

*Outcomes other than attainment*

# 11 Outcomes Other Than Attainment

All the models described so far have taken attainment in the second year as the outcome and have included attainment at the beginning of the first year as one of the independent variables. These models, therefore, have looked at attainment at the end of the second year after ‘controlling for’ attainment at the beginning of the first year. This chapter considers outcomes of schooling other than attainment. Each model takes one particular factor, such as attendance or the level of participation in school activities, as the outcome, and shows how this outcome can be predicted from the child’s sex, social class, ethnic group, and attainment at one point in time.

There are two reasons for adopting this approach. The first is the need to develop indicators of success other than attainment. For example, we might consider that a high rate of participation in school activities is a success in its own right, regardless of whether it is associated with academic attainment. From this perspective, interest focuses on differences between schools in terms of outcomes other than attainment, after controlling for the basic variables included in the model.

The second reason for considering these other outcomes is the need to understand the processes that influence attainment. It has already been established, for example, that a low level of criticism from teachers is associated with good progress in reading and maths, but the processes involved have not been fully described. Building a model to describe the influences on the index of blame itself may help to explain the processes that link criticism with progress in attainment. This will also allow us to check the conclusion provisionally reached in Chapter 7 that there are significant variations between schools in the extent to which children are criticised.

## **Participation**

Table 11.1 shows the fixed part of a model with the participation score as the outcome. The independent variables included are sex, social class, ethnic group and the second-year reading score. It has already been established that there is a relationship between participation and attainment. Here the second-year reading score is included in the model so that we can establish how far the rate of participation varies between schools after taking account of differences in attainment.

All of the variables included in the fixed model are significantly related to the participation score. Participation is higher for girls than for boys, it increases as we move up the social class scale, it increases with second-year attainment in reading, and it is lower for south Asians than for white children or those from other countries. Essentially this

model confirms findings from previous chapters, though it also shows that each of these variables is significantly related to participation after controlling for the effects of the others.

The random part of the model explores school differences in the level of participation. The best fit model is one that has the grand mean and sex in the random part. These school differences are shown to be significant at a very high level of confidence. The results also imply that the relative level of participation of boys and girls varies significantly between schools. The school differences are shown to be large. The full range of the participation score is from 0 to 5. The predicted score of a typical child can vary by more than one point depending on which school the child goes to. The analysis in Chapter 7 showed that the raw participation scores vary significantly between schools. The present analysis shows that these variations cannot be explained by the different characteristics of children in different schools, in terms of sex, social class, reading score or country of origin. It also confirms that girls score higher than boys, and that south Asians score lower than other ethnic groups, after controlling for the effects of the other variables.

The analysis also provides a more precise measure of the relationship between participation and attainment in absolute terms. The model implies that each single point on the Edinburgh Reading Test is worth 0.007 of a point on the participation score. As the range of the reading test is 155, this implies that a child with the maximum reading score is predicted to have a participation score one point higher than a child with the minimum reading score ( $155 \times 0.007 = 1.085$ ). In addition, the analysis in the last chapter showed that participation is related to *progress* in reading and in maths over the first two years.

Thus, there are important differences between schools in the level of participation, and there is a link between participation and attainment, and between participation and progress in attainment, at the individual level. However, no significant correlation has been demonstrated in this small sample of schools between participation and progress in attainment at the school level.

If participation is viewed as an indicator of success, then the results bring out four substantive points. First, schools are less successful with south Asians than with other ethnic groups in this respect. This may be partly because a number of school activities like plays or concerts are often not adapted to Asian cultures. Second, schools are more successful with girls than with boys in these terms. Third, in this as in other respects, they are more successful with middle-class than with working-class children. Fourth, the schools that do well and badly in terms of participation are different from those that do well and badly in terms of progress in attainment.

### **Praise and blame**

Findings reported in the last chapter show that a high level of criticism of the individual child is associated with poor progress in maths and reading, but a high level of praise is not associated with good progress. These findings suggest that variations in the level of praise and criticism are worthy of study, and that school differences in this respect may be of interest. Cross-tabulations set out in Chapter 7 show that there are considerable variations between schools in the volume of negative messages conveyed to children, but some of these differences may reflect the background characteristics of the pupils. To provide a more refined description of school differences, a variance components model was set up with the index of blame as the outcome. The fixed part of the model (Table 11.2) shows that sex and country of origin are both strongly related to the index of blame: girls tend to receive much less criticism than boys, and south Asians much less than those

originating from the UK or from other countries. The model also confirms the finding that low attainment in absolute terms is associated with a high level of criticism. It is interesting that, unlike most aspects of the educational experience, the index of blame is not significantly related to social class.

