How can Teachers Motivate Less Motivated Boys?

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Aim

To investigate factors that affect the motivation of less able boys in Science and, from this, to see how teachers may improve that motivation.

Dimensions of this Case Study

Research was conducted with 22 boys in Year 10 who had been placed in low ability single sex groups for Year 9 and 10 science. The boys, their teachers and tutors were interviewed and pupil data on ability effort and background were collected and analysed.

Summary of Findings for this Case Study

- Setting by ability can, where boys are in the majority, reinforce a peer group culture which emphasises social opportunities over learning.
- Research literature suggests that teachers ought to adopt a persona that suits the boys' ways of working. Some teachers interpret this as acting as 'Top Boy'. Whilst this may bring short term benefits, it is not a long term solution or one available to all teachers.
- Teachers need to be aware of, and adapt their teaching styles specifically to, the boys' literacy levels and learning needs.
- Boys defined learning as performing a skill, not practising or refining a skill. This leads to demotivation.
- To improve the motivation of boys, teachers should consider:
  - Taking time to listen to the boys in order to build relationships which show that they are valued and respected as both learners and individuals;
  - Recognising that some boys are 'under pressure' and require pastoral support;
  - Helping develop and clarify the boys' career ambitions;
  - Establishing routines to help the boys work consistently over time;
  - Developing tasks that require thinking rather than copying;
  - Using examples to which boys can relate;
  - Using humour.

Introduction

Within this year group, there were more boys than girls (2:1). Setting by ability led to groups of less able boys. The group's ability was assessed by reference to their national test results, abstract reasoning scores and teacher assessments. The boys were two national test levels below the average achievement level for the year. The boys were working class, with one exception, and their ethnicity reflected that of the school (less than 15% of the pupils have a heritage other than white British).

Setting by ability can, where boys are in the majority, reinforce a peer group culture which emphasises social opportunities over learning.
We found that this accidental single sex environment in a mixed school decreased the boys' motivation. The boys generally enjoyed the social activity of school; their general behaviour was 'pro-social' rather than 'pro-work'. The boys viewed the classroom as a part of their social life, not as an academic environment. Their behaviour was not anti-work or anti-teacher; rather they were pro-social, wanting to engage with their peers in social discourse. This social classroom was seen both as a place of value and a place where they could feel vulnerable.

Schools that create low ability all boys groups, need to consider the possibility of active intervention in the school to challenge social values of the peer group.

Research literature suggests that teachers adopt a persona that suits the boys' ways of working. A 'top boy' teacher role is not satisfactory in the long term.
Teachers had tried a number of methods to overcome the pro-social nature of the single sex boys groups. Literature on failing boys suggests that teachers should work with boys on learning preferences. The method which appeared to be most immediately successful was for male teachers to take on the 'top boy' role by becoming the leader of the boys' social group. But not all teachers are able to take on this role. Furthermore this does not enable the boys to develop a 'pro-work' ethos in the long term. If the teacher is not successful in establishing themself as top boy, or if what the teacher is saying is not as interesting as some alternative, then the boys' interest and attention will be lost again. To avoid this occurring, schools and teachers may need to intervene to enable boys to develop a peer culture which does value learning, and definitions of masculinity that are supportive of work geared to learning.

Teachers need to be aware of, and adapt their teaching styles to, the boys' literacy levels and learning needs.
Nearly half the members of the research group scored below level 3 in their English national tests at the end of key stage 3. This was a clear indicator of the literacy problems these boys faced on a conceptually demanding key stage 4 course. However the results of GCSE module tests show that these low literacy levels need not prevent the boys from successfully accessing the key stage 4 science curriculum.

The boys themselves were aware of their literacy problems and spoke of their need for, and appreciation of, teachers who would adapt the language of the curriculum, using simple words that they could understand. The boys wanted teachers who clearly appreciated their learning difficulties and who adapted their teaching to address these problems. Strategies they found helpful were teachers explaining the instructions orally as well as providing a written copy and teachers who explained the tasks to them individually.

In this study the teachers' expectations were generally in line with the ability level of the boys. However where teacher expectation was higher, despite low entry and national test scores, the students were performing better at GCSE, at the C/D borderline. Literature suggested that this high expectation of students comes from the teachers' assumptions about the overall ability profile of the school, rather than the individuals and the class, so the ability profile of the school may matter. Students with low levels of literacy benefit from high expectations. To take these facts into account teachers may need to ensure that the literacy level of the work is simpler, without diluting the scientific content.

Boys defined learning as performing a skill, not practising or refining a skill. This leads to demotivation.
The boys said that they found coursework and tests the most motivating activities. This is because they had a clear purpose. They are also tasks where boys could show how good they were at science - they

could perform their skills. An analogy here is with football. The boys want to play football, but not to practise the skills. They see practising a skill as evidence of weakness in their ability to play the game. The same is true in science, practising learning means getting things wrong.

