

TEACHERS' RATINGS OF READING ATTAINMENT AS A FUNCTION OF PUPILS' SOCIO-ECONOMIC STATUS*

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This paper describes an empirical study of the widely-held view that teachers tend to exaggerate the importance of socio-economic status as a determinant of individual pupil performance. The inter-relationships between socio-economic status, teachers' ratings of pupils' reading performance, and pupils' scores on a standardized test of reading for a sample of 28 second-standard teachers and their 804 pupils were examined. The relationship between teacher rating and socio-economic status was found to be stronger than the relationship between reading test score and socio-economic status when data for the total group of pupils were examined (thereby providing some support for the hypothesized teacher bias). However when analyses within individual classes were carried out, the tendency for socio-economic status to relate more closely to teacher rating than to test score all but disappeared.

The findings of research demonstrating the relationship between social class and scholastic performance have been so well disseminated that there can be few teachers who do not know of them. A number of writers have expressed the fear that teachers' familiarity with this research may have undesirable effects in that it may lead the teachers to exaggerate the importance of social class when assessing pupils' ability and attainment. Hargreaves (3), for example, argues that

Teachers read the results of educational research and know that working-class pupils are likely to reach lower levels of attainment and behaviour in school than middle-class pupils. The danger is that teachers may then use this knowledge to reinforce their conceptions of working-class pupils ... Research evidence can thus facilitate the application of labels and the promotion of self-fulfilling prophecies (pp. 29-30).

* An earlier version of this paper using a slightly different data set was presented to the Fifth Annual Conference of the Reading Association of Ireland in September 1980. The findings and conclusions of the versions of the paper are identical.

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Stein (8) applies this thinking specifically to reading. She suggests that trainee teachers are taught that no one can learn to read without first acquiring a 'tangled web' of reading readiness skills and that, as a result of the so-called 'culture of poverty', poor children are ill-equipped to master these skills.

These views suggest that teachers may be lead to exaggerate the importance of socio-economic status as a determinant of scholastic ability and performance. Hargreaves (2) refers to teachers' interpretation of the results of research on the importance of social class as a factor in school performance as a 'sociological myth' in which it is believed that a 'bad' home is sufficient explanation for any educational problems a child may encounter, furthermore, because home conditions are beyond the school's control, there is little that teachers can do to rectify the situation.

The work of Nash (7) suggests a potentially useful way of examining this situation empirically. Like Hargreaves, Nash also contends that teachers' familiarity with research on the relationship between socio-economic status and attainment leads them to take social class into account when assessing the ability and attainment of their pupils. He argues that such an application of research findings is inappropriate. Although a positive association between social class and scholastic performance has been found among large groups of pupils, it is unlikely that a similar relationship would be observed within the smaller group of pupils with whom any individual teacher would be concerned and who, according to Nash, would be more homogeneous with respect to social class than the more representative groups on whom research findings are based. The value of Nash's contribution lies in the fact that his thesis presents us with a formulation of the 'sociological myth' hypothesis which is readily testable. It should follow from his position that if inter-relationships between socio-economic status, a teacher's judgements of attainment, and objective measures of attainment such as standardized tests were examined at the level of individual classrooms, one should find a stronger relationship between socio-economic status and teachers' assessment of attainment than between socio-economic status and an objective measure. In the present paper we shall test this formulation of Nash's hypothesis in relation to reading for teachers of second standard in Irish primary schools.

METHOD

Sample

The teachers who provided data for the present study were a sample of standard 2 teachers participating in a larger study (5). The sample was selected in two stages. In the first stage, the population of Irish primary schools was stratified by location (city, town, and rural) and sex served (boys, girls, and mixed) and 15 were randomly chosen from each of seven of the nine resulting strata. (When the sample was originally drawn there were very few city and town schools serving both boys and girls; hence these strata were omitted.) In the second stage, all standard 2 teachers in the 105 selected schools whose classes contained 15 or more pupils were listed and a random sample of 28 teachers selected from the list. These 28 classes contained 804 pupils in all. The elimination of small classes from the sample was necessary in view of the intention to conduct separate statistical analyses within each class. Since small classes tend to be found mainly in rural schools, the final sample is biased in favour of teachers in town and city schools.

