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The impact of school experiences on pupils' sense of justice

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Keywords

Equity, pupil voice, citizenship, logistic regression

Abstract

This paper presents some of the findings from a survey of 13,000 15-year old pupils in five European countries. The young people were faced with a number of realistic situations in the form of vignettes, intended to elicit the principles of justice to be applied in different domains, and also asked more directly about fairness both within and beyond school, and their family and educational experiences. The pupils' background, the nature and intake to their schools, and their reported experiences at school, are here used in regression models to try and help explain how pupils learn to trust others, to allow extra assistance for the most disadvantaged, and what they aspire to in later life. The findings are somewhat different for each outcome, but in general pupil background plays a role. More importantly for policy perhaps, there is a small peer effect. Most importantly, pupils' experiences at school are the key to explaining most of the observed variation. In general, those treated with respect by other pupils and teachers were more likely to report trusting others, being prepared to help others, and confidence in their futures. In a sense these findings are predictable, but their practical implications, if accepted, would be considerable.

Background

A key objective of education development is to increase participation and achievement among school pupils, especially those facing disadvantage in terms of language, poverty, ability and special needs. Another is to enhance their enjoyment of learning and their preparation for citizenship. Much education research concerns achievement and participation. But less effort has been put into considering how to promote fairness, enjoyment and 'good' citizenship, and how to recognise success or failure in this (EGREES 2005). We add to knowledge in this area by looking at the

impact of schools and pupil experience on how pupils might develop the civic 'values' of fairness, aspiration, and trust. We present the results of a new European survey of 13,000 15-year-olds, using an instrument assessing their experiences of justice at school, home and in wider society, their backgrounds, and their hopes for the future. Having introduced the topic and methods, the paper covers some of the findings before considering the possible implications of the findings for school policies, and the behaviour of teachers.

For many pupils, their experience of school is fundamental to their conception of wider society, their place as citizens, and their sense of justice (Gorard 2007a). This project looks at schools as organised societies and the part they play in creating a sense of justice among pupils. A particular concern was to represent the views and experiences of potentially disadvantaged pupils, including those with learning difficulties, or behavioural problems, those apparently less suited to an academic 'trajectory', plus recent immigrants, those learning through a second language, or who are from socio-economically deprived backgrounds. Previous studies have shown that these indicators of potential disadvantage are strongly linked to individual pupil attainment (Gorard and Smith 2004a). But more generally it seems 'information about the position of the most disadvantaged groups in education is extremely scarce and fragmented. Genuine comparative research in this respect at the EU level is currently impossible because the basic information is not available' (Nicaise et al. 2000, p.314). More research is needed on the effectiveness of school reforms in tackling educational and social exclusion. We considered it essential for the benefit of policy-makers and practitioners that we ask pupils and listen to their own accounts of school and wider experiences. Pupils have clear and coherent opinions, are willing to express them given a chance, and appear to be responsible commentators on a process of education that they are intimately involved in (Smith and Gorard 2006).

Methods

This ongoing project has moved from re-analysis of existing data sources at EU level (Gorard and Smith 2004b), through two large-scale pilot studies in five countries (EGREES 2005), to a new complex survey of year 10 (grade 9) pupils in 403 schools. In the survey there were around 80 schools each from Belgium, Czech Republic, England, France, and Italy. This yielded 12,575 complete cases, with a few missing or undefined responses allocated to the null category for each variable. The purportedly random sample of pupils was drawn from official lists of the schools in each country, via teaching units (classes). This was supplemented by a boosted sample of face-toface structured interviews with pupils educated otherwise - in hospitals, offenders' institution, and special schools. The grade-9 pupils were intended to be around 14years old at the time but, because of the grade repetition prevalent in some countries, the ages varied. This provided useful data for examining the possible impact of repetition on pupil views. Despite having to use considerable replacement from a reserve list (due to non-agreement by around 40% of schools), the achieved sample was excellent, and representative of those pupils in each country facing potential disadvantage.

We collated existing official data about the intake, location, internal structure, governance and performance of these 403 schools where available, and supplemented

these with a classroom-level questionnaire for the teaching staff, and with free-standing comments, observations and field notes taken during administration of pupil survey. We used these various contextual sources as illustrations and potential explanations of the findings from the pupils. The pupil survey was previously piloted with 2,000 pupils in 100 classes in the same five countries – French-speaking Belgium, Czech Republic, England, France and Italy. This both assisted the main study and yielded useful data of its own (Gorard et al. 2007).

