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The effects of setting on classroom teaching and student learning in mainstream

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In the United Kingdom (UK) government pressures to raise attainment has led many schools
to implement structured ‘ability' grouping in the form of setting (Hallam & Deathe, 2002).
The introduction of selective grouping has been justified with the assumption that the
differentiation of students by ‘ability’ advances students’ motivation, social skills,
independence (Department for Education and Skills (DfES), 2005, 58) and academic success
in national tests and examinations (Ireson & Hallam, 2005) because students are “better
engaged in their own learning” (DfES, 2005, 58) This paper critically engages with this
assumption. Drawing upon qualitative research conducted in UK primary and secondary
Mathematics, Science and English setted classrooms the aim of this literature review is to
consider how teachers’ pedagogic practices with low, middle and high ‘ability’ sets facilitates
and/or constrains students’ learning and potential achievement. We also explore why, despite
strenuous criticism and moves towards egalitarianism in schools, the segregation of students
on the basis of ‘ability’ continues to be a common feature in schools in the UK. This literature
review draws attention to a number of substantive issues including (but not restricted to) fixed
and permanent grouping; the potential misplacement of students to sets and a culture of
stereotyping where learners within a set are taught as a single homogenous unit. We conclude
the paper by suggesting foci for future research in the hope of eliciting renewed critical
interest in and investigation of setting by ‘ability’ in a broader range of subjects of the
curriculum.
Introduction

In the UK government “achievement-based priorities” (Boaler, 1997a, 577) and guidelines (Department for Education and Employment (DfEE), 1997; DfEs, 2005) have encouraged the use of setting in schools (whereby students are grouped according to their abilities in particular subjects) as a “panacea to underachievement” (Boaler, 1997a, 577). The emergence and proliferation of setting by ‘ability’ in primary and secondary schools in the UK has been explicitly advocated with the assumption that the differentiation of students by ‘ability’ can help to: “Build motivation, social skills and independence; and most importantly can raise academic standards because students are better engaged in their own learning” (DfES, 2005, 58). Moreover, it is claimed, amongst other things that setting can facilitate teaching by reducing the heterogeneity of ‘ability’ in a learning group (Macintyre & Ireson, 2002), enabling teachers to differentiate content, learning outcomes, teaching methods and pace more precisely to the aptitudes of the students (Cahan, Linchevski, Ygra, & Danziger, 1996). The contention is that ‘ability’ differentiated provision thus reduces the likelihood that students will become overwhelmed by learning material that is too difficult or be bored by material that is too easy (Hallinan and Sorensen 1987; Chisaka, 2002).

The relative merits of ‘ability’ grouping in schools are, however, a matter of longstanding and vociferous debate in the educational literature. Indeed, although the DfEE (1997) and the DfES (2005) suggested that schools should consider the use of setting by ‘ability’ as a means to ‘driving’ up standards of attainment in schools, a corpus of research evidence (e.g. Slavin, 1987; 1990; Kulik and Kulik, 1982; 1992;...
Ireson & Hallam, 1999) has disputed the educational value of ‘ability’ grouping, demonstrating little systematic evidence that setting delivers “a net improvement in student attainment” (Gillborn & Youdell, 2001, 86). Moreover, in the UK current policies express a commitment to inclusivity and individualism; the idea that ‘all’ students, irrespective of background, have the same chances to advance to the top, experience success (Evans, Rich, Allwood & Davies, 2007), and develop their skills to a level commensurate with their abilities (Penney & Harris, 1997). Despite such ostensible aspirations, there is compelling evidence that setting allocation procedures are biased against some groups of students (Hallam & Ireson, 2007). Lower ‘ability’ groups tend to be disproportionately represented by ethnic minorities (Wright, 1987; Tronya & Siraj-Blatchford, 1993; Ireson, Clark & Hallam, 2002) and children in low socio-economic status (Boaler, 1997a; 1997b; Wiliam & Bartholomew, 2004). Setting has also been implicated in the production of social stigmatisation (Chisaka, 2002), lowered academic expectations (Ireson, Hallam & Plewis, 2001), decreased motivation (Saleh, 2005) and disenchantment among students in lower groups (Gillborn & Youdell, 2001). Notwithstanding of an extensive academic discourse (e.g. e.g. Slavin, 1987; 1990; Ireson & Hallam, 1999) that promulgates that structured ‘ability’ grouping does not “raise academic standards” (DfES, 2005: 58) (the rationale which serves to validate the widespread adoption of setting) the practice of setting continues to pervade the school system in the UK. Specifically, setting is most prominent in secondary schools and normalised in subject areas including Mathematics, English and Science.

