

What is the role of attainment banding in promoting pupils' progress in mathemati...



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What is the role of attainment banding in promoting pupils' progress in mathematics?

Attainment banding within education in England, especially in Mathematics is a controversial topic especially because of the findings that highly attainment pupils' tend not to be challenged sufficiently to deepen their thinking in mixed-ability teaching (Ofsted, 2012). In 2012, most schools visited by Ofsted had attainment grouping from year 7 depending on teacher assessments, primary school information and national exams which would then cap their attainment potential due to the capped mathematics that they would be taught. Because in England the dominant mindset is that each person has a stable mathematical ability which Boylan and Povey (2014) called 'ability thinking', ability grouping was often believed to be true. Also, in 1997 the Department of Employment and Education stated 'unless a school can demonstrate that it is getting better than expected results through a different approach, we do make the presumption that setting should be the norm in secondary school' which would explain the strong support for attainment banding in the UK. (Department for Employment and Education, 1997)

The definition of banding is dividing the year group into bands differentiated by ability. Within each band, the pupils are grouped depending on ability or size. Setting can be used to group pupils in bands according to their ability in a subject as defined by HM inspectors of schools (HM Inspectors of Schools, 1979). For this literature review, it will be assumed that setting is used within bands.

An international study by Organisation for Economic Co-operation and Development (OECD) has recommended differing pupils grouping until upper secondary school due to negative impact on pupils' attainment in lower ability groups without raising the attainment of all pupils. The negative impact of grouping could be reduced by reducing the duration of the grouping, increasing the opportunities are available to change grouping and ensuring a high curricular standard for all pupils. ( OECD, 2012)

Hallam and Ireson (Hallam & Ireson, 2003) found teachers believed that ability grouping benefited the higher attainment groups as it protected them from negative peer pressure while maximising their attainment. However, the lower attainment groups were more likely to suffer from low self-esteem and feel alienated thus resulting in challenging behaviour. More research is needed to establish if teachers' belief is influenced by their current teaching environment or they want a teaching environment conducive to their philosophy of education. Mathematics was considered to be benefiting from attainment banding as it is regarded as a subject that builds directly onto previous knowledge.

Halle and Ireson (Hallam & Ireson, 2003) found that students in low attainment groups or who achieved low scores in national exams whilst studying in a mixed attainment groups tended to favour mixed attainment groups

Ball (Ball, 1981) research found that banding resulted in an increase in behavioural issues which resulted in disruptions in lessons of moderate attainment groups as teachers found difficulty in maintaining control,

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meanwhile low attainment groups had less behavioural problems. The behavioural problems that teachers had with mixed attainment banding was because they were not differentiating between mixed attainment teaching and mixed attainment banding which influenced the link between behaviour and grouping rather than the teaching style. The mixed attainment banding teaching style required a different teaching syllabus to attainment banding to ensure that every pupil regardless of attainment levels feels their educational needs are met which was attained by the use of worksheets. Mixed attainment banding improved behaviour but the hierarchy of pupils' attainment across the bands was the same as the attainment banding. However, as this research is more than 30 years old, it does not provide the full accurate differences between attainment banding mixed attainment banding.

Ireson, Hallam and Hurley's research found that banding had little impact on attainment and 'no differential impact on high and low attaining students'. They also found that pupils who have similar previous attainment but are placed in different bands, the ones in higher bands tend to achieve higher grades. This means that if a pupil is placed in incorrect band they are likely to stay in that band limiting their attainment potential as pupils in lower bands tend to have less access to the curriculum and there was less differentiation in the classroom with the whole class treated as all with the same attainment level. (Ireson, et al., 2002). Also, the band the pupil is in is not only influenced by their attainment but also by social behaviour factors, classroom size and teacher's availability and beliefs about students which could be influenced by cultural stereotypes. (Ireson & Hallam, 2001). This

may explain why in entry to high mathematics test tiers Black-Caribbean students are under-represented relative to White British students who achieved the same attainment level at previous national exams. (Strand, 2011). Also, low attaining bands had less access to the curriculum due to lower expectations of them and sometimes had less experienced teachers who did not use differentiation in the classroom as everyone in that band was expected to be at the same attaining and motivation level. Gamoran and Berends found that banding alienated students and influence anti-school attitudes however, it could be a reflection of social alienation in the banding procedures (Gamoran & Berend, 1987).

William and Bartholomew found that attainment banding had no effect on achievement but produced a bigger spread of achievement within the same year group as higher bands tended to achieve a 0.5 grade high in GCSE than their expected grade which depended on KS3 results whereas lower attainment bands tend to achieve a 0.5 grade lower than their expected grade at GCSE (Dylan & Bartholomew, 2004) which means that those that were previously high attainers had limited benefit from grouping unlike low attainers who suffered. This is consistent with Bursten's findings that the greater the difference between classes of the same year group the a worse the country's overall level of mathematical achievement (Burstein, 1992)

(Ireson , et al., 2004)

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