Part of our pupil questionnaire was built around questions intended to elicit the respondents' own principles of justice (Gorard and Sundaram 2008). We offered vignettes to pupils for them to consider how to act in a variety of situations, so revealing the criteria of justice they might employ on each occasion. In addition, the pupil questionnaire asked about their family background (and key measures of disadvantage), their views on an ideal education, and their opinions on wider social issues such as crime, immigration and government. We examine their experiences and the potential impact of their experiences on well-being, work, relations at school, involvement in tasks, and results, plus perseverance in school, ethical and civic judgements, trust in institutions, and unfairness in general.

The data have been analysed in terms of frequencies, cross-referenced, and modelled. We have described differences in outcomes and experiences between socio-economic and ethnic groups, countries and school types (EGREES 2008, report to DG Education and Culture, available from the authors). We have also modelled the plausible social and educational determinants of the different perceptions of justice among different types of pupils. The initial results were presented to an international audience of teachers, school leaders and teacher trainers for discussion and feedback both on the presentation of results and on further analyses to be conducted. The comments and concerns of these practitioners have been integrated into our analysis as far as possible.

Variables were classified in terms of background (e.g. pupil sex), predictors (e.g. experience of justice), and potential outcome variables (e.g. sense of justice). This enables 'prediction' of the outcome variables using both the background and experience variables to assess the influence of family and school on pupils' developing sense of justice. The three models discussed below are derived from logistic regression analysis with binary 'dependent' variables – professional aspiration (whether a pupil wanted a professional/managerial occupation or not), trust (whether a pupil generally trusted other people or not), and help for the disadvantaged (whether a pupil was prepared for another person to be helped at their expense, or not). In each case, around 50% of pupils were in each category.. And in each case the regression analysis used the other 'independent' variables to predict which category a pupil would have chosen, so increasing the accuracy from around 50% to around 70% (so explaining 40% of the residual variation). Nearly 80 independent variables were entered in six blocks representing pupil background (such as parental occupation), aggregated (i.e. school-level) background, parental support (such as whether parents talked to children about schooling), aggregated parental support, experience of justice at school (such as whether pupils were bullied), and aggregated experience of justice. The stages represent a rough biographical order, and so protect the analysis from the invalid influence of later proxies (such as success at school replacing parental education).

The aggregated variables are the percentage of pupils in each school sample reporting the first response in each classification, or agreeing with the statement in the questionnaire. All other variables are categorical, and results are reported using indicator coding with the last category as the referent. Variables were selected within each stage by means of backward stepwise elimination (likelihood). Those variables so eliminated were deemed irrelevant as they did not affect the quality of the result once other variables had been taken into account. As with all such models, these do not represent any kind of definitive test but are one way of filtering the results to help us see potential patterns.

In two countries (France and England) a high proportion of pupils have no reported job aspiration (a defect of the machine-read post-coding), and this proportion might distort the results (making country appear a good predictor). Therefore, country of pupil is omitted as a predictor from the analysis for the aspiration outcome (rather than omitting this large number of cases). Some variables were specific to each country and these are also omitted. The estimate of the school-level data is derived from the sample here, because the school-level data collected from each school is too varied in quality. There is also no universal objective indicator of pupil attainment that can be linked to the anonymous pupil responses. Here we use pupil self-report of attainment, but this does lead to some problems of interpretation (see below).

Given these issues and the imprecision of the measurements involved in this international postal survey, it would be unwise to focus on any small increases in correctly predicting aspiration or on variables having only a minor impact on the results. Because the original sample required substantial replacement from reserve cases it is no longer considered here a random representation of each country, and so the issue of significance (p-values) is no longer relevant. The findings below are described in relation to the very large sample itself.

The paper describes three modelled outcomes in turn – occupational aspiration, a criterion of justice, and willingness to trust others.

