

TEACHERS' ASSESSMENTS OF THE SCHOLASTIC PROGRESS OF PUPILS

THOMAS KELLAGHAN, JOHN MACNAMARA AND ELIZABETH NEUMAN

*Educational Research Centre,
St Patrick's College, Dublin*

Teachers (n 166) of a representative sample of eleven-year old Irish school children (n 479) responded to a questionnaire about (i) the general progress of the children and (ii) the progress of children in individual subjects. The general progress of 25 per cent of the children was regarded as 'unsatisfactory', 66 per cent were judged as having difficulty with at least one subject. Difficulty with arithmetic or Irish was more likely to be reported than difficulty with English.

Up to the present, the Irish primary school has been organised on the basis of 'standards'. The work to be completed each year is laid down in regulations of the Department of Education (4) and children are expected to complete the work of a standard satisfactorily before proceeding to the next level. This has led to many children having to repeat a year in the same standard (3).* The details of the work at each standard are not laid down precisely, in deciding the level of work required, teachers probably rely on the traditions of the school, their own accumulated experience and the assessment of inspectors.

A second feature of Irish education is the almost complete absence of the use of standardised tests. Such tests would provide teachers with outside norms in assessing the progress of their pupils. In the absence of such tests, the teacher again has to rely on his own accumulated experience (often limited to a small number of schools) and on the assessment of inspectors.

With these two characteristics of the Irish school in mind, the present study was designed to look at some aspects of how teachers assess the progress of their pupils. Specifically, we sought information on the following points:

* The situation is changing in the last two years. In March, 1967, the Department of Education, in a circular to managers and principal teachers of national schools discouraged the retention of pupils for more than a year in any standard. 'The normal procedure,' the circular stated, 'should be that a pupil is promoted to a higher standard at the end of each school year' (Imi 10/67).

- 1 What proportion of pupils do teachers feel are making unsatisfactory progress within the limits of the present curriculum?*
- 2 Do teachers assess the progress of boys and girls differently?
- 3 Are teachers more inclined to pick one subject rather than another as a source of difficulty for pupils?
- 4 Is the teacher's assessment of the overall progress of the child influenced particularly strongly by his perception of the child's progress in any individual subject?
- 5 How are teachers' estimates of a child's progress related to the verbal reasoning ability of the child as assessed on a standardised test?

No objective information on the scholastic progress of the children was available for the present study. We were primarily interested in how teachers perceive the school progress of their pupils. Teachers' perceptions are important, whether or not they coincide with other more objective assessments, how a teacher views a pupil is likely to influence how he behaves towards him. We did, however, have one objective measure—the scores of the pupils on a verbal reasoning test, and so we were able to relate teachers' assessments to these scores.

METHOD

Sample

A random sample of 500 children was drawn from a larger sample of 2,164 eleven-year old children, who had taken part in the standardisation of a verbal reasoning test. The standardisation sample had been selected so as to be representative of all eleven-year old children in the country attending primary schools (national and private, but not special). Details of the parent sample are reported elsewhere (2). Questionnaires were sent to the teachers of all pupils (167 teachers). All but one teacher returned the questionnaires. Not every question was answered in the questionnaires which were returned however, and so for statistical analysis the sample was reduced to 479, slightly more boys than girls were lost from the sample in this way.

Procedure

After the children had taken the Drumcondra Verbal Reasoning Test, teachers of the selected pupils were requested by post to complete a

* In September 1969, a new curriculum was introduced into Irish primary schools, it promises to be much more child-centred than the curriculum that was in operation when the present study was carried out.

questionnaire about each child. Among other things, they were asked

- (i) if they regarded the pupil's progress as satisfactory (yes or no),
- (ii) had the pupil any difficulties in any of the following subjects (yes or no for each subject) Irish reading, oral Irish, written Irish, English reading, oral English, written English, mechanical arithmetic, problem arithmetic

RESULTS

1 General progress

Teachers said that they regarded the general progress of 354 children (74.5 per cent) as being 'satisfactory', they regarded the progress of the remaining 125 children as unsatisfactory (Table 1)

TABLE 1
OVERALL PROGRESS OF PUPILS

| | Satisfactory | Unsatisfactory |
|-------|--------------|----------------|
| Boys | 164 | 67 |
| Girls | 190 | 58 |
| Total | 354 | 125 |

