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Raising students' performance in relation to NFER CAT scores

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AIM

To identify actions teachers can take to improve learning through an examination of students' academic performance in relation to prior attainment as measured by NFER Cognitive Abilities Test scores.

SUMMARY OF FINDINGS FOR THIS CASE STUDY

★ It is possible to identify students who do better or worse than expected at GCSE on the basis of their work at age 11, and there are some differences between the two groups in their responses to the questions asked in this research.

★ We are more likely to influence the learning of students who perform worse than expected if we target our actions at Key Stage 3 (Years 7 to 9).

 \star Students need to be convinced by teachers that they can make a difference to their ability or by luck.

well as poor aspects of work.

★ Teachers need to guard against labelling students in ways that prevent the further analysis of their learning and motivational difficulties.

★ Students who achieve better than expected seem to be given more latitude in non-conformity than are those who achieve worse than expected. It may be that more latitude should be given to the latter students.

 \star The basic skills of students must be high enough to give them access to the curriculum.

A research project commissioned by the Teacher Training Agency as part of the Teacher Research Grant Scheme 1996/97

- their learning if they work hard rather than thinking that everything is decided by
- * Students and teachers need to address the issue of communication about good as



Introduction

This study grew out of an interest in what teachers and students can do to raise the levels of educational performance of students.

A common psychological perspective is that educational performance is determined by both motivation and ability. It is likely, therefore, that students who do well in relation to their measured ability (referred to subsequently as "over-achievers") are those who can capitalise on positive motivational factors.

Comparison of under-achievers and over-achievers might be expected to reveal those motivational factors on which the students and teachers, or both, might focus their attention.

The following sections highlight areas teachers need to consider in an attempt to improve learning and suggest actions for teachers and students.

This research forms part of an extensive series of projects undertaken by the Effective Learning Group at John Mason School. The group is composed of teachers from the school and two higher education researchers who have formed a long-term link with the school.

When to act

Since students who do worse than expected ("underachievers") perceive their motivation in Key Stage 3 to be lower than those who subsequently do better than expected, actions need to be targeted at Key Stage 3 in relation to student checklists for learning. In particular, it is likely to be useful to focus on key issues relating to the ways in which increasing effort improves learning.

"Students did not differ much in their perceptions of their own motivation according to whether they achieved more or less highly than expected." Students need to be encouraged to judge their own efforts, since they report that teachers do not always do this well. This is more likely to be useful if they are given a framework of questions within which they might judge those efforts, since we can not assume they have the skills to do this without help.

What do students think?

Students were asked to think about their learning and motivation using broad questions. Their responses coincided with the theoretical ideas from research in the field of motivation, showing that these ideas did have meaning for students.

Their responses showed that students did not differ much in their perceptions of their own motivation according to whether they achieved more or less highly than expected. This perhaps indicates that one of the problems facing teachers is that under-

"Many underacbievers are described as lacking in basic skills."

achieving students do not necessarily see themselves as having poor motivation for their work in school. It also suggests that over-achievers may be judging themselves quite harshly.

What students can do

Since under-achievers' perceptions seemed different from over-achievers' on five variables in the checklist, it seems sensible to target these variables with potential under-achievers. In general, overachievers:

- ★ saw that learning was for their benefit and satisfaction;
- ★ treated other students with sensitivity and respect;
- ★ listened to the ideas of other students and considered how others might influence their ideas;
- ★ worked with teachers in a polite way;
- ★ attended all their lessons regularly.

This, of course, raises the question of what teachers can most usefully do to change students' perceptions of each of these variables and their subsequent actions.

What teachers can do

The following sections list comments made by students on what they found motivating in the way they were taught. Teachers might find it useful to think about these comments for the benefit of their students.

The teacher valued their work

Students could see the point of each of their lessons; teachers showed their own enthusiasm and excitement about the work; work was pitched at the right level – not too easy and not too difficult; and teachers displayed students' work in classrooms.

The teacher valued students as learners

Teachers valued them as people and responded well to their ideas. They tried to keep them actively involved in lessons and praised students when they deserved it.

The teacher actively helped students with their work

There were established routines at the start and end of lessons and at points of change within lessons. Teachers seemed to be able to judge how much effort students had made and valued students who made an effort with their work. Teachers tried hard to help students sort out any difficulties they had with their work and tried to help students feel OK about mistakes they made. They wrote comments on students' work which helped their learning and tried to keep students actively involved in lessons.

The teacher respected their personal intellectual space Teachers encouraged them to use their own methods to work things out or puzzle things out for themselves. They did not tolerate students who misbehaved.

Non-conforming students

Teachers seem more likely to accept some nonconformity – not always trying hard at things they don't like – from girls who do better than expected and from some boys who do better than expected. Also the perception that a student is not trying is often strongly linked to a poor teacher-student relationship. Therefore, teachers need to:

- ★ ensure that all students get pay-back from engaging in activities in their subject;
- ★ allow all students to have some lapses in effort;
- ★ consider ways of promoting the value and importance of their subject to all students.

Communication between teachers and students

All students say they talk much more about bad work and problematic issues than good work and positive issues. Girls who do worse than expected particularly think they ask for help far more than teachers say they do. Students who do ask for help seem to be negatively labelled by some teachers.

Some under-achievers may not have the communication skills to ask or respond in ways seen as positive by the teacher. Therefore, it seems important that teachers:

★ encourage all talk, but particularly talk about positive aspects of learning, including what was good about good work;

★ persuade students that communication is helpful to their learning;

★ advise students about productive ways both of asking for help and responding to help that is given;

★ try to disentangle the underlying message in a communication from students from the ways in which it has been communicated.

Diagnosis of problems

The issue of labelling students as having problems without identifying possible solutions is a concern since it does not allow for further analysis of the underlying problems.

These problems are various in origin and lie in the experiences of the students, both inside and outside school. Rational analysis of these problems will occur only if teachers and parents can look behind such labels.

Basic skills

Many under-achievers are described as lacking in basic skills. Clearly, until their needs are met, it is likely that particular students will not benefit from teaching. All teachers therefore need to ask whether basic skill needs are adequately met within current structures and, if not, what alternatives are available.

"Students need to be encouraged to judge their own efforts, since they report that teachers do not always do this well."