Predicting professional aspiration

Professional aspiration was used as the dependent variable in a binary logistic regression. In total, 48% of pupils reported wanting a professional occupation after leaving education, and the remaining 52% did not. Any prediction of an individual pupil aspiration to a professional occupation would be 52% correct simply assuming that no one wished to be a professional. The success of the model depends on its ability to improve on this baseline figure. The percentage predicted correctly for each stage of the model is in Table 1. The final column represents the proportion of any previously unexplained variation now explained at each stage. Thus, pupil background appears to explain around a further 12 percentage points over and above 52%, or 25% of 48.

Table 1 – Percentage of pupils correctly allocated to professional aspiration or not, by batch of variables

Batch Percentage predicted Percentage	centage of remaining
---------------------------------------	----------------------

	correctly	variation explained
base figure	52	-
pupil background	64	25
aggregated background	69	10
parental support	69	0
aggregated parental support	69	0
experience of justice at	71	4
school		
aggregated experience of justice	71	0

As can be seen, the model is reasonably successful in predicting aspiration over and above the baseline figure, especially given the likely variation in occupational structure between countries which cannot be picked up here because of the huge difference in response rates between countries (see above). A further 19% (over and above 52%) is explained in total. Of this increase, almost all is accounted for by pupil background characteristics, and school-level figures for pupil background (the school mix). A small amount of the remaining variation is accounted for by pupils reported experience of justice at school.

Of the pupil background factors, once other characteristics are taken into account, whether the pupil was born in the country of the survey or not, and whether their parents were born in the survey country, are not relevant to aspiration. This suggests fairness of a kind, in that those pupils born outside the country of the survey or with one or more parents born elsewhere have the same level of professional aspiration as 'indigenous' pupils.

The most important predictor of aspiration is (self-reported) level of attainment at school – used as an indicator of academic talent. Pupils reporting high attainment are 2.39 times as likely as those reporting low attainment to want a professional occupation, *ceteris paribus*. Similarly, pupils reporting average attainment are 1.57 times as likely as low attainers. Where we have been able to verify the self-reports of attainment with Key Stage results for the England sample, they are reasonably accurate. So, one interpretation is that low attaining pupils have lower occupational aspirations at this stage. However, it is also possible that both of these subjective variables are simply picking up the same level of confidence in self-reports.

If prior attainment is put aside for this reason, the most important influence on aspiration is, unsurprisingly, the occupation of parents. For example, 59% of pupils with professional fathers also want a professional career, compared to 45% for children of skilled workers, and 41% for children of those in unskilled or no employment. Taking all background variables as a group, pupils with professional fathers are 1.58 as likely to report professional aspirations as those with unskilled or unemployed fathers. For mothers the equivalent figure is 1.38 times. It is unclear whether this is a kind of direct reproduction or whether there are latent forms of capital in professional families that lead to higher aspiration among children. Prior research has been excellent in identifying such educational and occupational stratification (Gorard and See 2009), but not very clear when identifying the reasons for it. Thus, it is not clear what we can do about such findings in practical and policy terms (Gorard et al. 2007). Lesser influences are sex (females 1.09 times as likely to

report professional aspiration as males), first language (those speaking home language 1.10 times as likely as others), and father attending university (1.14) or not. Mother attending university is not relevant for this generation.

When the pupil background variables are aggregated to the school level, as an estimate of the school mix effect of clustering similar pupils in schools and classes, they can further improve the predictions of aspirations. One interpretation of this is that there is a school mix effect on pupil aspiration. So, for example, as well as the pupil's father's occupation being a good predictor (see above), the percentage of professional fathers in each school is also a good predictor. In fact, the odds of aspiring to a professional occupation increase 1.02 times for each percentage of the school intake with professional fathers. This is a large increase in addition to the impact of the pupil's own father. The mother's occupation is slightly less important (1.01), but where they were born is somewhat more important. The odds of aspiring to a professional occupation increase 1.03 times for each percentage of the school intake with mothers born in the survey country. Or put another way, while the country of origin of each pupil is not apparently relevant to their aspirations, having schools with high concentrations of pupils with mothers from another country reduces aspirations. Where the pupil and the father were born does not seem to matter so much once the origin of the mother is taken into account. The odds of aspiring to a professional occupation increase 1.01 times for each percentage of the school intake speaking the language of the survey country at home, regardless of the language spoken by an individual pupil.