Instruments

The Drumcondra English Test, Level 1 (1) was used to provide an objective measure of English reading attainment. The test yields a total reading score made up of three subtest scores, vocabulary, reading comprehension, and word analysis. Raw scores were used in analyses.

The teachers' assessment of reading was obtained in response to a request to teachers to rate their pupils' general progress in English reading on a five-point scale ('very poor', 'below average', 'average', 'above average', 'excellent'). Values of 1 to 5 were assigned to the five points on the scale, 1 indicating 'very poor', 2 'below average', and so on.

A measure of the socio-economic status of each pupil was computed based on information about father's occupation obtained from teachers. Occupations were assigned to one of the following seven categories: professional/managerial, white collar, farmer with 50 acres or more, skilled worker, unskilled worker, farmer with less than 50 acres, and unemployed or occupation unknown. This classification is widely used in this country by commercial marketing research firms (4) and is assumed in the present study to represent an approximate ordering of categories in terms of both social status and level of educational attainment. Preliminary investigations using criterion scaling on similar data have shown this assumption to be not unreasonable. In the analyses, values of 7 to 1 were assigned to the seven categories in the order in which they are listed above.

Procedure

Teachers administered the reading test to their pupils in the middle of the first term of the school year and returned the test material to the Educational Research Centre for scoring. At around the same time the teachers rated each of their pupils' reading attainment and provided information on the occupations of each pupil's father.

RESULTS

An analysis of covariance was performed to test, in its simplest form, the hypothesis that teacher ratings of pupils' progress in English reading are a function not only of the pupils' reading attainment as measured by an objective test, but also of their socio-economic status. The analysis revealed a significant relationship between socio-economic status and teacher rating of reading progress after controlling for performance on the objective test of reading attainment (Table 1). This relationship might be taken as *prima facie* evidence for the 'sociological myth' hypothesis.

However, analyses based on data derived from individual teachers treated separately might not exhibit the same phenomenon. Accordingly, covariance analysis was performed separately for each of the 28 classes in the sample. In the case of only two teachers was the relationship between socio-economic status and teacher rating significant when scores on the objective test were co-varied. Thus, only two of the 28 teachers provided data which could be said to support the 'sociological myth' hypothesis.

TABLE 1

ANALYSIS OF COVARIANCE DATA FOR TEACHER RATING
OF PROGRESS IN ENGLISH READING AS A FUNCTION OF
SOCIO-ECONOMIC STATUS CONTROLLING FOR
OBJECTIVELY MEASURED ENGLISH READING ATTAINMENT

Source of Variation	SS	df	MS	F	p
Covariate	268.08	1	268.08	407.49	.001
Indep. variable	9.84	5	1.97	2.99	.011
Residual	524.99	798	0.65		
Total	802.92	804	0.99		

An alternative analytical approach is to compute for each class the correlation between socio-economic status and teacher ratings of reading progress, and the correlation between socio-economic status and objective reading test scores, and to plot one set of correlations against the other. Support for the 'sociological myth' would be obtained if the former correlations were found, in general, to be greater than the latter. The two sets of correlations are shown in Table 2 and plotted in Figure 1. In the figure, the diagonal dotted line divides the plane into two regions. All points falling in the region above the line represent teachers whose ratings of reading progress correlated more highly with pupils' socio-economic status than did the scores on the objective test, while points falling in the region below the line represent teachers whose ratings correlated less highly with socio-economic status than did the test scores. Most teachers fall quite near to this line, with just a few cases well above it. The impression that the data convey is that, insofar as the hypothesis is supported, it is a feature of the behaviour of a small number of teachers (or classes).

The arguments from which we derived the hypotheses for the present study are based on the belief that the distribution of socio-economic status is more homogeneous within individual classes than in the school-going population as a whole. Furthermore, one would expect that teachers' applications of the findings of educational research should be most in evidence in classes in which the socio-economic distribution is markedly more homogeneous than in the general population.