We might reasonably ask why then, despite overwhelming and unambiguous research evidence, such organisational strategies have become institutionalised, routinized and normalised practices in so many schools in the UK. According to Kelly
“(1978, 6) ‘any evaluation of streaming [read setting] must begin with a consideration of why it was introduced in the first instance, since one must look very closely at the assumptions upon which it was and in some cases still is based’. The purpose of this paper is therefore twofold; we start with a broad literature review of discussions about setting to identify what we know, what still needs to be known and whether setting as enacted in classrooms is achieving the basic features which ultimately justify its existence in schools. Subsequent to this analysis we endeavour to challenge a number of assumptions regarding the nature of ‘ability’ that have typically remained unproblematised and suggest a need for research on setting to engage with the concept of ability in a more critical way. Specifically, the paper addresses the following questions:

1. How do teachers’ pedagogic practices within low, middle and high sets facilitate and/or inhibit student learning?

2. How is ‘ability’ conceptualised amidst dominant discourses of setting?

3. Is setting, as enacted in schools, succeeding in achieving the aims and assumptions upon which it is founded? – Namely, to advance students’ “motivation, learning and attainment”? (DfES, 2005, 58).

4. With a significant body of research evidence questioning the educational value of ‘ability’ grouping, why does the use of setting continue to be a common feature in primary and secondary schools in the UK?

Method

Search and selection criteria

In considering the effects of ‘ability’ grouping we were mindful that the organisation of students in schools differs between the UK and internationally (Ireson & Hallam,
Research from the USA was excluded from the literature search on the basis that the predominant form of ‘ability’ grouping utilised is streaming, a process whereby, students are separated by academic ‘ability’ for all subjects within a school (Gamaran, 1986). This literature review focuses on setting as opposed to streaming and/or tracking for two reasons. Firstly, setting is the prevailing form of ‘ability’ grouping in the UK in most subjects and the “preferred approach by governments” (Abraham, 2008, 855). Secondly, we focus on setting in the UK to ensure that the findings we draw upon are not confounded by cultural equivalences in educational systems, policies and cultural attitudes. This is not to suggest that the effects of streaming (or other forms of grouping) are any less significant, rather it reflects our view that adequate investigation of other forms of grouping would require a separate review. In this regard intervention studies were only eligible for inclusion in our review if they were located in primary, middle and/or secondary schools in the UK. No date restrictions were applied to our inclusion criteria. Lastly, the literature on ‘ability’ grouping is substantial. Due to word count restrictions we only have sufficient space to focus on one or two facets of ability grouping debates – students’ and teachers’ perspectives on, and experiences of setting. This literature review is concerned with ‘experiences’ and therefore studies that did not focus on the perspectives of students and/or teachers were excluded from analysis.

In an endeavour to locate relevant empirical research to inform this literature review initial electronic database searches were directed by the use of inclusion criteria and specific key terms (ability grouping, setting, UK, schools, experiences) extracted from the proposed research questions. These five conceptual components were subsequently translated into five electronic databases (Applied Social Sciences Index and Abstracts (ASSIA), British Education Index, Emerald, Zetoc, Current
Educational Research in the UK (CERUK)) and four online journals (British Educational Research Journal, Journal of Curriculum Studies, British Journal of Educational Psychology, International Journal of Research and Method in Education). This search strategy yielded thirty-two references of potential relevance. Specific efforts were made to identify grey literature not identified in initial electronic searches via an electronic database that records details of unpublished reports: System for Information on Grey Literature in Europe (SIGLE). We found one unpublished paper through this search method. Reference lists of pertinent retrieved articles were also scrutinized to seek out further relevant research. This process generated a further five articles. Finally, contact (via e-mail) was made with authors of papers that had met the inclusion criteria to identify further publications that may have been disregarded or missed by our search strategy. This approach yielded one research article. Once titles, and where obtainable, abstracts were assessed, hard copies of the thirty-nine papers were retrieved and examined in detail. Of these papers ten studies met our requisite inclusion criteria and were accordingly included in our literature review (see table 1).