So we find that those attending school with a high percentage of pupils from professional, educated families tend to have higher aspirations even where they are from different kinds of families themselves. If accepted, this finding has a clear message for the promotion of social justice via the allocation of school places. Policy-makers cannot (quickly) alter the proportions of each pupil characteristic in the population, and nor perhaps should they, but they can more easily influence who goes to school with who. Allowing pupils from professional, educated families to cluster in specific schools will encourage social reproduction. There is no gain in such clustering, since there is no clear school mix on attainment (Gorard 2006a). There is a cost in terms of social mobility. Thus, as with many analyses, but this time in terms of social justice, we conclude that comprehensive and undifferentiated schools are the best as a system (Gorard 2007b).

The clustering of parents who have been to university is not relevant once these other factors are taken into account. More importantly from a policy perspective, the backwards stepwise regression also eliminated the percentage of boys and girls and the percentage of high, average and low attainment pupils as predictors. Thus, as far as we can tell from this survey, putting girls (and boys) in separate schools does not influence their aspiration once their background is factored in. Similarly, selecting pupils to school by (self-reported) attainment neither increases nor decreases their aspiration. It is the social and occupational segregation between schools that matters here.

The survey included four questions about the pupil's relationship with parents, and the kinds of interest and support their parents provided. Using these variables makes no difference to the quality of the prediction and all four items are eliminated in backward stepwise selection – both individually and aggregated to school level. Clearly, this does not mean that parents have no influence, but it does suggest that the influence is accounted for by pupil background. Perhaps different kinds of parents interact differentially with their children. It may be difficult, if so, to improve aspiration through greater parental involvement by itself. In terms of policy, an interesting result in terms of pupil experience is that whether a pupil repeats a year or more (i.e. born before 1991) makes no difference to aspiration (*ceteris paribus*).

There is a small but discernible relationship, once the preceding factors are accounted for, between pupils' reports of justice in school and their aspirations. While background is very important and school structure (such as segregation) is important in producing aspiration, there is still a small role for the interaction of teachers and pupils at school. For example, those pupils getting on really well with their teachers were over 1.30 times as likely as to want a professional occupation as those who strongly disagreed with this. Pupils reporting that teachers respected the pupil's opinions (even when they were at variance) were 1.25 times as likely as those disagreeing with this to want a professional occupation. These two items both relate to the individual pupil and their relationship with teachers. In general, those with the most positive personal experience of school had the highest aspirations (or vice versa of course). Those reporting that they had good friends at school had the higher aspirations (were around 1.80 times as likely to want a professional job as those clearly without good friends). Similar but weaker results apply to those who report not being discouraged easily. Pupils with professional aspiration tend to report better personal relationships with both teachers and other pupils. If there is any causal link here it is unclear. It might be, for example, that some good teachers have a role in raising the hopes of some pupils.

However, the opposite is true when pupils consider pupil:teacher relationships in general (rather than reflecting on their own interactions). Pupils with professional aspirations tend to identify the unfair treatment of others more often than they report unfair treatment themselves and than those with non-professional aspirations. Those reporting that teachers respected *all* pupil opinions (even when these were at variance) were less likely to have professional aspirations (0.88) than those strongly disagreeing. Similarly, those strongly disagreeing that all pupils were treated the same, and those strongly disagreeing that they trusted teachers to be fair, had the highest aspirations. These last two differences are small, and contribute little to what is already a small percentage of variation explained here.

There is little impact of school experience on aspiration (although of course this could be due to missing variables). This finding confirms a number of recent international syntheses of evidence on the importance of a mixed intake to schools (comprehensive rather than selective, for example) for both efficiency and equity of attainment. It adds to that the key message that school mix also relates to subsequent aspirations. This could affect patterns of post-compulsory participation and attainment as well (Gorard et al. 2007). School experience combines with social background to form a relatively permanent learner or non-learner identity (Gorard and Selwyn 2005). What is true for aspirations appears also to be true for post-compulsory participation in education or training (Gorard and Smith 2007). Clustering pupils in schools by socio-economic background, whether deliberately or not, reduces the educational as well as the occupational aspirations of the most disadvantaged. In general, pupils reporting a

positive experience of school (not bullied, treated with respect by teachers) have more professional aspirations (or *vice versa* of course).

