<CT>The problematic interface between research, policy and practice: The case of attainment grouping

Professor Becky Francis, Director, UCL Institute of Education, UK

Dr Becky Taylor, Researcher Practitioner, UCL Institute of Education, UK

<A>Abstract

Evidence-based practice in schools has been a key theme for governments since 1997, yet we still have a long way to go in seeing this realised. In this article we focus on the 'fit' between research findings and educational structures as one explanation for the research—practice gap, focusing on the case of grouping by attainment to illustrate our argument. Research has consistently shown that while grouping students by attainment (e.g. setting or streaming) confers a small benefit on high-attaining students, it causes greater detriment to lower-attaining learners for progress and attainment. Despite this, schools persist in grouping students by attainment. Drawing on experiences from our Education Endowment Foundation-funded study 'Best Practice in Grouping Students', we examine some key reasons why research has not yet translated into practice: mixed messages from government, challenges with the body of research, school leaders not always being aware of what happens in classrooms, school structures dictating grouping practices and knock-on effects of contextual factors. Finally, we offer some research-informed recommendations as to good practice in the area of attainment grouping.

<A>Background

Since 1997, UK governments have advocated evidence-based practice in English education policy (DfE (nd); also see Ball (2013) and Whitty (2016) for a discussion). This has had a noticeable impact in schools: 64% of school leaders say that they have accessed the Education Endowment Foundation Toolkit (Higgins et al., 2015) to inform spending on Pupil Premium (National Audit Office, 2015), and a number of organisations and blogs exist to share and promote research evidence for teachers, most notably ResearchED (ResearchED, 2016). However, we have yet to see this translation of research into practice realised. In this article, we use the example of attainment grouping as a case with which to explore this challenge.

While comprehensive education to age 16 is the norm for most young people in England, segregation by attainment predominates in secondary schools, and increasingly in primary. The vast majority of our state schools have comprehensive entry; nevertheless, overwhelmingly these operate *in-school* segregation. In secondary schools this is usually in the form of setting, where pupils are grouped by prior attainment for certain subjects, while some schools practise streaming, where pupils stay in the same 'ability' groups for most subjects, and many operate a mixture of the two (Taylor et al., 2017). In primary schools, segregation by attainment usually takes the form of within-class 'ability tables'; however, research indicates that setting and streaming are also increasingly practised (Hallam and Parsons, 2013b; Hallam and Parsons, 2013a).

Where segregation by attainment is used, there is often conflation of the concept of prior attainment with 'ability'. Young people enter the education system from very different background circumstances, resulting in different starting points, so to see their attainment as an indicator of raw ability is clearly problematic. We prefer to employ the term 'grouping by attainment' wherever possible, as we reject conceptions of 'ability' as ascribed and fixed; rather, we see ability as malleable, and prior attainment as reflecting a range of societal factors that impact on educational progress and outcome. However, the term 'ability grouping' – and indeed 'mixed ability' grouping – is so prevalent in the research literature and in practice that it is sometimes hard to avoid.

Despite the prevalence of grouping by attainment, long-standing international evidence shows that this practice does not have a significant impact on outcomes overall; further, it has a significant negative impact on those in 'low ability' groups, who make less progress than peers in higher attainment groups, and who perform better in mixed attainment classrooms. The Education Endowment Foundation Toolkit states that:

On average, studies show that higher attaining learners make between one and two additional months' progress when set or streamed compared to when taught in mixed ability groups. [...] Low attaining learners 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. (Higgins et al., 2014, p.34)

Slavin's (1990) systematic review of international research found that the effects of ability grouping on achievement are statistically insignificant, and more recent studies (Steenbergen-Hu et al., 2016) have confirmed this (although conclusions are not without contention). This overall finding could be interpreted as suggesting that ability grouping neither helps nor hinders, but as we shall see, there is a negative impact for the smaller proportion of pupils in lower sets, a majority of whom are shown to be from low socio-economic backgrounds.