The best fit model has only the grand mean in the random part. It shows substantial school differences in the volume of criticism, amounting to 7.8 per cent of the variance. There is a difference of well over one point on this four-point scale between the highest and lowest school, which corresponds to a very considerable difference in the teachers' behaviour. The whole pattern of findings suggests that the extent of criticism is bound up with children's attainment at the individual level, for a high level of criticism is associated with low attainment in absolute terms and with poor progress in reading and maths. These latest findings show that there are genuine and large differences between schools in the extent to which children are criticised, after taking account of the effects of the basic variables (sex, social class, ethnic group and second-year reading score). Yet at the school level, there is no significant correlation between the mean index of blame and progress in reading or maths as predicted by the model. This may be because the sample of schools is too small to demonstrate the effect.

Generally, the pattern of results has suggested that the amount of praise that a child receives has much less significance than the amount of discouragement or criticism. For example, unlike the index of blame, the index of praise is not significantly related to progress in reading or maths. A model with the index of praise as the outcome (Table 11.3) shows that south Asians tend to receive less praise than those originating from the UK or from other countries; they also tend to receive less blame, so the results imply that in total they tend to receive less attention from teachers. There is also a small, but significant, tendency for girls to receive less praise than boys; this should be seen in the light of the finding that girls receive far less criticism than boys, so again they tend to receive less attention in total.

In the random part of the model, there are significant school differences in the index of praise, but these are much smaller than in the case of the index of blame, and account for only 2.6 per cent of the unexplained variance. There is a difference of about 0.3 on this four-point scale between the highest and the lowest school.

An interesting feature of this model is that it shows a significant, but weak, inverse relationship between the second-year reading score and the index of praise. This suggests that children who are not doing well in absolute terms tend to be praised or encouraged. At the same time, a model described in the last chapter showed that there is no relationship between the index of praise and the second-year reading score after taking account of the effect of the first-year reading score. Thus, the extent of encouragement is not related to progress in reading or maths, but it is weakly related to the absolute level of attainment at the end of the second year, in that the less successful children receive more encouragement.

### ***Parents' assessments***

It would be possible to take parents' opinions of the school as an indicator of success. To the extent that parents' opinions were given weight in relation to other indicators, this would be equivalent to saying that a good school is one that parents think is good. To help us evaluate this kind of approach, it is important to know how far parents' opinions are a reflection of their child's attainment. Here we are not so much interested in *progress* in reading and maths as in the *absolute level of attainment* at a reference point. The hypothesis is that parents' opinions of the school and about their child's progress may be related to

the child's current performance. By contrast, the possibility that parents' opinions might be related to the child's rate of progress seems remote, because parents' would not be in a position to assess something that is so hard to measure.

Cross-tabulations reported in Chapter 6 show significant, but rather weak, relationships between parents' opinions and the children's second-year scores. On the whole it seems surprising that parents' views are not more closely related to the child's attainment, and the pattern of findings shows that many parents of low-attaining children are satisfied with the school and believe that the child is making good progress with school subjects.

Parents' views have been analysed more intensively through a series of variance components analyses. In each case, the outcome was the second-year reading score; and sex, social class and country of origin were included as 'background' independent variables. In each model, the fourth independent variable was one of the assessments made by parents. There were four such assessments: satisfaction with the school overall, satisfaction with standards of behaviour at the school, assessment of how happy the child is at school, assessment of how well the child is getting on with school subjects. In line with the findings of the cross-tabulations, these multivariate analyses show that each of the parental assessments is significantly related to the second-year reading score. But the analyses also confirm that for the most part these relationships are not particularly strong. The range of the second-year reading score is from 0 to 155. The parental assessments were on four-point scales, so they have a range from 1 to 4. The main result of the multivariate analyses is to show by how many points the reading score rises for each additional point on the parental assessments. These estimates are shown below.

Overall satisfaction with the school	4.152
Satisfaction with behaviour	3.209
Happiness of the child at school	5.455
Child's progress with school subjects	10.162

There is a closer relationship than was evident from the cross-tabulations between the parents' assessment of the child's progress with school subjects and the second-year reading score. The present analysis suggests that each point of the parental assessment is worth 10 points on the reading score, so there is a difference of 40 points between children at the two extremes in terms of the parents' assessment. The other three parental assessments are related much less strongly to the second-year reading score.