(Insert table 1 here)

Study characteristics

The methodological details of the studies included in this literature review; their designs, context and participants are described in table 1. The studies that we draw upon to address our specific research questions share important methodological commonalities. First and foremost, the empirical data used to inform this literature review are located in schools in the UK. For the most part researchers have considered the experiences of ‘top’ and ‘low’ set ‘primary’ and ‘secondary’ school students in
‘Mathematics’, ‘Science’ and ‘English’. A relatively lesser emphasis is given to the
setted experiences of middle set students and the experiences of setted students in
subjects beyond Mathematics, English and Science. Importantly, therefore the
findings of this literature review are discussed in relation to UK primary and
secondary school Mathematics, English and Science classroom contexts.

**Extraction**

Subsequent to the identification of ten research papers, a systematic process of
inductive thematic coding was employed for analysing the data-set. Principally, the
results of the research papers were rigorously read and re-read multiple times in order
to identify potential themes, patterns and inconsistencies within and across the data
set. These patterns were interpreted and assigned a label. All data related to the
emerging pattern were extracted directly from the selected articles and aggregated to a
structured summary table under the identified theme. This process not only made
possible the identification of commonalities permeating the data, but also enabled the
comparison and synthesis of the data-set. Where patterns from the research article
appeared incompatible with the emerging theme, additional themes were developed to
define these patterns. Although we did not utilise any pre-conceived categories for
data analysis; preferring themes to emanate directly from the data, it is important to
note that data were analysed by coding with reference to a narrow selection of issues;
namely – students and teachers experiences of setting. Three main themes were
identified and form the basis for the discussion of findings that follows.

As mentioned previously there is insufficient space to do the range of ‘ability’
grouping discussions and research conclusions justice here. Although there is now a
vast international literature on ‘ability’ grouping it is noteworthy that there has been a
relative paucity of research in either primary or secondary school contexts which has
explored teachers’ and/or students’ experiences of ‘ability’ grouping (Hallam, Ireson
& Davies, 2004). Our focus seeks to respond to this situation, directing attention to
students’ and to a lesser extent, teachers’ experiences of setting as a form of student
organisation and differentiation. Clearly, it could be argued that a dearth of critical
substantive research on students’ experiences of setting points to a need for more
empirical work in the sphere, rather than a literature review of the small cadre of work
that already exists. However, there is also an argument to be made for accumulating
as much data as possible to establish what we already know and what remains to be
learned (Wilkinson, Littlefair & Barlow-Meade, 2013). The latter position informs
this literature review. Central to our analysis, is the conviction that the way in which
‘ability’ is conceived and applied in decisions about setting may be notably limited
and narrow. We point to a need to deconstruct and consider critically the ways in
which inherently inequitable and exclusionary categories of ‘ability’ are generated
(e.g. through testing mechanisms) and endorsed through the practices and processes of
setting (Evans, Davies & Wright, 2004).

Critical review

Allocation to Groups and Movement between Groups

One aspect of setting that surprisingly, has received very little research attention is the
basis upon which students are allocated to sets. We specifically highlight this issue
here because of the indication that follows, that there is a lack of student mobility
between sets. This points to the significance of students’ initial allocation to a set in
relation to how they are positioned within the school system and the sorts of learning
opportunities that they will have access to, and thus, to the need for critical
investigations of the criteria and processes associated with setting decisions. Notably, Davies, Hallam and Ireson (2003) and Macintyre and Ireson’s (2002) studies revealed that children are in many instances allocated to sets on somewhat arbitrary characteristics including behaviour and motivation. As Hallam and Ireson (2007, 28) acknowledge; “given that set placement can have profound and potentially damaging consequences for an individual” including placing a maximum grade on what a student can achieve “it is of great concern that allocation to sets is not based entirely on academic achievement or perceived ‘ability’”. It is clear that ‘some’ students could have their educational and achievement possibilities unjustly inhibited through incorrect set placement that places them in a “markedly disadvantaged position in relation to their final tier of entry into General Certificate of Secondary Education” (Gillborn & Youdell, 2000, 113).