Predicting criterion of justice

Whether teachers should give more help to a pupil with reading difficulty or not was used as the dependent variable in a binary logistic regression. In total, 51% of pupils reported that the teacher should give extra help to a pupil with a specific difficulty, and the remaining 49% did not. Any prediction of an individual pupil happy for more help to be given to a pupil with a difficulty would be 51% correct simply assuming that everyone was happy with it. As above, the success of the model depends on its ability to improve on this baseline figure. The percentage predicted correctly for each stage of the model is in Table 2. The model increases the accuracy of prediction, compared to the baseline, by 20%. Of this increase, nearly half is attributable to the pupil background, and half to experiences at school. There is only a small school mix effect, and most of the variation explained operates at the individual level. Again, reports of parental involvement are irrelevant.

Table 2 – Percentage of pupils correctly allocated to help criterion of justice or not, by batch of variables

Batch	Percentage pre	dicted	Percentage of remaining
	correctly		variation explained
base figure		51	-
pupil background		60	18
aggregated background		61	2
parental support		61	0
aggregated parental support		61	0
experience of justice at		70	18
school			
aggregated experience of		71	2
justice			

Note: For comparison purposes, I used the same variables to 'predict' an entirely random binary outcome to assess the dangers of fitting the model *post hoc*. The best such model is around 54% correct, meaning that a lot of the variance explained in tables like this one is unlikely to be spurious.

In the domain of school, where the other person is at a considerable disadvantage, this vignette attempted to assess pupil's use of equality of outcome (all should learn to read) as a criterion as opposed to equality of treatment, resources or opportunity, for example. For more on the relevant criteria and domains in which these are applied, see Gorard and Sundaram (2007). Insofar as we can explain pupil willingness for others to get extra help, pupil background is a key factor, although the sex, attainment, and country of origin of the pupil are irrelevant to this criterion of justice. Also irrelevant are the occupations, education and country of origin of parents. Those pupils living in England are more likely to approve of help given to others than those in other countries. This is illustrated in the percentages agreeing with extra help, when this variable is looked at in isolation. The raw figures are England (72%), Belgium (59%), Czech Republic (44%), France (51%) and Italy (36%). In addition, given that the vignette is about difficulty in reading, it is interesting that those speaking the

language of the survey country are generally happier for a pupil struggling with reading to be given extra help (odds of 1.26).

There is a small improvement in correct predictions if the pupil background variables are aggregated to the school level as an estimate of the school mix effect of clustering similar pupils in schools and classes. Schools with higher proportions of pupils born in the survey country are less likely to be happy with extra help given to others. Support for the criterion declines by 0.99 for every percentage of 'indigenous' pupils.

A large number of school experience variables are not relevant to increasing the quality of the prediction, including whether a pupil repeats a year or more (i.e. born before 1991). But there is a very clear relationship, once the preceding factors are accounted for, between pupils' reports of experiencing justice in school and their willingness for a pupil in difficulty to receive extra help. Being respected by teachers, with teachers not getting angry in front of others, not punishing pupils unfairly, concerned for pupil well-being and prepared to explain until everyone understands, are key to pupils learning to support help for those with difficulties (or reporting this at least). Taken at face value this suggests a clear role for teachers in educating citizens who are tolerant and supportive of the difficulties of others (Table 3).

Table 3 – Coefficients for pupil/school experience variables

	Strongly	Agree	Neither	Disagree
	agree			
Teachers respected my opinion	1.03	1.11	1.21	0.98
Teachers interested in my well-being	1.27	1.00	1.10	1.07
I have good friends in school	1.70	1.70	1.82	2.38
Something of mine stolen	1.02	1.18	1.14	0.98
I was deliberately hurt	1.18	0.91	1.08	0.87
I got discouraged easily	1.06	0.93	1.01	0.97
Teachers got angry with a pupil	0.81	0.89	0.94	0.98
Teachers continued explaining	0.98	1.06	1.01	0.94
Teachers punished fairly	0.81	0.68	0.74	0.80

Note: all coefficients are in relation to the strongly disagree category

Teachers can do this not only (or perhaps at all) through citizenship pedagogy but through their exemplification of good citizenship in action (Gorard 2007a, 2007b). There is similarly a key role for the pupils. Having friends is important, and also avoidance of being mistreated by other pupils. Those reporting being hurt, bullied and having things stolen by other pupils at school are all less likely to support extra help for others. This is *not* a school mix effect (e.g. where those attending schools with low levels of theft are more supportive anyway). Thus, it appears to stem directly from treatment by others. Some of the differences are slight. For example, 44% of pupils who had been clearly bullied were in support of help for others, compared to 51% who had clearly not been bullied. Nevertheless, there could also be a role for teachers here then, in preventing such mistreatment and educating the potential bullies and thieves.

