

The 'Psychological Prisons' from which they never escaped: The role of ability grouping in reproducing social class inequalities.

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Anabelle Dixon's recent editorial (2002) revealed that 88% of children placed into sets or streams at age 4 remain in the same groupings until they leave school. This is one of the most chilling statistics I have ever read. The fact that our children's future is decided for them by the time they are 4 years old derides the work of schools and contravenes basic knowledge about child development and learning. Children develop at different rates, and they reveal different interests, strengths and dispositions at various stages of their development. One of the most important goals of schools is to provide stimulating environments for all children; environments in which children's interest can be peaked and nurtured, with teachers who are ready to recognize, cultivate and develop the potential that children show at different times and in different areas. It is difficult to support a child's development and nurture their potential if they are placed into a low group at a very early age, told that they are achieving at lower levels than others, given less challenging and interesting work, taught by less qualified and experienced teachers, and separated from peers who would stimulate their thinking. Yet the predictability of performance in English schools seems not to trouble policy makers who support early and extensive ability grouping (Carvel, 1996). This is one of the reasons that the UK scores at the bottom of the scale on PISA's measures of equality (OECD, 2000; Green, 2003).

The ability grouping policies that new Labour encourage in schools would not be entertained in most other countries in the world. In Sweden ability grouping is illegal because it is known to produce inequities. In the US parents have brought law-suits against school districts that have denied high level curricula to students at high school age; the idea that such selectivity in 'opportunity to learn' (Porter, 1994) could happen at elementary school is inconceivable for most Americans. In Japan (Yiu, 2001) students are believed to have equal potential and the aim of schools is to encourage students to attain at equally high levels. Japanese educators are bemused by the Western goal of sorting students into high and low 'abilities'. Yiu (2001) recently interviewed some Japanese mathematics teachers who explained why they do not use ability grouping:

'In Japan what is important is balance. Everyone can do everything, we think that is a good thing. Everyone being the same is good, we are very comfortable this way. So we can't divide by ability.' (teacher A)

'Japanese education emphasizes group education, not individual education. Because we want everyone to improve, promote and achieve goals together, rather than individually. That's why we want students to help each other, to learn from each other (...), to get along and grow together – mentally, physically and intellectually.' (teacher B). (Yiu, 2001).

Other countries avoid ability grouping, yet England strides forward, encouraging extensive ability grouping practices at the youngest possible age. It is only the rarest and bravest of teachers who have managed to resist the pressures to group by 'ability' from the current Labour government, thereby maintaining a vision of schooling that promotes equity and high attainment for all. Such brave teachers are having to swim against a strong tide of public and political opinion, the

consequences of which are distressing and predictable. Andy Green revealed that the UK scores lowest on PISA indicators of school equality. This is a serious issue that should be a major concern for any government, especially one that claims to promote goals of social justice and citizenship.

Large scale analyses of school effectiveness, conducted with international datasets, such as PISA and SIMS, conclude that schools that group students the latest and the least have the highest outcomes. Green reports that 'countries with lower ages of selection tend to show much larger social disparities' and that when schools differentiate early results are much more dependent upon parental status but when differentiation happens later 'students themselves can play a bigger role' (2003, p89). Economists at LSE recently showed that the connection between parental earnings and educational outcomes has strengthened in recent years in Britain (Blanden, Goodman, Gregg and Machin, 2002), one of the predictable outcomes of schooling policies that under-serve working class children. Research on ability grouping has persistently shown high correlations between social class and setting (Ball, 1981, Boaler, 1997a), with social class working as a subtle filter that results in the over-representation of working class children in low groups. Research has also shown that ability grouping limits students' achievement, in low groups when expectations are low (Kerckhof, 1986 Linchevski, 1995; Boaler, 1997a,b), and in high groups when pressure is high (Boaler, 1997c). There is no escaping the fact that mixed ability teaching is difficult and it requires advanced knowledge and practice of pedagogy (Boaler, 2004, 2005) but such grouping is more equitable and it must surely be worthy of a government's investment. The current Labour government, like conservative governments before it, has not shown any interest in learning about or supporting more equitable pedagogies, or raising the age at which ability grouping takes place. Indeed one of the most distressing of our current government's educational policies has been the push to implement ability grouping in primary schools, something that even the Conservatives did not do.