<A>The significance of attainment grouping

Educational attainment in England is highly stratified by social class. There is an especially strong relationship between family wealth and educational outcomes, and between family wealth and *post*-education occupational outcomes. The significance of this issue for equality of opportunity, social justice and social mobility has motivated government attention towards the socio-economic gap for educational attainment. Obviously, wealth inequality, as well as the impact of socio-economic background on children's unequal starting points when they begin school, has a strong impact on achievement. However, socio-economic attainment gaps widen rather than narrow as children progress through school, suggesting that, if anything, schooling exacerbates rather than mitigates inequalities in attainment outcomes. There are exceptions, of course – the evidence that schools *can* make a positive difference is provided by the many schools that facilitate high achievement for their disadvantaged pupils.

'Ability grouping' is one process that promotes social segregation in schools, with working class pupils – and those from some minority ethnic groups – disproportionately represented in low sets and streams. Although this trend might be predicted given the impact of social inequality on what is often referred to as 'school readiness' (meaning that children from low socio-economic status backgrounds tend to start from a lower baseline), over the past half century, practices of allocation have been consistently shown to be biased and not necessarily reflective of 'ability' or prior attainment (Jackson, 1964; Muijs and Dunne, 2010; Taylor and Sloan, 2016).

Given the research findings cited above, that students placed in low attainment groups make less progress than their peers in higher groups, working class pupils in low attainment groups are subject to a double disadvantage, in that they are disadvantaged on arrival at school, but then subject to practices shown to further limit their chances of progress and attainment. We have conducted a detailed analysis of the research literature and, from this, have distilled seven explanations for poor outcomes of students in lower sets and streams (see Box 1; Francis et al., 2017).

<BOX>Box 1: Explanations for poor outcomes of students in lower sets and streams

- <BL>Students are misallocated to sets/streams based on socio-economic factors
- Once allocated to groups, there is a lack of fluidity, and students do not move between groups
- Quality of teaching is lower for lower sets and streams
- Teacher expectations are lower for lower sets and streams and pedagogy
- Students in lower groups are offered an impoverished curriculum and qualifications
- Student engagement and attitudes to school are poor in lower groups
- A self-fulfilling prophecy is created whereby allocation to a lower set results in poor outcomes.<BOX>

<A>Lack of impact of research on policy and practice

So how can we account for the fact that, in spite of the commitment to 'evidence-based practice' by successive British governments, this research has had so little purchase? We propose the following explanations:

Mixed messages from government

Our analysis of key policy documents and speeches alluding to pupils' grouping since 1997 shows that, within the semiotics of policy discourse, setting has somehow become a signifier for 'academic high standards'. Setting became emblematic of the New Labour 'standards' agenda across the turn of the century. The incoming New Labour government's first White Paper, 'Excellence in Schools', was focused squarely on raising educational 'standards', notoriously using this word 173 times. Setting was notably advocated within the paper as an aspect of this agenda, including a statement that:

[...] 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 schools. (DfES, 1997, p. 38)

So, despite the lack of evidence, we have an association and conflation of setting with 'standards', very evident in the policy documents we analysed (see Francis et al., 2017). This commitment to setting on the parts of both successive governments and of Ofsted, both highly influential on schools, sits in contrast to other messages from government about the need for evidence-based practice (DfE, nd). Hence the case of attainment grouping illustrates how policy recommendations to schools are not always based on research evidence.

Challenges with the body of research

There are some vulnerabilities and challenges within the literature on grouping by attainment that also hinder traction. For example, the literature often conflates different types of attainment grouping, and there is a lack of disaggregation of different factors posited as potentially detrimental. We still need answers to the following questions:

- <BL>Which of these identified explanations have the greatest impact on pupil experiences and outcomes?
- What is the impact on achievement for students in low sets if detrimental setting practices are mitigated?
- What actually constitutes good practice in mixed-attainment teaching and grouping?

