



PROTOCOL

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A systematic review of what pupils, aged 11–16, believe impacts on their motivation to learn in the classroom

Protocol written by the Motivation Review Group

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Wider consultation groups

Scottish Parent Teacher Council
Scottish Support for Learning Association
User groups: Teachers undertaking the Diploma in Support for Learning
Initial teachers undertaking a range of courses

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1. BACKGROUND

1.1 Theory and policy

The term 'motivation' is derived from the Latin word meaning 'to move'. Thus it might be argued that motivation involves anything that moves an individual to action and, in the case of schools, what moves an individual to learn. Ames and Ames (1989) described motivation as the impetus to create and sustain both intentions and goal-seeking acts. Despite these insights, the term 'motivation' is incredibly difficult to define. Maslow (1970) and Atkinson *et al.* (1990) consider motivation to relate to a number of basic human needs; Oxford and Shearin (1994), in an analysis of 12 motivational theories or models, identified six factors that relate to motivation (attitudes, beliefs about self, goals, involvement, environmental support and personal attributes), while the recent *Systematic review of the impact of summative assessment and tests on students' motivation for learning* (Harlen and Deakin Crick, 2002) acknowledged that 'motivation is a complex concept' that 'embraces... self-efficacy, self-regulation, interest, locus of control, self-esteem, goal orientation and learning disposition' (op. cit., p 1). As such, it would seem that motivation cannot be conceived as a single entity.

Various writers suggest that a positive motivation towards learning is a disposition that all learners have. Maslow (1970) suggested a hierarchy of needs that he thought had to be fulfilled and that a need to learn is one such human fundamental; Atkinson *et al.* (1990) suggest that motivation relates to three categories of needs that motivate us to action (survival, social and curiosity); McCombs (1993) cites previous studies and argues that learners of all ages are naturally quite adept at being self-motivated and at directing and managing their own learning on tasks they perceive as interesting, fun, personally meaningful or relevant in some way (McCombs, 1991, 1993, 1994). Poplin (1988) suggests that a fundamental theme running through a holist/constructivist approach to learning is that integrity is a primary characteristic of the human mind. An argument exists, therefore, that humans are inherently motivated to learn, and psychoanalytic psychologists (Freud, Adler, Jung and Erikson among others) have explored these intrinsic motives within people. However, behaviourist psychologists (such as Pavlov, Skinner and Thorndike) were more interested in extrinsic factors that influence motivation. Further dichotomies of this internal and external kind exist. Cannon (1929), for example, referred to homeostatic and non-homeostatic mechanisms. Some actions, such as changes in body temperature, occur automatically (homeostatic) while others require the person to engage in some kind of agentive behaviour (Bruner, 1996). Hunger, for example, requires us to act in a conscious manner (non-homeostatic). However, whether it is wise to delineate the debate and discuss the concepts of intrinsic and extrinsic motivation separately is debatable. While it is possible to experience intrinsic motivation when participating in learning (Deci, 1975), it may be extrinsic factors in combination with intrinsic factors that push us on to our ultimate goal. Thus intrinsic may be the result of numerous extrinsic requirements. Actions occur when the internal and the external factors work together to engender a

particular behaviour. It is likely, therefore, that motivation is the result of an interplay between the two.