During the years of 1992-1995 I studied the impact of different approaches to mathematics teaching and student grouping upon learning. Cohorts of students in two schools, who were similar in terms of social class and prior attainment, were monitored for three years (Boaler, 1997a, 2002). I followed students through their mathematics classes from when they were 13 to 16 years old collecting a range of qualitative and quantitative data, including hundreds of hours of classroom observations, interviews, questionnaires and assessments. 'Amber Hill' the pseudonym I used for one of the schools, was a comprehensive school that taught mathematics in a fairly traditional way. Students were placed into one of eight ability groups at age 13 for mathematics and they were taught using textbooks, student lectures, and practice. 'Phoenix Park' was an unusually progressive school. Mathematics was taught in mixed ability groups until the latest possible moment – a few months before the national examinations, and students worked on open-ended projects in class. One important outcome of this longitudinal study was the high achievement of the students at Phoenix Park. Not only did they score at significantly higher achievement levels than the Amber Hill students, on a range of assessments, including the national examination, despite being at the same levels at age 13, but they scored at higher levels than the national average, despite being at lower levels when they entered Phoenix Park. One of the reasons that the Phoenix Park students outperformed the Amber Hill students was the open-ended mathematics approach they experienced and the higher levels of interest they developed in mathematics. Another reason was the ability grouping at Amber Hill. Although I did not set out to study the impact of ability grouping it emerged as a critical factor, with many of the students reporting that they gave up on their learning when they were placed into any set from 2 downwards. At Phoenix Park the teachers grouped the students as late as possible (a few months before the national examination) and some initially low attaining students, who would have been placed into a low group had they been at Amber Hill, accelerated in their time at Phoenix Park

and ended up gaining B and C grades at GCSE. Another important finding from the study was the equitable nature of the Phoenix Park approach – there were no achievement differences by gender, ethnicity, or social class, an unusual and important achievement for a school. At Amber Hill typical patterns emerged, there was a significant correlation between the social class of students and the set they were placed into ($r=0.25$) after controlling for attainment, and investigation of the students who scored at higher or lower levels on the GCSE than might be expected from initial attainment showed that most of the high attainers at Amber Hill were middle class and most of the low attainers were working class (Boaler, 1997a,b).

When reporting the results of this study I have frequently been asked about the future directions and achievements of the students who attended Amber Hill and Phoenix Park. Recently I was able to investigate this question as I received some funding to track down the ex-students. The most difficult part of the follow-up study that I will report in this paper was the challenge of finding the young adults, who were then around 24 years old. The only contact information I had for them was their old addresses, where they had lived when they were in school, given to me by the schools. I decided to send a letter explaining my research and a questionnaire to the addresses. I sent these to the entire two cohorts, a total of 288 addresses (181 from Amber Hill and 107 from Phoenix Park). This resulted in 63 returned questionnaires, representing 20% of the students from Amber Hill and 24% of the students from Phoenix Park. This return is small although understandable given that many of the ex-students had moved away from their old addresses. Despite the relatively low return, the 63 young adults who responded were an interesting and important group to consider. From the data I had collected on the students when they were in school I was able to investigate the representativeness of the group by social class and by GCSE attainment. This showed that the students who responded were highly representative of the whole school cohorts. Comparing the group who replied at Amber Hill to those who did not, and the same at Phoenix Park, there were no significant differences in social class (Amber Hill: $ks = 0.0948$, $p\text{-value} = 0.9387$; Phoenix Park: $ks = 0.1746$, $p\text{-value} = 0.607$). Comparing GCSE scores, the group who responded at Phoenix Park were not significantly different from the group who did not ($ks = 0.0683$, $p\text{-value} = 0.9994$). At Amber Hill the GCSE comparison showed a difference with the group who responded being significantly higher than the group who did not ($ks = 0.2575$, $p\text{-value} = 0.0171$). This contributes to the fact that a comparison of GCSE scores of those who responded from Phoenix Park with those who responded from Amber Hill showed no significant differences between the two groups ($t = -0.8464$, $df = 58.2$, $p\text{-value} = 0.4008$). Even though the Amber Hill students did not score as highly as the Phoenix Park students in school, the group who replied were above average for the school and so were comparable to the Phoenix Park group, who were representative of their whole school cohort. These statistics mean that the 63 students were broadly comparable to each other, and to the bigger cohorts, with the Amber Hill students being somewhat higher in achievement than their whole cohort. Given this comparability it was extremely interesting to find that the Phoenix Park adults are now working in jobs that are significantly higher in terms of social class, than the Amber Hill adults ($t = 2.09$, $d.f. = 63.00$, $p = 0.04$), a result which I will unpack, briefly.