The importance of students being able to move sets has been stressed for the successful operation of structured grouping systems (Ireson & Hallam, 1999). However, although flexibility is emphasised in assumptions about setting, evidence emerged in Macintyre and Ireson’s (2002), Hallam and Ireson’s (2006) and Hallam’s and Iresons’ (2007) research that once allocated movement between sets is rare. Their research reveals a absence of systems in place to facilitate the re-grouping of students to sets and the lack of regular reconsideration of children’s achievement as a basis for correct placement in sets (Macintyre & Ireson, 2002; Hallam & Ireson, 2006). Hallam and Ireson (2007) discovered that even when teachers are aware that students are wrongly allocated to sets the students may not be assigned to another group. Teachers in Macintyre and Ireson’s (2002) and Hallam and Ireson’s (2007) studies cited a lack of flexibility, time pressures and differences in content covered in low, middle and high ‘ability’ sets for a lack of vertical mobility between sets. The inferior instruction
received by students in lower sets, a slower pace of working and exposure to different
curricula serves to progressively widen the achievement gap between students in low
and high ‘ability’ sets (Gillborn & Youdell, 2000). Amelioration from low ‘ability’
sets is thus highly unlikely as a student transferring up will not have covered the
equivalent material required for the class they are joining (Boaler, Wiliam & Brown,
2000). As Gillborn and Youdell (2000, 126) contend “it may be, therefore that even
when movement does occur, the likeliest destination is downwards”. The practices of
setting thus appear to create fixed boundaries where developing capacity seems to
have a very limited relevance or utility (Wright & Burrows, 2006). Although
subsumed under the guise of setting as opposed to streaming, and signalled as a
radical departure from its predecessor streaming, it appears that setting as enacted in
schools embodies one of the most harmful features of streaming - its inflexibility.
This makes the initial selection of students to sets decisive in relation to their
‘learning futures’. This point is reaffirmed by Gamoran’s (1986) finding that ‘ability’
grouping in primary schools constituted a consideration in placing students in
secondary school sets. Given the lack of movement between sets discussed above, it is
conceivable that students placed into a low set at an early age and characterised as
lacking ‘ability’ will continue to be placed in low sets throughout their school
existence. As Miah and Rich (2002) cogently argue, however, there are serious issues
of premature distinction and stratifications taking place in that some abilities might be
missed that may later develop in young people. We might reasonably assume
therefore that a student’s initial group placement will have considerable implications
for their eventual levels of achievement (Gilborn & Youdell, 2000). Further
longitudinal studies are however, needed to establish the cumulative effects of setting
over the years of schooling.
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Setting and pedagogy

254 Given the apparent lack of rigor and reliability in mechanisms for allocating students to particular sets it is possible that, within even the narrowest setting system, a set will contain students with considerable variations in attainment as well as learning style (Boaler et al. 2000). It is therefore highly problematic to assume and treat setted students as intellectually homogenous (Ireson, et al. 2002). Nonetheless, Boaler, (1997a; 1997b) in observations of teachers in Mathematics found that setted lessons were conducted as though students were not merely similar, but identical, in terms of learning style, pace of and preferred ways of working. Teachers in Boaler’s, (1997a; 1997b) study overlooked the individual needs and abilities of students preferring to pitch the lesson to an “imaginary average pupil” (Boaler, 1997a, 593) who works at a certain pace and in a certain way (Boaler, 1997b). Teachers responded to setting by embracing a ‘one size fits all’ approach to teaching in terms of both content and pace.

260 All students within a set were given identical work to complete at the same time and at the same speed whether or not they found it easy or difficult (Boaler, et al. 2000). In this way, students were not required to complete work at their own pace but rather complete work at the pace of the set in which they were placed (Boaler, 1997a; 1997b; Hallam, Ireson & Davies, 2004).

267 The problems of setting associated with a lack of differentiation within any specific setted class group are exacerbated further by virtue of the tendency for teachers’ expectations about pace and level of work appropriate to the learning capacities of students in high and low sets to be stereotypical and fixed (Boaler et al. 2000; Macintyre & Ireson, 2002). In Boaler et al.’s research top set students were regarded as a group who did not experience problems or mistakes and did not need help or time
to think; “you are set 1 you shouldn’t be finding this difficult” (p. 641). In Boaler’s (1997b) earlier work, some top set students reported that their mathematical learning experiences were so stressful that they were unable to learn any mathematics. As such the top set classroom environment in Boaler’s (1997b) study was characterised by a fast pace where students were expected to rush through learning materials without necessarily achieving understanding. The prescriptive pedagogy exposes students to rote learning orientations and surface learning where students only acquire sufficient knowledge to complete tasks. Such teaching methods further preclude the development of thinking, problem solving and a deep understanding of the learning materials. Indeed in observations of Mathematics classroom teaching Boaler, (1997b) discovered that students learned a method without an understanding of how it might be used.