An examination of the distribution of socio-economic status within classes in the present study revealed considerable variety among classes. There was, however, little evidence of an overall trend towards greater homogeneity within classes compared to the distribution of socio-economic status in the overall sample. Of the 28 classes in the study, 10 were found to have socio-economic status distributions indistinguishable from the distribution of the overall sample (using a chi-square test of association). The 18 classes which did not resemble the overall sample showed no clear trend towards greater or lesser homogeneity.

In an attempt to relate the shape of the within-class socio-economic status distribution to teachers' tendencies to attend to socio-economic status in assessing pupils' reading progress, a cross-classification was made between teachers for whom the correlation of their rating of reading and socio-economic status was higher than the correlation between test score and socio-economic status and teachers for whom the reverse was true (teachers who fell above and below the cutoff line in Figure 1) on one hand, and those teachers whose classes resembled the overall sample in

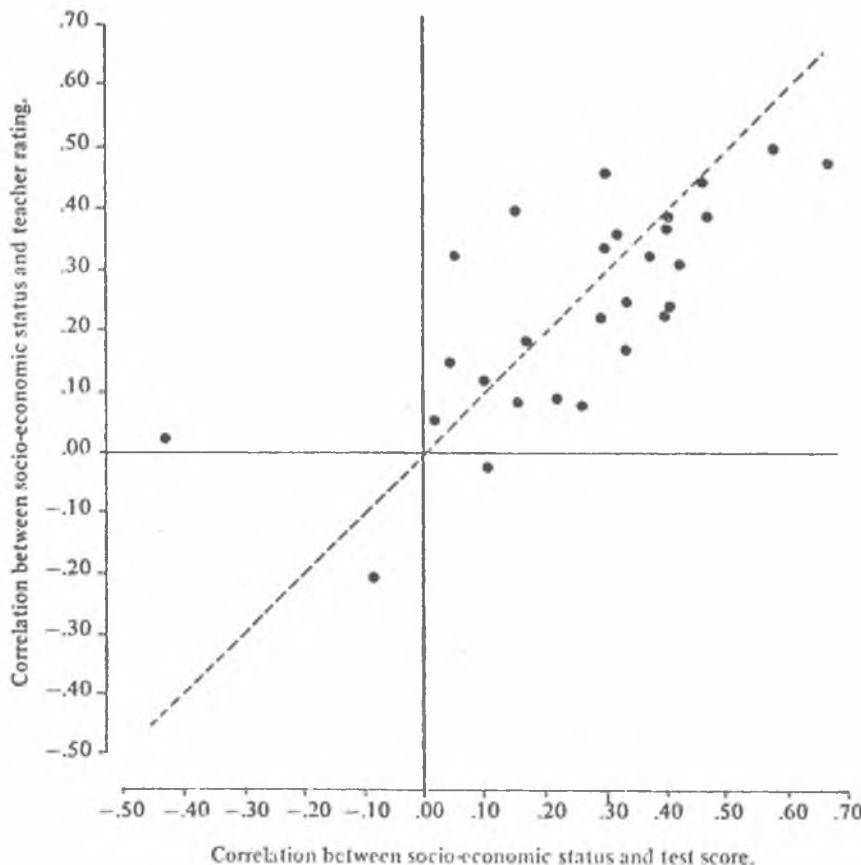
TABLE 2

**CORRELATIONS BETWEEN PUPIL SOCIO ECONOMIC STATUS
AND TEACHER RATING OF READING PROGRESS AND
READING TEST SCORE**

Teacher	No. of Pupils	SES and Rating Correlation	SES and Test Score Correlation
1	41	317	048
2	21	357	318
3	32	241	311
4	14	386	461
5	24	389	391
6	34	177	175
7	27	221	279
8	28	457	285
9	30	051	001
10	26	495	575
11	42	227	390
12	14	379	392
13	26	330	296
14	25	317	360
15	23	093	211
16	13	474	666
17	27	081	154
18	21	- 215	- 092
19	34	305	414
20	36	094	259
21	29	165	330
22	36	231	392
23	36	- 020	109
24	30	397	155
25	25	119	110
26	32	449	452
27	14	022	- 431
28	36	146	034