In the questionnaires the two sets of ex-students named and described their current employment. I categorized the young adults' jobs by social class, using the Office of Population Censuses and Surveys classification (OPCS, 1990a, b, c), the same classification scheme that I had used to analyze their parents' jobs when the students were in school. The jobs were then categorized again, by a second researcher, giving an inter-rater reliability of 88%. The disputed categories were reviewed and agreed, giving the results in table 1 below.

Table 1. Percentages of ex-students in each social class category, OPCS, 1990.

	<i>Professional</i>	<i>intermediate</i>	<i>Skilled non manual</i>	<i>Skilled manual</i>	<i>Partly skilled</i>	<i>unskilled</i>	
	1	2	3	4	5	6	n
PP	0	44	30	15	11	0	27
AH	0	25	36	17	11	15	36

Categories 1, 2 and 3 are typically regarded as middle class, 4, 5 and 6 as working class.
 $t = 2.09$, d.f. 63.00, $p = 0.04$

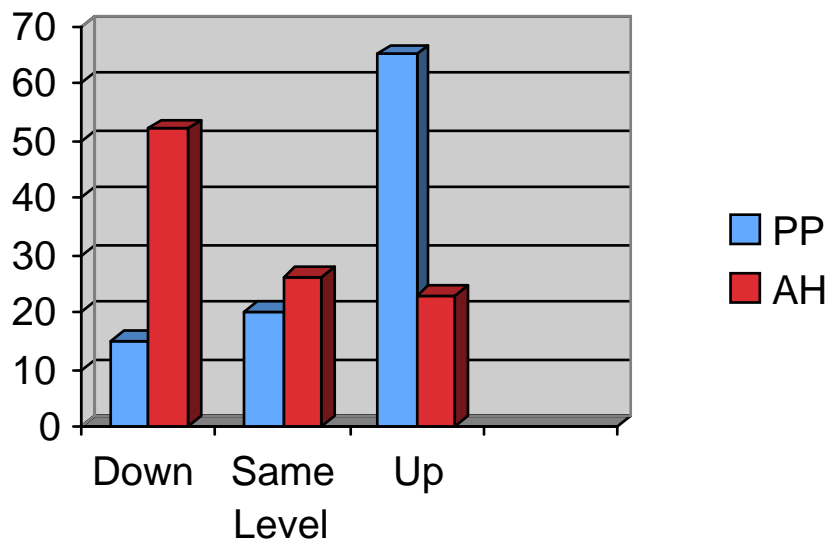
These show that the social class levels of the Phoenix Park adults are now significantly higher than the Amber Hill adults. When comparing the social class of the children to their parents (table 2), it can be seen that most of the Phoenix Park adults (65%) improved their social class categorization, whereas approximately half of the Amber Hill adults (51%) went down and a further 26% stayed at the same level. At Phoenix Park there was a distinct upward trend in social class among the children, at Amber Hill there was not.

Table 2. Social Class Movement, Percentages of students (places moved up or down the OPCS scale)

	Downward movement				Same level	Upward movement				n*
	-4	-3	-2	-1		0	+1	+2	+3	
PP	0	0	5	10	20	40	20	0	5	20
AH	6	0	17	29	26	11	9	3	0	35

*These numbers are slightly smaller than those in table 1 as I only had data on the parents' social class for 55 of the 63 respondents.