In contrast to the heightened expectations for students located in high sets, Boaler and colleagues’ research (Boaler, 1997a; Boaler et al. 2000) found that teachers had limited expectations for work and learning in low sets. The students in the low set were perceived to be incapable of independent thought and were reduced to copying off the board or textbooks for the majority of lessons. The fixed pace of the lesson was also a significant problem as many students in the low set who had completed work in the first five minutes of the lesson sat and waited with nothing to do for the remainder (Boaler, et al. 2000). Indeed, the undifferentiated approach had important implications for the learning of students across the ‘ability’ spectrum. With a small number of students serving as reference points for the speed of the class (Boaler, et al. 2000) some students were frustrated at having to wait for slower students to catch up, many found the pace of the class anxiety provoking and confusing, and others in the
same set found the pace of working and high expectations motivating (Hallam & Ireson, 2006).

Contrary to the theory that the students most advantaged by setting are those most able, the data from which this literature review is based suggests that those students most advantaged are those who can assimilate material at a sustained high pace (Boaler, et al. 2000). Accordingly, any student who deviates from the “prototype model student” (Boaler, 1997b: 173) is disadvantaged. Setting in this regard can be seen to support the learning experiences of a few students (e.g. those who learn at a fast pace and/or whose learning preference aligns with the teaching approach being used ‘for the set’) at the expense of the many others (e.g. students who learn at a different pace and/or have preferences for other approaches). This finding is consistent with Hallam and Ireson (2006) who similarly observed that a great number of students were allocated to groups incompatible with their learning needs. Indeed, as Sukhnandan and Lee (1998) argue setting ignores the fact that students’ rates and styles of learning differ regardless of their levels of ‘ability’. In Boaler’s (1997a) research, a students success (or failure) in the setted system had more to do with their preferred learning style, pace of learning and their ‘ability’ to adapt to the demands of the set in which they were placed than their ‘ability’ or effort. Thus, there is research evidence to support a proposition that it may be more appropriate to group students by learning style and pace of working than their perceived ‘abilities’.

Stigmatisation

Research has also revealed the stigmatisation arising in conjunction with setting. Teachers are identified as proffering views that top set students are bright, hard working and interested (Ireson & Hallam, 2005), while those in low sets are
pigeonholed as behaviour problems (Macintyre & Ireson, 2002), lazy and lacking appropriate work ethic (Ireson & Hallam, 2005), and thus of limited ‘ability’. However, had teachers stopped to reflect on these categories the demonstration of a lack of motivation in low sets is perhaps not a reflection of a student’s personality or preferred ways of being or acting (Hart, 1998) but rather a result of their despondency as a corollary of low teacher expectations and the powerful and harmful restrictions on their potential achievement. Contrary to the proposition evident in much of the literature that top set students are advantaged by ‘ability’ grouping and the bottom set students are harmed, there is therefore a range of evidence that links ‘ability’ grouping to harmful learning experiences across the ‘ability’ spectrum for students in low and high ‘ability’ groups (Boaler, et al. 2000). As we discuss below, the main purpose of setting has also been found to be a major source of student disaffection (Boaler, et al. 2000).

Despite the fundamental principles upon which justifications for setting are based, and specifically the rhetoric of ‘raising student attainment’ (DfEE, 1997); it seems highly plausible to suggest that ‘ability’ grouping engenders low achievement, resulting in a “situation where a majority of students achieve well below their potential” (Boaler, et al. 2000, 646). Indeed, students in Boaler’s, (1997b) study explicitly linked their setting restrictions to their own disillusionment, demotivation and underachievement. The implication is that many students wanted to do well but were unwilling to exert effort as their lowly set placement deprived them of access to the highest and higher achievement grades. A continued commitment to setting by primary and secondary schools is thus questioned in light of extensive evidence that has exposed the inadequacies of setting for a pronounced range of learners.

Contemporary practices of setting do not seem to have been informed by or grounded
in what we know from systematic research and practice (Boaler, 1997b). Why then, as 
Boaler (1997b) asks, do these organisational strategies and processes persist in UK 
schools? And why have politicians, education policy-makers and practitioners 
invariably uncritically accepted and/or ignored the limitations of setting without 
questioning the veracity of the process or its implications for students’ affective 
and/or academic outcomes? There are several possible answers to these questions. 