The work of Carol Dweck may be of interest with respect to this internal/external relationship in motivation. According to Dweck (1995), learners can hold one of two, very different, implicit beliefs related to learning: 'entity' and 'incremental'. She suggests that these beliefs impact very differently on how individuals approach learning and teaching. 'Entity theorists' believe that intelligence is fixed and, although they believe that they can learn new information, they also believe that this will not alter their overall intelligence level. Thus, learners holding entity beliefs may explain their failure in terms of lack of ability rather than lack of effort. Choh Sse Yee and Ling (2001) suggest that entity theorists are 'more likely to react helplessly in the face of failure and show negative feelings'. 'Incremental theorists', on the other hand, 'focus more on behavioural factors as the causes of failure and they view intelligence as something that can be cultivated through effort. Setbacks motivate them to continue to work toward mastery of the tasks' (Choh Sse Yee and Ling, 2001). Dweck and Leggett (1988) suggest that, when learners are faced with failure, they respond in particular ways depending on the theory of intellect that they hold. Some learners are performance orientated and perceive failure as a direct result of their lack of ability. Other pupils are mastery orientated and perceive failure as a direct result of their lack of effort. Learner motivation, therefore, is affected differently by the experience of failure, depending on the theory of intellect that is held, because this shapes their attitudes to achievement and explanations of progress. Learners who are mastery orientated may be highly motivated by failure because they are more likely to believe that, if they simply try harder, the task can be achieved. The importance of this work lies in the implication that, despite inherent dispositions towards particular aspects and ways of learning, learners are not born with particular beliefs about intelligence or learning. These beliefs are formed through our experiences of, and interaction with, the environment in which we find ourselves. Given that beliefs are created, then teachers may be in a position to influence positively the beliefs that learners hold: whilst intrinsic motivation cannot be coerced, it can be facilitated (McLean, 2003).

Following the Elton Report (Department of Education and Science (DES), 1989), a sense of balance between sanctions and rewards was called for. Schools instigated a plethora of reward systems with star charts and happy faces in abundance. In most cases, concrete rewards focused on external prizes such as pencils or stickers. The teacher set goals or targets for such rewards with the pupil being little more than a passive participant in the process. In all this, the underlying philosophy was one that suggested curative reprimand and external reward could motivate pupils to engage with learning. The adoption of this inherently behaviourist approach by schools had predictable consequences. In contrast to the agentive learning advocated by Bruner (1996), McCombs (1993), Poplin (1988) and others, learners were placed in a passive role, controlled by external factors. The result of this passivity, it could be argued, is loss of interest in the curriculum and opportunities for being creatively involved in the learning process are curtailed (Kohn, 1993) Such approaches imply that behaviour can be directed by one singular extrinsic source when the literature suggests that numerous factors contribute to a particular behaviour being embraced.

Despite this history of emphasis on behaviourist approaches, there has been a recent shift in the rhetoric being used at national level; words such as self-regulation, self-discipline, self-esteem and self-efficacy have become embedded in the discourse. In England and Wales, the 1997 Education Act, and in Scotland the Discipline task groups (Scottish Executive Education Department (SEED), 2001) both encouraged *self-discipline* in schools. However, an increased awareness of the importance of citizenship and the active role that young people should play in society (Crick, 1998; Learning and Teaching Scotland, 2002) has led to a perceptible lack of harmonisation between the prominence given to young people by schools and that given by society. This move towards the concept of a more autonomous group of young people who are self-motivated has left the traditional structures of compliance and control in disarray (McLean, 2003).

The UK government is committed to 'high performance, high equity' (Department for Education and Skills (DfES), 2003) in education. This commitment is accentuated by a desire that teaching and learning should create 'active, skilled and independent learners' (DfES, 2003). However tensions are evident in policy. *The Key Stage 3 National Strategy, Behaviour and attendance: in-depth audit for secondary and middle schools* recommends that, prior to the audit, references are collated relating to 'rewards and sanctions in the school's most recent [Office for Standards in Education] Ofsted report'. The *prompts for interviews* appear to have an inbuilt assumption that rewards and sanctions are an effective way to ensure behaviour and attendance are improved, and accordingly ask schools to consider how the system might be improved. They also appear to assume that better behaviour and attendance will lead to better motivation within the pupil. However, we would challenge this assumption and argue that a pupil's physical presence in the classroom does not necessarily equate with greater motivation to learn. While *Better Behaviour, Better Learning* (SEED, 2001) acknowledges the link between the intrinsic value of effective learning and teaching and behaviour, it also indicates a clear commitment to positive discipline through rewards and sanctions, with little evidence to support the relationship.