2 Sex differences

Figures for boys and girls are presented separately in Table 1. The application of the chi-squared test revealed no significant difference between the number of boys and the number of girls regarded as making unsatisfactory progress ($\chi^2 2.25$, $df 1$)

3 Difficulties with specific subjects

Teachers were asked about specific aspects of subjects (e.g. reading and writing), but their responses were combined to form a single rating for each subject. A child was considered to have difficulty with the subject if a teacher noted that he had difficulty with one or more aspects of it. The following are the numbers of pupils whom teachers regarded as having difficulty: Irish—239 (49.90 per cent), English—118 (24.63 per cent), Arithmetic—230 (48.02 per cent). The number judged as having difficulty with no subject was 168 (35.07 per cent).

Table 2, which was compiled for purposes of statistical analysis, refers only to children who were judged to be having difficulty, and each child was entered only once in the table. From the table it can be seen that 316

TABLE 2
DIFFICULTIES IN SPECIFIC SUBJECTS AND COMBINATIONS OF SUBJECTS

| Difficulty with | Actual number | Expected number |
|-------------------------------|---------------|-----------------|
| Irish only | 55 | 45.14 |
| English only | 3 | 45.14 |
| Arithmetic only | 71 | 45.14 |
| Irish and English only | 25 | 45.14 |
| Irish and Arithmetic only | 72 | 45.14 |
| English and Arithmetic only | 3 | 45.14 |
| English, Irish and Arithmetic | 87 | 45.14 |
| Total | 316 | |

children (65.97 per cent of the total) were judged as having difficulty with at least one subject. For the data in Table 2, we will test a model based on three assumptions (i) that any particular subject is as likely as not to be judged a source of pupils' difficulties, (ii) that any one subject is as likely to be judged a source of pupils' difficulties as any other subject, (iii) that difficulties in subjects are independent of each other. The three subjects (Irish, English and arithmetic) give seven possible categories of difficulty (Table 2). On the basis of the assumptions just stated, all seven categories are equally likely to occur. Hence, on the basis of this model, the theoretical expectation for any category will be one seventh of the total number of persons who had difficulty. Thus for each subject and combination of subjects in Table 2, the expected frequency is 45.14. The application of the chi-squared test indicated that the observed frequencies depart significantly from the expected frequencies ($\chi^2 = 159.43$, $df = 6$, $p < 0.001$). A glance at the same table reveals that any other model that might be suggested, such as one based on the expectation of a one in three, or a two in three chance of a subject causing difficulty, will fit the observed pattern of difficulties even less well than the one we have just tried.

The above analysis shows that our first assumption, i.e., that the chances are one in two of any particular subject being a source of difficulty, is not justified. This is borne out even more strongly in two subsidiary analyses

TABLE 3
PUPILS WHO HAVE DIFFICULTY WITH ONE SUBJECT ONLY

| Difficulty with | Actual number | Expected number |
|-----------------|---------------|-----------------|
| Irish only | 55 | 43 |
| English only | 3 | 43 |
| Arithmetic only | 71 | 43 |

In the first of these (Table 3), we test the assumption, that among pupils with difficulty in only one subject, the number of pupils experiencing difficulty in each of the three subjects is the same. This analysis also yielded a significant chi-squared value ($\chi^2 58.97$, $df 2$, $p > 001$). The second subsidiary analysis was a test of the assumption that amongst children who experienced difficulty in a pair of subjects the numbers for the three pairs are equal (Table 4). Again the chi-squared value is signi-

TABLE 4
PUPILS WHO HAVE DIFFICULTY WITH TWO SUBJECTS

| Difficulty with | Actual number | Expected number |
|------------------------|---------------|-----------------|
| Irish and English | 25 | 33.3 |
| Irish and Arithmetic | 72 | 33.3 |
| English and Arithmetic | 3 | 33.3 |

ficant ($\chi^2 74.62$, $df 2$, $p > 001$). In a final analysis, we tested the assumption that an individual was equally likely to experience difficulty in one, two or three subjects (Table 5). Once again, the observed frequencies depart significantly from theoretical expectations ($\chi^2 8.82$, $df 2$, $p > 05$).