Predicting levels of trust

Whether most people can be trusted was the third outcome used as the dependent variable in a binary logistic regression. In total, 51% of pupils reported not trusting people generally, and the remaining 49% trusted people to some extent. Any prediction of an individual pupil trusting people would be 51% correct simply assuming that no one trusted people. The success of the model depends on its ability to improve on this baseline figure. The percentage predicted correctly for each stage of the model is in Table 4. Pupil background characteristics explain some of the variation in outcomes but not as much as might be expected. And this influence mostly operates at the individual level, with no evidence of a school mix effect. Of the increase of 13% in correct predictions over and above the baseline, over half is attributable to experiences of justice at school. This is after background and parental support have been taken into account, and so represents reasonable evidence of the influence of school in helping pupils to learn to trust others.

Table 4 – Percentage of pupils correctly allocated to trusting people or not, by batch of variables

Batch	Percentage predicted	
	correctly	variation explained
base figure	51	_
pupil background	56	10
aggregated background	56	0
parental support	57	2
aggregated parental support	57	0
experience of justice at	62	10
school		
aggregated experience of	64	4
justice		

Insofar as we can explain a tendency to trust people with these survey data, pupil background is a factor, although the sex, language, and country of origin of the pupil are irrelevant. Also irrelevant are the occupations and country of origin of parents. Those pupils living in England are very more slightly trusting than those in Belgium (0.99), Czech Republic (0.98), France (0.99) and Italy (0.98). Those with a father born in the survey country are also slightly more trusting (1.08). However the main determinant of this improvement in the baseline model lies in the (self-reported) attainment of pupils. Intriguingly, pupils reporting higher levels of attainment at school are somewhat less likely to report trust (0.94) than average attainers who are in turn less likely than low attainers (1.05). Whether this is due to greater perspicacity, or another confounding variable, is not clear.

The survey included four questions about the pupil's relationship with parents. Using these variables makes a small difference to the quality of the prediction. Parents talking to pupils about their child's friends and interests, and being interested in their well-being, are irrelevant here. But those pupils whose parents treat them with respect and talk to them about school tend to be more trusting.

There is a very clear relationship, once the preceding factors are accounted for, between pupils' reports of justice in school and their sense of trust in other people. While background is important in producing trust, and parental respect of their children less so, the biggest factor among the items surveyed is the reported

interaction with teachers and pupils at school. Unlike aspirations, whether a pupil repeats a year or more (i.e. born before 1991) makes a difference to trust (0.93).

Those who report getting along well with their teachers, and trusting their teachers to be fair, are themselves more trusting in general. Of course, there is a possible element of tautology in several of these 'independent' variables. Pupils who have repeated one or more years are less likely to be trusting (41%) than those who have not (50%), perhaps linked to the lack of grade repetition in England. However, it is actual experiences at school that are most strongly related to trust. Pupils who regard school and teachers as fair, and the meting out of punishments as fair, and who have not been hurt or isolated by other pupils nor had something stolen are, perhaps understandably, more trusting in nature. As with the help outcome, this suggests a clear role for teachers in educating citizens who are generally trusting of others. They do this through their exemplification of good (or indeed poor) citizenship in action. There is also a role for teachers in preventing the mistreatment of some pupils by others and educating any potential 'bullies' or 'thieves' (Table 5).