According to Boaler (1997b) the fact that schools are largely prepared to disregard 
the limitations of setting can be linked to a conviction across the educational 
community that setting raises academic standards, at least for those high attaining 
students. Boaler, (1997b) further suggested that by placing this notion within a 
climate in the UK in which schools are exhibiting a concern for those students who 
can gain them market place GCSE grades A, B or C a commitment to setting becomes 
easier to comprehend. We present another explanation, citing how ‘common sense’ 
assumptions about ‘ability’ confer legitimacy on the institutional practices of schools 
that lead to student failure and inequities in the acquisition of educational 
qualifications (Evans, 1993).

An alternative interpretation of ‘ability’

As a notion that characterises contemporary education policy and practice ‘ability’, as 
Evans and Davies (2004, 6) remark, “has come to be understood by policy makers, 
politicians and practitioners” as “proxy for common sense notions of intelligence” 
(Demaine, 2001, 2). Indeed, Hay (2005, 44) suggested that the prevailing view of 
‘ability’ circulating in schools appears to be rooted in the “positive eugenic 
perspective”. An assumption of this perspective is that ‘ability’ is an inherent and 
relatively immutable capacity, amendable to varying degrees by interventions such as
education (Hay, 2011), and which can be measured reasonably accurately through (for example) written examinations (Gillborn & Youdell, 2000). However, as Hay (2005) comments this way of thinking about ‘ability’ implicitly presupposes that poor achievement in an assessment task reflects the learners predisposed ‘ability’ and therefore is an indication of limited talent or lack of motivation or effort.. Differences in achievement are therefore likely to be justified as an inevitable consequence of natural variations in ‘ability’ or in terms of a students’ incompetence’s and/or personal limitations (Wellard, 2007). According to Hay (2011, 97) these enduring understandings about ‘ability’ and assessment are exclusionary because “the differences in a young person’s potential, progress and performance in schools are largely assumed and uncritically accepted to be the outcome of natural and largely measurable factors”. One of the most crucial limitations of this perspective is that it abstracts the analysis of the educational and organisational processes (e.g. grouping policies) and the mechanisms (e.g. the assessment processes) that generate, differentiate and in some cases constrain the achievement opportunities available to students in schools (Hart, 1998; Wilkinson et al. 2013). In an educational climate which validates educational achievement and/or underachievement by recourse to natural and inevitable variations in predisposed ‘ability’ (as opposed to the inequitable effects of educational practice), it becomes easier to understand why the discriminatory and exclusionary effects of prevailing orthodoxies in schools (such as setting) remain unquestioned and unremarked (Gillborn & Youdell, 2001).

In studying the relationship between ‘ability’ grouping and social inequalities researchers have tended to limit their inquiry to highly formalised grouping processes whereby students are allocated to sets on the basis of their results in tests and exams. Although Hallam, et al. (2008) found that placement in practically based subjects (e.g.
arts and sport) are invariably based on classifications derived from academic subject
groupings, evidence also indicates that in subjects where there are no requisite exams,
student grouping arrangements becomes the responsibility of individual teachers.
Further, the tiering of exams\(^2\) requires teachers to make firm and informal judgements
about students’ abilities, set placement, predicted grades, and ultimately examination
entries (Gillborn & Youdell, 2001). What ‘counts as ‘ability’’ in the minds of teachers
is therefore likely to play a critical role in the differentiating processes of students
within schools. Assessment is thus likely to include subjective appraisals of students
against standards and criteria (Hay, 2008), inherent in which are embedded (and
invariably narrow) views about ‘what signifies “ability”’ (Penney & Evans, 2004). To
quote Gillborn and Youdell (2000, 140):

The apparently concrete nature of each predicted grade when presented in written
form belies the uncertain and subjective nature of the processes that lie behind its
production. There is considerable scope for racialized interpretations of ‘ability’,
motivation and effort inadvertently to influence the kinds of grades produced.
This infuses the process with additional possibilities for predictions that are
inequitable or even discriminatory.