• Which of the good practice alternatives is more effective in improving the attainment of low-achieving students?

The lack of clarity can hinder traction on practice, especially when there are few pointers or little systematic research on effective practice. It is surprising how little has been written on best practice in mixed attainment ('mixed ability') practice. Without support and successful exemplars, it is unlikely that many teachers will feel able to embark on new practice, especially when that differs from long-established ways of doing things.

Our present research project, funded by the Education Endowment Foundation, seeks to address some of the identified challenges, especially that of the lack of disaggregation of explanatory factors in the literature. The Best Practice in Grouping Students project focuses on mathematics and English in Key Stage 3. The project comprises two studies with randomised controlled trial design: Best Practice in Setting, a fully-powered RCT involving 126 schools, and Best Practice in Mixed Attainment Grouping, a feasibility study involving 13 schools.

The Best Practice in Setting intervention has set out to mitigate the factors associated with the poor performance of lower sets and streams (see Box 1) by establishing and maintaining sets strictly according to attainment and with a maximum of four levels, and by providing professional development to teachers to encourage high expectations of all students and a flexible approach to 'ability'. These practices are contrasted with a control group, who maintain their usual setting practices.

The Best Practice in Mixed Attainment intervention provided teachers with support for teaching students with a broad range of prior attainment together in the classroom. We developed this support in collaboration with three schools recognised for their excellent mixed-attainment teaching practice. These practices are again contrasted with a control group who maintain their usual grouping practices.

The intervention and control groups will be compared for outcomes in terms of both academic attainment and student self-confidence. Our data collection is now complete and we expect to report on our overall outcomes later in 2018, contributing answers to the questions outlined above: the relative impact of explanations for differences in attainment, the possibility of mitigating detrimental setting practices, characterising good practice in mixed-attainment teaching, and the relative impact of setting and mixed-attainment grouping.

School leaders don't always know what's happening on the ground

A further reason why the evidence may not have filtered into practice is that – especially in secondary schools – head teachers and some among their senior leadership teams (SLTs) may not be aware of the detail of practice within departments. While a large proportion of head teachers purport to be familiar with, and to apply, resources such as the Education Endowment Foundation Toolkit, our findings illustrate the problem with 'cascade'. In recruiting schools to our project, we had many instances where enthusiastic head teachers volunteered their school as practising either setting or mixed-attainment grouping in English and/or maths, only for us to discover that this was not actually the case. In large secondary schools, different departments often adopt markedly different practices, and there may be few mechanisms for the sharing of pedagogic practices and experiences between them. Hence knowledge and/or implementation of evidence-informed practice may become contained in certain places within a school rather than shared across a school.

Structures dictate content

We have found from our extensive interviews with teachers that setting practices are often driven by practical constraints that impede or over-ride the application of evidence-informed practice. For example the school timetable may be set up so that sets have to be the same for mathematics and science, while student attainment might differ significantly between subjects. Similarly, staffing or finances can constrain setting arrangements, determining class sizes, the availability of subject specialists and the number of subject lessons that can take place simultaneously. Big changes to structures can be seen as too difficult, and so even when schools identify setting as the intention, streaming or partial streaming may be forced (Taylor et al., forthcoming).

Knock-on effects of contextual factors

Interviews with teachers have also revealed that contextual factors for schools have a knock-on effect on setting practices. For example, many teachers told us that they didn't trust Key Stage 2 results or primary school assessments. This led to the 'tweaking' of sets and reliance on internal testing or subjective judgements that, while seen as more trustworthy, allow bias to be introduced. Likewise, the logistical issues mentioned above were often shaped by local contextual approaches of schools or school groups. For example, our requirement of fluidity between sets was very difficult in some schools, where timetabling arrangements or the requirement to negotiate movement with colleagues in another department made movement impossible. Finally, movement was actually seen as so undesirable in some schools that teachers construct support structures to *reduce* movement and keep students in their initially allocated set (Taylor et al., forthcoming).