Figure 1. The percentages of students at the two schools who moved down the scale, stayed at the same level, or moved up the scale.



$\chi^2 = 10.51936$ d.f. = 2, $p = 0.005$

One explanation for this interesting result would be the affluence of the two areas and the job opportunities provided in the different locales in which the young adults lived; but this hypothesis cannot be supported by the areas in which the adults lived. Indeed the Amber Hill children live in an area that is relatively more affluent with a much wider range of jobs available to them. This is probably the reason that they began school at higher levels of social class (although not significantly) than the Phoenix Park children, and the same attainment levels. Phoenix Park school is situated in a more working class area and most of the children who attended the school lived on the same housing estate. The only alternative explanation – that their different school experiences gave the Phoenix Park students a better start in life and afforded them the opportunity to move upward in the social scale – seems likely. Indeed this small but representative data set would suggest that Phoenix Park, a progressive school in one of the poorest areas of the country, helped the students to become upwardly mobile.

The influence of the students' whole school experiences and the students' mathematical experiences that I studied when they were in school, cannot easily be separated in this study, but the students' whole school experiences varied along similar dimensions. Amber Hill was a traditional school where most subjects were taught traditionally and employed ability grouping, although mathematics divided students into the most sets (8). Phoenix Park was a progressive school, proud of its tradition of giving students' responsibility and employing project based teaching methods across the school. Only one department (science) employed ability grouping.

I was given further opportunity to investigate the influence of the students' school and mathematical experiences upon their lives by conducting interviews with 20 of the young adults, 10 from each school. The adults were chosen to represent different levels of attainment, and I selected adults with high, middle and low GCSE mathematics scores from each school. I conducted the interviews before categorizing the ex-students' jobs and so I did not use the interviews to probe the issue of social class movement, but I did talk with the young adults about the jobs they were doing and how their work and life had been impacted by school. The young adults gave interesting responses in two main areas – one concerning mathematics, in school and in life, which I will not report in this paper, the other concerning ability grouping. There is not the space in this paper to report carefully the analyses of the interviews but the adults from Amber Hill were universally agreed upon one thing: their experiences of school could not be separated from the ability group experience. The adults from set 1 were happy with their grouping but aware that it had shaped their whole experience, those from set 2 downwards talked not only about the ways their attainment had been constrained by the grouping but also the ways they had been set up for low attainment in life. One of the young men from Amber Hill spoke eloquently about the setting experience:

“You're putting this psychological prison around them (...), it's kind of... people don't know what they can do, or where the boundaries are, unless they're told at that kind of age.”

“It kind of just breaks all their ambition ... particularly schools like *Amber Hill* where it's predominantly working-class kids whose parents don't necessarily have the ambition *for* them. And then if it's being reinforced in the classroom with kind of “yes you're going to be a labourer for the whole of your life” then it means they can't break out of that box. It's quite sad that there's kids there that could potentially be very, very smart and benefit us in so many ways, but it's just kind of broken down from a young age. So that's why I dislike

the set system so much—because I think it almost formally labels kids as stupid.” (Nikos, ex-Amber Hill student).

The interviews from the two schools, that cannot be fully reported here, added nuance to the patterns observed in the data showing students’ social class movement. Although the two sets of adults who responded had scored at comparable GCSE levels, the school experiences of the Phoenix Park adults had given them important advantages. The Phoenix Park adults reported that their school had excelled at finding and promoting the potential of different students and that teachers had regarded everyone as a high achiever. The Phoenix Park adults communicated a positive approach to work and life, describing the ways they used the problem solving practices they had been taught in school to get on in life. The Amber Hill adults, by contrast, told me that their ambitions were ‘broken’ at school and their expectations lowered. They told me that they had been taught to expect little of their own achievement and most of those I interviewed were unhappy in the jobs they were in, believing that they could have done a lot more. If the Labour party really cares about promoting ‘social justice’ then an important part of their agenda for the future must be to learn about equitable and effective grouping policies that promote high achievement for all and reduce rather than *reproduce* social inequalities.

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