Given that there is a body of evidence which suggests that categories of ‘ability’ and
predicted grades can reflect inferences based on students’ gender, class and ethnic
origin it is concerning that research on ‘ability’ grouping in the UK and
internationally has raised so few questions about the nature of ‘ability’ (itself), how
the recognition of and for abilities are established and conferred, through, for
example, testing mechanisms and teachers’ predicted grades (Wright & Burrows,
2006; Penney & Hay, 2008), and the potentially limited/flawed conception of ‘ability’
that is informing these measures/judgements. The work of Gillborn and Youdell
(2000; 2001) is a notable exception in research on setting. Consequently little is
known at present about how extraneous factors, such as social and personal
characteristics of the student, and social criteria, such as teachers’ values and
assumptions about the nature of ‘ability’ enter into processes of selection and
differentiation in school curriculum contexts (Kelly, 1978; Evans, 1993); how race,
gender, social class and disability co-mingle in this process; and how testing
processes themselves encode and endorse particular expressions of ‘ability’ (Miah
and Rich, 2006). By questioning the socially and artificially determined practices of
teachers, including, for example, how they group or stratify students by ‘ability’ in a
range of subjects we can develop a more nuanced understanding of how and why the
abilities of certain students and groups of students are benefited and/or disbenefited in
setting decisions (Evans & Davies, 2004).

It is important to note that assessment procedures themselves construct “realities
around how we understand “ability”’ (Miah & Rich, 2006, 267). For example, formal
tests (e.g. written examinations); purportedly used to gauge an apparently unequivocal
and objective measure of ‘ability’; and the devices upon which selection decisions are
conventionally based only measure a finite range of abilities (Gillborn & Youdell,
2001). As Hay and Penney (2013) have emphasised, no such range is neutral and all
measures need to be recognised as value laden and by definition, destined to privilege
some ‘abilities’ over others. Thus, an important point to consider is that assessing
students against broader definitions of ‘ability’ and evaluative criteria (e.g. the ability
to think rationally and insightfully) may well result in ‘more’ or ‘different’ students
being considered ‘able’ which might not have been the case had the focus of
assessment been upon the ability to recall information in formal examinations
(Theodoulides, 2012). Hay and Penney’s (2013) emphasis that the pedagogy of
assessment need to also be acknowledged as integral to assessment operating as a message system that advantages some students over others, prompts critical engagement with both the content and mode of assessment associated with the setting process. Their work points to the need to deconstruct all aspects of assessment in relation to the learning opportunities that are either enabled or denied amidst setting as a pedagogical event and process, and the merit in foregrounding a socio-cultural perspective in our analyses.

The latter directs attention specifically to assessment and setting as fundamentally tied to the reproduction of established educational and social divisions and hierarchies, and in this regard from the research reviewed, it seems reasonable to suggest that the shortcomings of systems for allocating students to particular sets could lead to a disjunction between a student’s ‘ability/ies’ per se, their location within a set, and thus their final tier of entry into GCSE exams. As Hay and Penney (2009; 2013) identify, the shortcomings are not merely matters of reliability. Rather, they are arguably better conceived in terms of efficacy, with that bringing to the fore a need for a focus on learning, together with issues of authenticity, validity and social justice in assessment (Hay & Penney, 2009; 2013). From this perspective the uses of standardised tests do not necessarily signify a students’ ‘ability’, nor necessarily enable many students to effectively demonstrate their abilities. The results of such tests provide a measure which gives some insight about a child’s present development level and previous learning. In this regard ‘ability’ tends to be conceived more in terms of current achievement than the potential to achieve (Bailey, Morley & Dismore, 2009). Thus, we echo the views expressed by Gillborn and Youdell (2000) and Hallam, et al. (2008) who vividly point out that both the testing mechanisms and the practices of setting seem to have been based on common sense notions of
intelligence as an immutable potential and as such reveal little about a student’s latent learning potential or future academic achievement. In addition, as Ireson and Hallam, (1999, 150) comment “the use of such testing mechanisms bases the allocation of students to sets on an assumption that general intelligence is a single entity that predicts achievement at school”. Indeed it is now widely accepted that students do not have a fixed ‘ability’ that is determined at an early age (Boaler, 1997b), rather an individual’s ‘ability’ varies across time and can be attenuated through learning and effort.