Literature suggests that concentration on a 'performance approach' should be treated with caution as it may have a long-term demotivating effect. It suggests that performance views of learning are matched to ideas of fixed intelligence. Trying and effort are seen as weaknesses in skills. Motivating the boys to do activities that show skill may keep the boys on task, but may not help them when they come to tackle tasks that they find difficult. Long-term motivation may only be improved by tackling the performance view not just using it. One strategy for working against a performance culture which we are now exploring is to educate students about what it means to learn, about ideas of intelligence and ability.

To improve the motivation of boys, teachers can:

- Take time to listen to the boys in order to build relationships to show that they are valued and respected as both learners and individuals.

The boys acknowledged that they were not the easiest pupils to teach but appreciated teachers who would take them on and enjoy their company while promoting their learning. Boys needed to be valued by both their teachers and the school. The boys wanted teachers who would show that they cared about them and respected them both as learners and individuals. They were motivated by teachers who wanted to teach them and who had confidence in their ability to do so.

- Recognise that some boys are 'under pressure'.

To be effective in improving motivation teachers need to be aware of a range of demotivating factors. Issues that appeared to be affecting the boys negatively were very broad: sibling rivalry, poor school/parent relations, parental illness, acrimonious divorce etc. However several parents had also engaged with the school in trying to work with their sons. These parents linked with individual teachers whose increased understanding of the boys' problems meant that they were able to offer more help to their students.

We classed a few of the boys as 'under pressure'. Their problems weighed heavily on them and they seemed to have little emotional strength to cope. They had disengaged badly within school. They seemed to be in need of personal help. All these boys had falling effort grades across Year 10. The problems that these boys faced could not be dealt with in the science classroom alone. There were issues that needed to be addressed by the pastoral systems of the school and beyond. Effectively motivating these boys may require external agency input.

School can be a very positive experience for these boys. The boys explained that they enjoyed certain lessons and leisure activities because they took their minds off their problems. One pupil said: 'When I'm wound up, if I have problems outside school having fun in school helps you to forget it.' What happens in the classroom can make a difference to the lives of these students.

- Help develop and clarify the boys' career ambitions.

It emerged that most of the boys had no clear career ambition. They believed education should get them a job, but only in general terms. Those students that did have a definite career ambition were more motivated generally. Although not all the well-motivated boys had career ambitions, helping the boys develop complex ideas of their future selves may help them to see school and learning as worthwhile.

- Establish routines to help the boys work consistently over time.

Teachers stressed the importance of organisation. There was a need to establish clear directions and consistent physical rituals for collecting in coursework, using equipment, laying out the writing etc. Again their evidence supported the literature in suggesting that this had a major impact in raising standards.

- Develop tasks that require thinking rather than copying.

There was a mismatch between the teachers' and the boys' perceptions of motivation. The teachers picked

copying notes as a highly motivating factor (perhaps because they knew this was a task which the boys could 'perform' effectively); the boys as the least motivating activity. They felt it reinforced their feeling that they were passive receivers of education. The teachers regarded being motivated as being on task, and copying as an example of this. The boys resented teachers that controlled them and saw copying as a controlling task. They saw being motivated as being involved in their work.

The boys' attitude, which emphasised social issues over learning, made working with them difficult. The teachers' reaction to this was to set up tasks such as copying, which controlled the boys' talking, and which they could easily enforce. Such controlling or calming tasks might have been necessary to set up a lesson, but did not mean that any learning was occurring. Teachers need to develop more creative tasks that engage the students quickly, but which also engage them in the science, to calm the boys at the start and direct them to work.

- Use of relevant examples.

The use of examples from the boys' lives, when handled well (e.g. using their enthusiasm for football) could make the boys more engaged in the task. However the teachers' views bore out the literature which suggested that the examples can take over what is being learnt. The boys were also cynical about teachers pretending expertise that they clearly didn't have. Well-chosen examples created a bridge from an abstract concept to a practical application that made the work relevant and useful.

- Use of humour.

The boys and teachers liked to share a good joke. Humour used well provided a break in the lesson and helped establish working relationships between students and teachers. However the students reacted against teachers that joked at their expense.

Conclusion

The strategies suggested by our research are not necessarily exclusively applicable to boys, many of them are examples of good teaching that are of equal worth with girls.

Methods

An in depth analysis of the available literature helped us to devise a questionnaire to explore pupils' perceptions of science and science learning. This information was then supplemented with data from national tests, module test scores and teacher effort grades. The resulting data generated a series of emergent factors which were investigated further in semi-structured interviews with pupils and then teachers.

Further reading

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