TABLE 5
PUPILS WHO HAD DIFFICULTY IN ONE, TWO OR THREE SUBJECTS

| Difficulty in | Actual number | Expected number |
|----------------|---------------|-----------------|
| One subject | 129 | 105.3 |
| Two subjects | 100 | 105.3 |
| Three subjects | 87 | 105.3 |

From all this, it emerges that our first two assumptions are not justified. The chances are not one in two that any particular subject will be associated with pupils' difficulties, and some subjects are more likely than others to be associated with pupils' difficulties. Though the data do not permit a rigorous test of the third assumption, i.e. that difficulties occur independently, it is extremely unlikely that they do. The pattern of frequencies in Table 4 suggests a strong tendency for Irish and arithmetic to go together as subjects with which pupils experience difficulty, there is an equally strong tendency for English and arithmetic not to occur together.

4 General progress related to progress in specific subjects

The consistency of teachers' ratings was examined by comparing ratings of overall progress with ratings of progress in individual subjects. If pupils are judged as having difficulty with three subjects, teachers should be more likely to regard their general progress as unsatisfactory than if they have difficulty with two subjects, and likewise the pupil with difficulty in two subjects should be regarded as less satisfactory generally than the pupil

TABLE 6
DIFFICULTY IN NUMBER OF SUBJECTS RELATED TO JUDGEMENTS
OF GENERAL PROGRESS

| Subjects | Number with difficulty | No rated generally unsatisfactory | |
|----------------|------------------------|-----------------------------------|-------|
| | Actual | Expected | |
| One subject | 129 | 26 | 43 77 |
| Two subjects | 120 | 42 | 40 71 |
| Three subjects | 87 | 46 | 29 52 |

with difficulty in one subject. The expected frequencies in Table 6 are based on the null hypothesis that number of subjects with which pupils have difficulty and assessments of general progress are unrelated. The expected frequencies of children whose progress was considered unsatisfactory were calculated on the assumption that the proportions in column 1 (numbers with difficulty in one, two or three subjects) would be preserved in column 3 (numbers whose general progress was unsatisfactory), if there was no relationship between judgement of general progress and the number of subjects with which the child was having difficulty. The observed numbers however do not fit the expected pattern ($\chi^2 = 16.41$, $df = 2$, $p < 0.001$). Instead the figures support the consistency of teachers in their ratings—the more

subjects a child had difficulty with, the greater the likelihood that his teacher would regard his general progress as unsatisfactory

Next we look at the contribution of individual subjects and their combinations to the teacher's assessment of general progress. Table 7 is constructed on the assumption that difficulty in any one subject is as likely as

TABLE 7

DIFFICULTY IN SPECIFIC SUBJECTS RELATED TO JUDGEMENTS
OF GENERAL PROGRESS

| Subjects | Number with difficulty | No rated generally unsatisfactory | |
|------------|------------------------|-----------------------------------|-------|
| | Actual | Expected | |
| Irish | 55 | 10 | 11 35 |
| Arithmetic | 71 | 16 | 14 65 |

difficulty in any other to result in an overall rating of unsatisfactory progress. Because of the small numbers, it was necessary to exclude from the analysis pupils who had difficulty with English. The chi-squared value for the figures in the table was not significant ($\chi^2 = 28$, $df = 1$). The precise subject a pupil has difficulty with does not seem to influence the teacher's assessment of his overall progress.

Table 8 is constructed on the same basis as Table 7, except that combinations of subjects rather than individual ones are considered. As the number with difficulty in English and arithmetic is small, this category is

TABLE 8

DIFFICULTY IN COMBINATIONS OF SUBJECTS RELATED TO
JUDGEMENTS OF GENERAL PROGRESS

| Subjects | Number with difficulty | No rated generally unsatisfactory | |
|----------------------|------------------------|-----------------------------------|-------|
| | Actual | Expected | |
| Irish and English | 25 | 12 | 10 30 |
| Irish and Arithmetic | 72 | 28 | 29 69 |

excluded from the analysis. The chi-squared value for the figures in Table 8 is not significant ($\chi^2 = 38$, $df = 1$). No one combination of subjects, more than another, seems to carry weight in the teacher's assessment of the general progress of the child.

