all respondents reported being set for English or maths or both and for this reason there is a high proportion of missing data.

Table 4: School assigned versus self-report set

	School assigned set		
	Top	**Middle**	**Bottom**
English			
Self-reported set			
Top	1089 (84%)	173 (11%)	18 (6%)
Middle	190 (15%)	1374 (86%)	176 (58%)
Bottom	10 (1%)	58 (4%)	111 (36%)
Total	1289 (100%)	1605 (100%)	305 (100%)
Maths			
Self-reported set			
Top	2543 (90%)	242 (7%)	44 (7%)
Middle	259 (9%)	4148 (89%)	303 (45%)
Bottom	31 (1%)	133 (4%)	329 (49%)
Total	2833 (100%)	4523 (100%)	676 (100%)

Table 5: Comparison of 'negative views on setting' by student-reported perceptions of grouping practices in English, maths and science.

	N	Mean	SD	Sig.
English				
Sets, streams or combination	5328	2.60	0.77	p=0.002
Mixed attainment	4660	2.66	0.74	
Maths				
Sets, streams or combination	8666	2.61	0.74	p<.001
Mixed attainment	1945	2.75	0.81	
Science				
Sets, streams or combination	4814	2.60	0.76	p=0.002
Mixed attainment	4240	2.66	0.76	

Appendix

Table A1: Hierarchical linear regression model for **perceived set in English** as a predictor of negative attitudes towards setting

	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Perceived set						
Middle	0.02	0.04	0.56	0.58	-0.05	0.09
Bottom	0.19	0.08	2.46	0.01	0.04	0.34
Male	0.13	0.03	4.13	0.00	0.07	0.19
EAL status	-0.01	0.06	-0.11	0.91	-0.12	0.11
Ethnicity						
Asian	0.04	0.06	0.64	0.52	-0.08	0.16
Black	0.17	0.07	2.32	0.02	0.03	0.31
Mixed	0.06	0.06	1.11	0.27	-0.05	0.18
Household occupation						
Intermediate	-0.06	0.05	-1.24	0.22	-0.15	0.03
Higher	-0.02	0.05	-0.48	0.63	-0.11	0.07
Ever FSM	0.11	0.04	2.84	0.00	0.03	0.19
KS2 Reading	-0.02	0.01	-4.42	0.00	-0.04	-0.01
Constant	0.51	0.18	2.78	0.01	0.15	0.87

Table A2: Hierarchical linear regression model for **perceived set in maths** as a predictor of negative attitudes towards setting

	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Perceived set						
Middle	0.03	0.03	0.93	0.35	-0.03	0.09
Bottom	0.18	0.06	3.00	0.00	0.06	0.29
Male	0.18	0.02	7.40	0.00	0.13	0.23
EAL status	0.01	0.04	0.21	0.83	-0.08	0.09
Ethnicity						
Asian	0.05	0.05	1.11	0.27	-0.04	0.15
Black	0.14	0.05	2.54	0.01	0.03	0.25
Mixed	0.14	0.04	3.23	0.00	0.06	0.23
Household occupation						
Intermediate	-0.02	0.04	-0.55	0.58	-0.09	0.05
Higher	0.02	0.04	0.56	0.58	-0.05	0.09
Ever FSM	0.13	0.03	4.05	0.00	0.06	0.19
KS2 Maths	-0.02	0.00	-4.54	0.00	-0.02	-0.01
Constant	0.23	0.13	1.81	0.07	-0.02	0.49

Table A3: Hierarchical linear regression model for **actual set in English** as a predictor of negative attitudes towards setting

	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Perceived set						
Middle	0.04	0.04	1.01	0.31	-0.04	0.12
Bottom	0.06	0.07	0.95	0.34	-0.07	0.19
Male	0.15	0.03	4.52	0.00	0.08	0.21
EAL status	0.02	0.06	0.27	0.79	-0.10	0.13
Ethnicity						
Asian	0.06	0.06	0.96	0.34	-0.06	0.19
Black	0.17	0.08	2.05	0.04	0.01	0.32
Mixed	0.05	0.06	0.81	0.42	-0.07	0.17
Household occupation						
Intermediate	-0.04	0.05	-0.81	0.42	-0.13	0.05
Higher	0.03	0.05	0.73	0.47	-0.06	0.12
Ever FSM	0.19	0.04	4.76	0.00	0.11	0.26
KS2 Reading	-0.03	0.01	-5.81	0.00	-0.04	-0.02
Constant	0.69	0.18	3.78	0.00	0.33	1.06

Table A4: Hierarchical linear regression model for **actual set in Maths** as a predictor of negative attitudes towards setting

	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Perceived set						
Middle	0.05	0.03	1.76	0.08	-0.01	0.11
Bottom	0.08	0.05	1.58	0.12	-0.02	0.17
Male	0.20	0.02	8.80	0.00	0.15	0.24
EAL status	0.01	0.04	0.34	0.74	-0.06	0.09
Ethnicity						
Asian	0.06	0.04	1.34	0.18	-0.03	0.14
Black	0.13	0.05	2.52	0.01	0.03	0.23
Mixed	0.15	0.04	3.71	0.00	0.07	0.23
Household occupation						
Intermediate	-0.01	0.03	-0.21	0.83	-0.07	0.06
Higher	0.04	0.03	1.11	0.27	-0.03	0.10
Ever FSM	0.15	0.03	5.25	0.00	0.09	0.20
KS2 Reading	-0.02	0.00	-6.03	0.00	-0.03	-0.01
Constant	0.35	0.12	2.95	0.00	0.12	0.58