Table 5 – Coefficients for pupil/school experience variables

	Strongly	Agree	Neither	Disagree
	agree			
Got along well with teachers	1.08	1.12	1.10	0.82
Trust teachers to be fair	1.17	1.12	1.02	0.86
Felt invisible to mates	0.86	1.15	1.09	1.14
Something stolen	0.89	0.87	1.02	0.92
Deliberately hurt	0.81	1.0	1.07	1.14
Discouraged easily	0.82	0.82	0.85	0.92
Friend from abroad	1.09	1.13	1.07	1.10
Friend with low marks	1.14	1.04	1.18	0.90
All pupils treated same way	1.10	1.07	1.07	0.98
Teachers got angry	0.86	0.95	0.95	1.00
Teachers punished fairly	1.23	1.27	1.27	1.14
Pupil marks deserved	0.97	1.12	1.12	0.88
School was fair	1.40	1.35	1.23	0.87

Avoidance of bullying, personal violence, and theft are related to learning to trust others – or put the other way, the least trusting are those who have been victims of bullying, violence, and theft at school. Therefore, there is an argument that what happens at school differentially influences pupils' sense of what is just and fair, and what wider society is like. And a lot of what happens is the direct responsibility of other pupils, while only indirectly due to the (in)actions of teachers. If citizenship education entails learning appropriate levels of trust in others, then the level of reported mistreating of pupils by other pupils is a clear barrier to progress.

Conclusions

It is important to recall that a lot of potentially important things remain unmeasured in our survey of pupils. The school level characteristics, for example, have had to be estimated by simply aggregating the responses of those pupils who respond. In addition, we cannot claim that the samples are perfectly representative, nor the

questions perfectly phrased for each language, and there is inevitably some nonresponse. Most importantly, we are largely associating some parts of the reports of pupils with other parts of the same reports. There is no test of a causal model here, and even a danger of elements of tautology in some findings.

Nevertheless, the scale of relationship between the predictors such as pupil background, school mix or pupil experience of justice, and the outcome variables trialled here is substantial, over a large sample across five countries. Insofar as these results are replications, they are corroborated by our previous study (EGREES 2005) and by our substantial pilot (Gorard et al. 2007). The results are credible.

Another way of imagining these findings is to contrast them with the long-standing work on academic school effectiveness. School effectiveness, as a field, has mostly the same problems as the work described here. It is not a causal test, does not have complete information, has to deal with omitted variables and missing cases, and so on. In one crucial respect, school effectiveness models are stronger and more impressive than those described here. They are capable of explaining between 80% of 100% of the variation in pupil academic outcomes simply in terms of background data, such as pupil prior attainment (Gorard 2006b). But this means, of course, that the attainment of pupils in schools is largely predicated on their prior attainment and background characteristics. In developed countries, it does not appear to make much difference which school a pupil attends. Going to school obviously makes some difference in comparison to not going to school but little difference in comparison to going to a different school in the same system. Almost all schools are free, compulsory, roughly equal in funding, inspected, with trained staff, widely shared curricula, and standardised tests. There is very little variation in test outcomes (0 to 20%) left to attribute to the differential impact of schools, and this includes the error components contributed by inevitable flaws in the research and measurement (see above). There is almost certainly not enough variation remaining to identify a school mix effect on attainment (Gorard 2006a).

In contrast, the models described here explain only about 20% (10/50) of the variation in pupil 'justice' outcomes using pupil background data alone. The main reason for this is that unlike school effectiveness work we do not have a prior score for pupil sense of justice. We do not know, therefore, how much (or little) pupils' sense of justice has changed since their arrival in secondary-age school. In school effectiveness work it has become traditional simply to ignore the error component and attribute all variation in outcomes left unexplained by pupil background to the 'school effect'. It is in this respect that our model here is stronger. There remains 60% (30/50) variation in outcomes, and we leave this unattributed (except to error and flaws in the research). But the school mix (for aspiration) and school experience variables (for help and trust) actually explain a further 20% here. These are based on biography (and so the time sequence necessary for causation), rather than the nesting hierarchies of effectiveness work, which perforce ignore characteristics that do not nest such as sex or parental support. This is a much more powerful finding than the school effects purportedly found in school effectiveness work. Thus, it is worth thinking about the consequences of.