5 *Teachers' assessments and verbal reasoning scores*

Teachers' ratings of the general progress of pupils (satisfactory or unsatisfactory) were correlated with verbal reasoning scores (Drumcondra Verbal Reasoning Test) The biserial correlation between the two was found to be .49

DISCUSSION

The first thing that strikes one about the findings is the relatively large number of children (25 per cent) whose progress was regarded by teachers as unsatisfactory The number of pupils who were regarded as having difficulty in at least one subject (66 per cent) was even larger still It is not easy to find comparative data for these figures from other school systems For one thing, studies vary considerably in the criteria of progress they employed An examination of a number of studies carried out in the United States reveals that the percentage regarded as making normal progress can range from twenty-five to seventy (8) Our own figures for unsatisfactory progress may not seem very large in the light of these estimates, however, in making the comparison, it should be borne in mind that promotion from one grade to the next is much more likely to be automatic in an American school than in an Irish one If we had taken grade repetition into account, our estimates of numbers with learning difficulties might have been higher

When one looks at progress in specific subjects in our study, one finds that not all subjects are equally likely to cause difficulty Children are more likely to be reported as having difficulty with arithmetic or Irish than with English This finding is corroborated in the data concerning pupils who have difficulty with two subjects, more difficulty being associated with arithmetic and Irish as a combination than with other combinations The small number of pupils reported as having difficulty with English calls for comment A number of possible explanations suggest themselves One is that children simply do not have difficulty with English A second is that teachers set a lower standard for English than for other subjects Evidence that Irish children when assessed on objective tests, do less well than English children on tests of attainment in English (5, 6) lends support to the latter view A third possible explanation which is perhaps related to the second, is that teachers are less interested in the progress of their pupils in English than in other subjects In an earlier study Macnamara (6) found a tendency for inspectors to rate highly teachers whose pupils achieved a high standard in Irish or in arithmetic, but not in English He inter-

preted these findings as an indication of an official attitude to the relative importance of the three subjects. The present findings are further support for this interpretation, with the addition that teachers may be responding to such an attitude in their own assessments of pupils' progress. Interestingly, in their assessment of the general progress of pupils, teachers, did not regard either Irish or arithmetic as carrying more weight. Progress in both subjects seemed to contribute equally to a teacher's judgement of a child's general progress. Not enough pupils were rated as having difficulty with English to allow us to examine the relationship between difficulty in English and the teacher's estimate of pupils' general progress.

Two further points emerge from our findings. One is that teachers' judgements of difficulty in individual subjects are related to their judgements of general progress, the more subjects a pupil has difficulty with, the more likely a teacher is to regard his general progress as unsatisfactory. The second concerns differences in teachers' perceptions of boys and girls as pupils. Studies elsewhere suggest that teachers are likely to differ in their assessment of the scholastic progress of girls as compared with that of boys, even when objective tests can detect no difference (1, 7). No evidence of this occurred in our study, the proportion of girls reported to be making satisfactory progress did not differ significantly from the proportion of boys.

In conclusion, the findings of this study suggest that pupils are being set standards which, under present conditions, are not being reached by a large proportion of children. It seems that, when assessing the work of their pupils, teachers are more concerned with an arbitrary standard than with the abilities, aptitudes and interests of individual pupils. We do not wish, of course, to underestimate the complexity of teachers' judgements about pupils' progress. A teacher obviously may take many things into account in deciding whether or not a pupil is making satisfactory progress—the pupil's ability, the amount of effort the teacher thinks he is making, the pupil's past history of attainment, his home background (cf. 9). Our finding on the relationship between verbal reasoning score and assessment of progress, for example, indicates that the teachers in our sample did not disregard the verbal ability of pupils in assessing progress (The correlation coefficient of .49, which we observed between the two variables, means that one could control approximately 25 per cent of the variance of teachers' estimates of pupils' progress from a knowledge of verbal reasoning score). To some extent, teachers' expectations are adjusted to a pupil's ability. This indicates that there is some flexibility in standards.

Nevertheless, we cannot disregard the finding that many pupils are not seen as making satisfactory progress in one or more subjects, at least 25 per cent of the school population are in some sense judged to be 'failing'. The possible effects of such a situation on the morale of teachers and pupils can hardly be ignored.

Our findings underline the view that the idea of a single standard to be attained by all children is not very realistic when one considers the wide range in abilities and the varying rates of development that one finds among children. The use of objective tests, we feel, could help teachers to take individual differences into account in their teaching and in their expectations of pupils and to shift their focus of attention from arbitrary standards to the child. We hope that the proposed new curriculum for Irish schools will be adequately supported with the materials necessary for its implementation, and these include suitable techniques of assessment and diagnosis. Granted such support, the new curriculum should go a long way to putting the child in the centre of the educational process, which, most educationists would agree today, is where he has always belonged.

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