The Alliance for Excellent Education, based in the United States of America, cites findings from the America Youth Policy Forum (AYPF) workshop where it was stated 'today's students feel as though high school is irrelevant, that classes are boring, and that they are just passing time until something important ...comes to pass' (AYPF, 2000, p 4). Scales (1996) discovered that 40% of high school pupils and nearly 50% of middle school pupils reported feeling disengaged from the education process. In England, Hampshire County Youth Services have set, as one of the targets in their strategic development plan 2000-2003, the requirement that each district should establish projects which will benefit young people who have become disengaged from education and/or their local community (Hampshire County Council, 2000). Thus some would argue that demotivation could lead to disengagement and disaffection from school and consequently the formal learning process.

There can be some confusion between the terms 'disaffection' and 'disengagement' since they are so often used synonymously. The following definitions, which will be used by this Review Group, are provided as a means of differentiating between the terms for the purposes of this review. It is acknowledged that other interpretations could be made.

A *disaffected pupil* is one who no longer sees any purpose in school or learning. Such pupils may feel that they have learned all that they need to learn and/or they may feel that the material that the school offers to them for learning is irrelevant to their needs. As such, they simply 'play out time' until they are able to leave school. Some of these pupils may display behavioural difficulties in classes that they see as particularly irrelevant. Others, however, may not show behavioural difficulties. Indeed, these pupils may even appear to be engaged with the learning process but this is simply an alternative tactic in 'playing out time'. Such participation, however, is likely to be minimal; that is, enough to please the teacher and keep people 'off his/her back'. In this instance, the pupil is demotivated to learn but motivated to achieve minimum hassle.

A *disengaged pupil* is one who has lost connection with the learning process. These pupils may well see the point to learning, value their education and, indeed, be motivated to learn. However, such a pupil may have, for example, an emotional problem that is acting as a barrier to learning. In this case, were the emotional difficulty to be alleviated, the pupil is likely to re-engage with learning. The problem in this case is not one of motivation.

1.2 Why a systematic review is needed

There would appear to be a number of crucial issues that need to be addressed in relation to motivation and learning.

- There is difficulty in defining motivation given its multi-factorial nature. The Review Group seeks, through a series of systematic reviews, to further develop understandings of the concept of motivation.
- Hitherto, research into intrinsic and extrinsic motivation has resulted in differing conclusions in relation to the correlation between the two (Cameron *et al.*, 2001; Deci *et al.*, 1999). The Review Group is concerned not only with the relationship between these two 'types' of motivation, but also with how schools recognise and impact on them to support classroom learning. As such, the Review Group is interested in both intrinsic and extrinsic factors related to motivation. More specifically, the review is interested in the intrinsic and extrinsic factors that impact on pupils' motivation to learn in the classroom.
- Given the current concern (DfES, 2002a; SEED, 2001) that significant numbers of pupils are becoming disaffected and disengaged from classroom learning, this Review Group is concerned with what impacts on pupils' motivation to learn as they move through the school system. Why do some appear demotivated by the process, while others remain motivated? In this respect, the Review Group is also interested in what demotivates pupils because of the potential for disaffection with, and disengagement from, school education. Thus we need to understand better the relationship between classroom level actions and pupils' motivation.

Three major questions arise that will guide the Review Group's general work:

1. What factors impact on pupils' motivation to learn in the classroom?
2. Can teachers create conditions in the classroom that sustain, guide and enhance an inherent motivation to learn, and how might they do this?
3. Is it possible for teachers to rekindle motivation in those who have become disaffected and/or disengaged from the formal learning process?