In short, the parental assessment of the child's attainment is fairly strongly related to the child's actual attainment (after controlling for the effect of the background variables), while the parents' overall satisfaction with the school and its standards of behaviour, and their view of how happy the child is, are all rather weakly related to the child's attainment. These findings are coherent. The rating of attainment is fairly strongly related to actual attainment, whereas the other assessments are only weakly related to attainment, which only has a tangential bearing on the relevant matters. These findings therefore support the idea that parents' assessments have something to do with the facts about the child's attainment in absolute terms. However, they do not support the conclusion that parents' assessments are related to the *progress* of the child in school subjects. In fact, from multivariate models taking second-year attainment as the outcome and including first-year attainment among the independent variables, parents' assessments are shown to have no significant relationship with progress in reading or maths. This evidence is relevant to provision of the Education Reform Act 1988 that are designed to increase the role of parental choice. The results suggest that parents will prefer schools where the absolute

level of attainment is high, but will not be able to recognise schools which achieve good progress in attainment.

Parents' assessments have been more intensively analysed by treating them as the outcomes in variance components models. Four models were considered, each having a different one of the four assessments as the outcome. In each case, the independent variables included in the model were sex, social class, the second-year reading score and country of origin. The following conclusions can be drawn from the results (which will not be set out here in the form of detailed statistics).

1. Parents from the lower social classes tend to be more satisfied with the school overall and more satisfied with children's behaviour at the school than parents from higher social classes. As the second-year reading score was included in the model, this means that working class parents are more satisfied in these two respects than middle class parents assuming that the working class and middle class children are in fact attaining at the same level. There is no significant relationship between social class and the assessment of the child's happiness at school or the assessment of progress with school subjects, after controlling for the effect of the child's attainment and the other background variables.
2. Asian parents are a bit more likely than those originating from the UK or from other countries to think that their child is happy and progressing well and to be satisfied with standards of behaviour at the school. However, these differences, though statistically significant, are too small to be of importance. Nevertheless, these findings are important in showing that parents belonging to ethnic minority groups assess schools at least as favourably as those belonging to the white majority.
3. Girls are rather more likely than boys to be thought to be happy at school and to be progressing well, but these differences, while statistically significant, are trivially small.
4. For all four assessments, there are differences between schools that reach statistical significance. The proportion of the variance that is attributable to the school level is as follows.

	Per cent
Overall satisfaction with the school	7.6
Happiness of the child at school	6.1
Satisfaction with children's behaviour	6.6
Child's progress with subjects	1.7

The results here are similar for the first three ratings, but sharply different for the rating of the child's progress with school subjects. At the same time, this latter rating is much more closely linked than the others with the actual level of attainment of the child. A possible explanation is that the first three ratings are, as it were, school level ratings: they are essentially about the school rather than about the individual child. By contrast, the fourth rating is perhaps the only one that is genuinely about the child; hence there is much less variation attributable to the school level in this case.

5. In the model with the rating of the child's happiness as the outcome, there is found to be significant variation between schools in the nature (or slope) of the relationship between the second-year reading score and the outcome. In the fixed part of the model, the reading score is positively related to the rating of the child's happiness: in other words, higher attaining children are thought to be happier. However, the random part

of the model shows that this relationship varies significantly between schools, and there are, in fact, two schools where it is reversed, so that lower-attaining children are thought happier than higher-attaining children. This is an interesting pattern of results in principle, because it seems to imply that certain schools are perceived as being better for higher-attaining children and others as being better for lower-attaining children. However, it would be wrong to hang too much on the detailed results, because of problems of sampling error and statistical significance. Another reason for caution is that no comparable differences are shown where overall satisfaction, or satisfaction with the children's behaviour, is the outcome. However, in the model that takes the rating of the child's progress with subjects as the outcome, there are again differences between schools in the slope of the relationship with the second-year reading score. In this model, the reading score is much more strongly related to the outcome than in the others, so it is easier to detect differences in the slope of the relationship between schools. The result seems to imply that some schools convey the message to parents that high-attaining children are doing well, whereas other schools convey the message that children are doing reasonably well irrespective of their absolute level of attainment.

#### ***Parental contact with the schools***

We might choose to regard contact between parents and schools as a good in itself, and results presented in Chapter 6 appeared to show that the amount of contact varies significantly between schools. This result has been checked by setting up a variance components model in which the total number of visits to school in the past 12 months is the outcome. The independent variables included in the model are sex, social class, country of origin and the second-year reading score. The fixed part of the model confirms the results of the cross-tabulations. Parental contact with the schools is strongly related to social class (it is higher for the higher social classes); and south Asians have considerably less contact than other ethnic groups. There is no significant relationship between the child's attainment (second-year reading score) and the number of times the parents have visited the school. After allowing for social class differences, it seems that the parents of high- and low-attaining children are equally likely to visit.

In the random part of the model, the amount of parental contact is found to vary significantly between schools; school differences account for five per cent of the unexplained variance in the number of visits to school. We already know from the tabulations shown in Chapter 6 that there are significant differences between schools in the average number of visits by parents, but this result shows that significant differences remain after controlling for the main background variables. Differences in the amount of parental contact are not, for example, just a reflection of the variations in social class composition between schools.