The use of school improvement models has led, indirectly, to an overemphasis on the most visible indicators of schooling - examination and test scores. The use of test

scores leads to three related problems. It may marginalise other purposes and potential benefits of schooling. In addition, it suggests that variations in the scores themselves are largely the product of school effects when the evidence clearly shows otherwise. It also neglects the fact that the scores themselves are artificial, and technically difficult to compare fairly over time or place. The mix of pupils within schools has implications for their raw-score standards of achievement (note, for example, that all schools deemed 'failing' in England have high levels of pupil poverty). But, in general, the lessons from PISA and other international studies are that mixing pupils between schools whether in terms of occupational class, income, or sex, leads to no depreciation in attainment.

However, as we have shown here, clustering pupils with similar backgrounds in schools tends to strengthen social reproduction over generations. With the potential determinants of these outcomes modelled in lifelong order, future aspiration is not particularly influenced by experiences of justice at school. Rather, it is here that the school mix has its greatest impact. The implications for policy are clear. To raise occupational and educational aspirations of the most disadvantaged in society a mixed school intake is desirable. If we wish disadvantaged pupils to raise their educational and occupational aspirations, one simple lever under our control is the policy of allocating pupils to schools. A mixed, comprehensive and undifferentiated system of schools is preferable in this regard to a tracked, selective, faith-based or specialist one. Socially segregated systems are unfair to the most disadvantaged and are at best zero-sum for attainment, in comparison to comprehensive systems.

Pupils in more comprehensive systems, who speak the language of their country of residence as a first language, are also more content that extra help is given to struggling pupils. This is true even when this help means that they may have less attention. If struggling pupils themselves are taken out of the analysis, ironically support becomes stronger. Thus, there is widespread but not universal support for a principle of fairness other than equal treatment for all.

In general there is a high level of equality in the responses across all countries and indicators of disadvantage. This is highly encouraging, since even if we were to conclude that some pupils are objectively disadvantaged, the pupils themselves are not aware of this or are not treated in any systematically inferior way. In fact those outside mainstream schooling were in many ways the most positive about their treatment and experiences. They often felt respected and cared for in appropriate ways. However, the number of cases was small and this is an important strand for future in-depth research.

Fairness for individuals, a sense of justice, and social cohesion are as much a product of experiences in schools, as lived in, as they are of the formal educational process. Teachers were not always perceived to be treating pupils fairly and consistently. There is a difference here between the personal experience of the pupils, and their perception of the treatment of a minority of others. A common view was that teachers had pupils who were their favourites, that rewards and punishments were not always applied fairly, and that certain groups of pupils were treated less fairly than others. How can a curriculum for citizenship, which embraces issues of fairness and democracy, be effectively implemented if the pupils themselves do not mostly believe that their teachers are generally capable of such behaviour? In one sense, it does not

really matter what the curriculum states about citizenship compared to the importance for pupils of experiencing mixed ethnic, sex and religious groups in non-racist and non-sexist settings, and of genuine participation in the decision-making of the schools

A similar conclusion comes from consideration of learning to trust other people. Most pupils do *not* trust their government. Most pupils also do not trust adults in general, and have learnt to be cautious in dealing with them. Teachers can help produce positive citizens both through the respect with which they treat pupils and in the way that they act to prevent the mistreatment of some pupils by others. The most important lever under our control to encourage support for the more disadvantaged relates to behaviour in schools. Schools and classes that are respectful, fair, and intolerant of bullying tend to have more supportive pupils. Citizenship is not merely a subject in school, it must be a way of life.

There is widespread agreement that all pupils should be treated with respect by teachers, their opinions valued, and not humiliated in any way. Pupils are happy for their assessed work to be discriminated in terms of quality and effort, but they complain that hard-working, high-attaining should not otherwise be favoured by teachers. This is a clear and strict application of the principle of merit, and one which teachers are apparently generalising from and so misusing. The lack of respect pupils report regularly in school extends also to their treatment by adults generally outside school. There is a clear relationship between pupils' experiences of school on pupils' sense of justice. As may be imagined, those treated best at school tend to have the most positive outlook on trust, civic values and sense of justice. Perhaps the biggest threat here lies in the actions of other pupils, and so any (in)actions of teachers to prevent the most obvious problems bullying, stealing and violence. Such problems are unpleasant in themselves. This much is obvious. What this new study indicates is that also contribute to pupils' sense of justice, and their trust in, and willingness to help, others in the future. For schools as societies this is a key issue.

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