FIGURE 1

CORRELATION BETWEEN SOCIO-ECONOMIC STATUS
AND TEACHER RATING OF READING PROGRESS
PLOTTED AS A FUNCTION OF THE CORRELATION BETWEEN
SOCIO-ECONOMIC STATUS AND READING TEST SCORE



socio-economic status distribution and those whose classes did not on the other (Table 3) The cross classification showed no evidence of an association between within-class socio-economic status distribution and a tendency to over attend to socio-economic status in rating reading progress

TABLE 3

TEACHERS CATEGORIZED BY SOCIO ECONOMIC STATUS DISTRIBUTION
OF THEIR CLASS AND RELATIVE VALUE OF CORRELATIONS
OF THEIR RATINGS OF PUPILS READING ATTAINMENT WITH
PUPIL SOCIO ECONOMIC STATUS

SES Distribution	Value of teacher rating/SES correlation relative to test-score/SES correlation			Total
	Correlation of teacher rating with SES <i>higher</i> than correlation of test with SES	Correlation of teacher rating with SES <i>lower</i> than correlation of test with SES	13	
Class SES distribution like overall sample	5	13	18	18
Class SES distribution not like overall sample	5	5	10	10
Total	10	18	28	28

DISCUSSION

In this study we examined empirically an assertion which has frequently been made in the educational literature – that teachers tend to exaggerate the importance of home background as a determinant of individual pupil performance and so become prey to a so-called 'sociological myth' The results of our analyses indicate that while there is some evidence for the hypothesized teacher bias when data from a large group of pupils are examined, there is little or no support for the hypothesis when the more meaningful procedure of carrying out analyses within individual classes is adopted

Before dismissing the fears of those who feel that teachers may place undue emphasis on socio-economic status when assessing their pupils, a number of points need to be made Firstly, our sample was not very large

and somewhat unrepresentative in that it contained a disproportionate number of teachers in urban schools. It could be argued, of course, that this latter aspect of the sample would be likely to increase rather than decrease the probability of finding support for the hypothesis. A second area where this study is open to criticism is in relation to our measure of socio-economic status. It is probably true that insofar as teachers react to the home backgrounds of their pupils, they most likely react to more subtle features of the home than the occupation of the father. Although father's occupation is generally regarded as an adequate proxy for more sophisticated measures of home environment (9), it may not be sufficiently sensitive to detect the phenomenon under investigation.

A more serious problem with our study is that it involved an attempt to test an hypothesis which was formulated in the context of the British and American educational systems in the rather different Irish context. This raises the possibility that some of the circumstances which gave rise to the hypothesis in Britain and the United States may not apply in this country. For example, it might be argued that Irish teachers have had less exposure to research on socio-economic status differences than their counterparts in other countries. It may be that if research becomes a more important element in the education of teachers in Ireland and if there is a more widespread dissemination of research findings, then Irish teachers may become more susceptible to the 'sociological myth' than they appear to be at present.

Although little empirical support for the phenomenon was found in our study, we feel that the sociological myth remains a valuable concept in that it, at least, alerts us to the existence of a problem, which it may be possible to prevent. It is undoubtedly true that there is a danger that teachers and others may misinterpret the results of research in ways which may lead to an exaggeration of the importance of home background as a determinant of scholastic performance. It is equally true that teachers' assessments of their pupils should, as far as possible, be based on educational and psychological criteria rather than economic or demographic ones such as socio-economic status.

The conventional wisdom in present-day educational literature poses a dilemma for teachers. On the one hand, they are urged to acquaint themselves with the environmental conditions in which their pupils live so that they can respond sympathetically to any problems which may arise (6). On the other hand, they are being warned against using any information they may have on home background in making judgements about pupils. Clearly teachers are expected to maintain a difficult and delicate balance between these two types of admonition. The evidence

from this study indicates that Irish primary teachers are reasonably successful in maintaining this balance

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