Although contact between parents and the school may be regarded as a good in itself, there is no evidence from this study that contact by the parents is related to good progress by the child. This result is produced by a model in which the second-year reading score is the outcome, and the first-year score is included among the other background variables. When the number of parental visits is added to such a model, it is not found to be significantly related to the outcome.

Results presented in Chapter 6 show that when parents were *asked* to visit, this was often to discuss a problem of attendance, behaviour or progress. Also, whereas the *total number* of visits tended to be higher for the higher social classes, the proportion of parents

who had been *asked* to visit varied with respect to social class in the opposite direction. This conclusion can be checked by setting up a variance components model with the second-year reading score as the outcome and including the number of times the parents were asked to visit as an independent variable, along with sex, social class and country of origin. The results confirm that there is a significant inverse relationship between the number of times parents were asked to visit and the second-year reading score. Each summons to school is worth the deduction of 3.7 points from the second-year reading score.

This result underlines the fact that a measure of the total amount of contact between parents and schools conceals much variation in the nature and quality of contact. Results already presented in Chapter 6 show that school differences become much greater if the contact with parents is described in detail; and in particular, the proportion of parents who have been asked to visit to discuss problems varies between schools very sharply indeed.

### **Conclusions**

Participation in school activities varies substantially between schools, after taking account of the effect of background variables. Children who have a high level of participation have a higher absolute level of attainment than those with a low level of participation, and they also progress better in reading and maths. Thus, there is a link between participation and attainment at the individual level. However, there is no evidence of a link at the school level: that is, progress in reading and maths is not significantly higher at schools with high average participation scores. This could be because the sample of schools is too small to demonstrate the effect.

If participation itself is viewed as an indicator of success, then the results bring out four substantive points. First, schools are less successful with south Asians than with other ethnic groups in this respect. This may be partly because a number of school activities like plays or concerts are often not adapted to Asian cultures. Second, schools are more successful with girls than with boys in these terms. Third, in this as in other respects, they are more successful with middle-class than with working-class children. Fourth, the schools that do well and badly in terms of participation are different from those that do well and badly in terms of progress in attainment.

After allowing for the effect of background variables, there are substantial differences between schools in the extent to which teachers criticise the children. At the same time, there is strong evidence that the volume of criticism by teachers is bound up with attainment at the individual level: a large volume of criticism is associated with low attainment and progress in reading and maths. Yet at the school level, there is no significant tendency for schools where the teachers are critical to achieve slower progress in reading or maths. This may be because this sample of schools is too small to demonstrate such an effect.

After allowing for the effect of background variables, girls tend to receive much less criticism than boys, and south Asians much less than other ethnic groups. However, unlike most other aspects of the educational process, the volume of criticism is not related to social class.

The parents' assessment of the child's attainment is fairly strongly related to the child's actual attainment (after controlling for the effect of background variables); the parents' satisfaction with the school, and their assessment of how happy the child is, are rather weakly related to the child's actual attainment. These findings support the idea that parents' assessments have something to do with the facts about the child's attainment in absolute terms. However, they do not support the conclusion that parents' assessments are related to the *progress* of the child in school subjects. In fact, parents' assessments are

shown to have no significant relationship with progress in reading or maths. This evidence is relevant to the provisions in the Education Reform Act 1988 that aim to increase parental choice: in particular, the provisions that allow a school to opt out of local authority control on a vote of parents. The research findings suggest that parents will prefer schools where the absolute level of attainment is high, but will not be able to recognise schools which achieve good progress in attainment.

Working class parents are more easily satisfied with the school than middle class parents. If the scope for parental choice is expanded, therefore, then this is more likely to act as a stimulus on predominantly middle class than on predominantly working class schools.

Parents belonging to ethnic minority groups assess schools at least as favourably as those belonging to the white majority.

There are substantial school differences in parents' assessments of the schools, and significant, though smaller, school differences in their assessments of the child's progress. There is evidence that certain schools are perceived as being better for higher-attaining children and others as being better for lower-attaining children.

A multivariate model confirms that middle class parents have substantially more contact with the schools than working class parents, and that south Asians have substantially less contact than other ethnic groups. The amount of parental contact varies significantly between schools, after allowing for the effect of background variables. If, therefore, parental contact is regarded as a good in itself, then schools have widely different levels of success in this respect. However, there is no relationship between the total amount of parental contact and the child's attainment or progress.

At the same time, parents of low-attaining children are more likely to be *asked to visit* than parents of high-attaining children. This confirms the finding that when parents are asked to visit, this is mostly to discuss problems. Each summons to school is found to be worth the deduction of 3.7 points from the second-year reading score. This result underlines the fact that a measure of the total amount of contact between parents and schools conceals much variation in the nature and quality of the contact.