<A>Conclusion

We have presented here some of the political and practical issues that explain the dominance of attainment grouping in the English context in spite of the apparent research evidence. We have also set out the consequences of these assumptions and practices, for perpetuating inequalities in school attainment and experience, which are patterned by social class (as well as ethnicity and gender). But this has been intended here as a – hopefully stimulating and important - case to illustrate some of the wider challenges around the interface between research, policy and practice, and the various impediments to a seamless journey between research findings and change on the ground.

For our part, we hope that the recognition and exploration of some of these issues in our present study will help us in making a significant contribution to the field, by aiding our reflection on optimal approaches and factors to consider going forward, in order to think with practitioners and facilitate good practice in the important area of grouping pupils.

<A>References

Ball SJ (2013) The Education Debate. Bristol: Policy Press.

DfE (nd) Research at DfE. London: DfE. Available at:

https://www.gov.uk/government/organisations/department-for-education/about/research (accessed 21 April 2016).

DfES (1997) White Paper: Excellence in Schools. London: HMSO.

- Francis B, Archer L, Hodgen J et al. (2017) Exploring the relative lack of impact of research on 'ability grouping' in England: A discourse analytic account. *Cambridge Journal of Education* 47(1): 1–17.
- Hallam S and Parsons S (2013a) The incidence and make up of ability grouped sets in the UK primary school. *Research Papers in Education* 28(4): 393–420.
- Hallam S and Parsons S (2013b) Prevalence of streaming in UK primary schools: Evidence from the Millennium Cohort Study. *British Educational Research Journal* 39(3): 514–544.
- Higgins S, Katsipataki M, Coleman R et al. (2014) *The Sutton Trust Education Endowment Foundation Teaching and Learning Toolkit*. London: Education Endowment Foundation.
- Jackson B (1964) *Streaming: An Education System in Miniature*. London: Routledge and Kegan Paul.

- Muijs D and Dunne M (2010) Setting by ability or is it? A quantitative study of determinants of set placement in English secondary schools. *Educational Research* 52(4): 391–407.
- National Audit Office (2015) Funding for disadvantaged pupils. Available at:
- https://www.nao.org.uk/report/funding-for-disadvantaged-pupils/ (accessed 19 April 2016). ResearchED (2016) ResearchED: About. London: ResearchED. Available at:
 - http://www.workingoutwhatworks.com/en-GB/About (accessed 19 April 2016).
- Slavin RE (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 MC and 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): 849–899.
- Taylor B, Francis B, Archer L et al. (2017) Factors deterring schools from mixed attainment teaching practice. *Pedagogy, Culture & Society* 25(3): 327–345.
- Taylor B, Francis B, Craig N et al. (2018) Why is it difficult for schools to establish equitable practices in allocating students to attainment 'sets'? *British Journal of Educational Studies*. DOI: 10.1080/00071005.2018.1424317
- Taylor B and Sloan S (2016) Best practice in grouping students? Characteristics of students in English and mathematics 'ability' set groups in English secondary schools. *National Pupil Database User Group meeting*, University of Bristol, 7 September 2016.
- Whitty G (2016) *Research and Policy in Education: Evidence, Ideology and Impact*. London: UCL IOE Press.

The Best Practice in Grouping Students team also includes:

Professor Louise Archer, Karl Mannheim Professor of Sociology of Education, UCL Institute of Education

Professor Jeremy Hodgen, Chair of Mathematics Education, UCL Institute of Education

Professor Paul Connolly, Queen's University Belfast

Dr Anna Mazenod, Research Associate, UCL Institute of Education

Dr Antonina Tereshchenko, Research Associate, UCL Institute of Education

Dr Sarah J Miller, Senior Lecturer, Queen's University Belfast

Dr Nicole Craig, Research Assistant, Queen's University Belfast