Setting and subjects

Although contemporary UK theorising has posed challenging questions of students’ setted learning experiences, such analysis has, with very few exceptions been confined to Mathematics (e.g. Boaler, 1997a; 1997b; Boaler, et al. 2000) or English, Mathematics and Science research contexts (e.g. Hallam & Ireson, 2003; 2005). While setting is most prevalent in the aforementioned subjects, there is some evidence to suggest that stratification and ‘ability’ grouping, along with the labelling and segregation of the ‘gifted and talented’ and ‘low attainers’ (Evans, 2004) are increasingly features of Physical Education (PE) departments in secondary schools in the UK (Penney & Houlihan, 2003). Such a finding contrasts with Hallam, et al (2008) who argues that practically based subjects (e.g. PE, Art, Music) rarely utilise grouping by ‘ability’. By restricting theoretical and empirical attention to a ‘few’ subjects in the curriculum there is a conspicuous and arguably significant absence of research that explores students’ setted experiences in for example, PE, Music and Modern Languages. There are strong arguments for researchers to go beyond a single subject focus to question the implications of thinking and practices in various
curriculum areas in relation to students’ experiences of setting and to pursue for example, how or whether the processes described in English, Mathematics and Science classrooms are similarly evident in the subject areas of, for example, PE, Modern Languages and Humanities, or whether processes in such subjects are informed by and/or convey different messages about ‘ability’. Thus, we see merit in research that seeks to explore how the dominant culture of ‘ability’ grouping within schools and contemporary educational systems impacts students engagement in and experience of multiple subject domains, and similarly, how it influences teacher pedagogy in subjects other than English, Mathematics and Science specifically with regard to the criteria teachers routinely employ to measure ‘ability’ and select and position students for teaching purposes. Such research in our view has an important theoretical and empirical role to play in informing a deeper and more holistic explication of the processes of ‘ability’ grouping in schools both in the UK and internationally.

Conclusion

In spite of the rhetoric of standards, individualism and inclusivity (defined as providing opportunities for all students) (Evans et al. 2007) that circulate within contemporary education discourse, the evidence presented in this literature review suggests that the practices of setting, in their effect and outcome, are a major factor in hindering the achievement of these ideological intentions (Thomas, 1993). The opportunities to receive high achievement grades are not the same for all students as placement in low sets and a lack of mechanisms for re-allocation set impenetrable restrictions on examination entry and access to A*-B grades (Gillborn & Youdell, 2001). In this regard a student’s initial set (mis)placement is likely to have a critical
effect on their potential attainment as a student placed in a low set is entered for an examination which denies the possibility of attaining the higher grade passes (Gillborn & Youdell, 2000). This is even more concerning in view of Davies et al. (2003) and Hallam and Ireson’s (2007) finding that students may be allocated to sets on the basis of arbitrary aspects such as their behaviour (as opposed to measured attainment or ‘ability’). The misplacement of students to low ‘ability’ sets is a very real problem with potentially severe long term deleterious effects including admission to low tiered examination papers; papers which provide access to grades that have little or no credence in the job and Higher Education Institution markets (Fitz, Davies & Evans, 2006). We suggest that many students may be underachieving in schools not because they lack ‘ability’ per se but rather because their achievement potential is proscribed by systems of judgement that are not inclusive of diverse abilities, set placements that lack reliability and efficacy (Hay & Penney, 2009; 2013) and a lack of upward mobility. Collectively, these characteristics serve to explicitly preclude many students from access to the learning opportunities and higher qualifications that demarcate educational success and failure in schools. In this regard, although established with the explicit agenda of raising standards, it appears conceivable from the evidence presented in this paper that contemporary practices of setting in fact engender low achievement at least for some students in schools in the UK.

Notes

1. The General Certificate of Secondary Education is an academic qualification usually taken in a number of subjects by students aged 14-16 in secondary education in England, Wales and Northern Ireland.
2. We use ‘tiering’ to denote the process whereby teachers allocate students to a particular difficulty level (tier) of a test. English and Science GCSE exams are formally examined in two tiers: foundation and higher. Students entered for the higher tiered exams have access to grades A*-D. However, any student who takes a higher exam and does not get at least a D attains a U grade. Those students entered for the foundation paper in GCSE Science and English have access to grades C-G. In 2006 GCSE Mathematics changed from a three tier system; foundation (D-G); intermediate (B-E); and higher (A*-C) to the standard two tiers outlined above. In the three tiered system students entered for the foundation Mathematics exams could not achieve a C grade.

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Table 1