A number of meta-analyses of research in the field have been conducted (for example, Cameron and Pierce, 1994; Deci *et al.*, 1999; Rawsthorne and Elliott, 2000; Rummel and Feinberg, 1988; Utman, 1997). These highlight the complex nature of the motivational process. While much evidence points to the adverse effects of extrinsic rewards (including praise) on intrinsic interest and creativity, for example, there is ongoing debate about whether or not extrinsic motivators are always necessarily a bad thing. When tasks are perceived as boring, for example, and incentive is low, there is evidence to suggest that extrinsic rewards may have the effect of increasing the probability of task completion. The majority of studies in the area have also made use of an experimental design. Much less research has been conducted in the natural setting of classrooms. The research moreover has traditionally examined the effect of contingent reward on subsequent involvement in a particular activity. There appears to be little research that explores the views of pupils regarding their own motivation and what works for them.

The development of the review question and the scope of the review were defined by the core review team in conjunction with the user groups.

2. AIMS OF THE REVIEW AND REVIEW QUESTIONS

A crucial factor to emerge from discussion with the user groups for the project was the role that teachers can play in stimulating motivation to learn in the classroom.

2.1 Aim

The aim of this first systematic review is to address – at least, in part – the first general question outlined above: What factors impact on pupils' motivation to learn in the classroom?

This first review will focus on pupils' views. We are interested in factors that:

- impact positively or negatively on pupils' motivation to learn in the classroom
- occur both within and outwith the classroom
- are intrinsic or extrinsic to the individual

2.2 Initial review question

What do pupils, aged 11–16, believe impacts on their motivation to learn in the classroom?

2.3 Conceptual framework of the review

There exist currently a number of definitions of motivation. These have varying emphases and have largely emerged from theoretical considerations. There is evidence that how motivated or demotivated individuals feel affects their levels of engagement with a task, enjoyment of activities, how and what they learn and ultimately their performance. Given that demotivation can lead to disaffection with, and even disengagement from, learning, what pupils themselves have to say about their motivation to learn or not is an important prerequisite for informing teaching practices in the classroom.

2.4 Mapping stage

The review will include a descriptive mapping of all 'pupil voice' studies focusing on motivation to learn. Following this initial mapping exercise, more detailed foci will be identified.

3. REVIEW METHODS

3.1 Methods for identifying and describing studies

3.1.1 Mapping stage

Population

The target population is pupils of secondary school age (in the UK: 11 to 16). This is the age group where most concerns lie with regard to demotivation (DfES, 2002a; DfES, 2002b), although it is recognised that this concern exists at all stages of compulsory schooling. Studies that might involve pupils of secondary school age reflecting on their earlier experiences of schooling will be included in the initial mapping stage.

Topic focus of studies to be reviewed

The focus for the review is pupils' beliefs and opinions about what impacts on their motivation to learn in the classroom. Thus, studies that do not report on pupils' voices and reflections will be excluded. Looking at pupils' views may well mean that factors without the classroom are involved. The Review Group is interested in identifying all such factors. By concentrating on pupils' views of what impacts on their own motivation, the Review Group hopes that the results of research will include both intrinsic and extrinsic factors.

Geography

There will be no geographical restriction placed on the search. In fact, the group is keen to include research from regions traditionally excluded from reviews, such as developing countries. The only restriction is that the study be available in English.

Date

As a result of international agreements – such as the United Nations (UN) Convention on the Rights of the Child (UN, 1989) and the Salamanca Statement (United Nations Educational, Scientific and Cultural Organization (UNESCO), 1994) – the debate on inclusion and children's rights came to the fore. The rights of young people – and in particular their right to be heard and have their views taken into account in decisions affecting their lives – became embedded in the discourse. The Crick Report (1998) and the citizenship agenda coupled with Education Acts (Schools Standards and Framework Act, 1998; Standards in Scotland's Schools, 2000 Act) have seen a sharp rise in relation to the direct participation of young people in their education. Concern about motivation underpins many of the mechanisms put in place as a result of this legislation (Education Action Zones, Schools Councils) and pupil voice is a core component of these. The period 1998 to the end of April 2004 has been selected for this review. This permits research to be obtained that has been undertaken since the drive for pupil participation and pupil voice along with concerns surrounding motivation began to receive greater recognition.

Study type

Only studies that are rooted in pupils' own perspectives will be included in the review. They will be required to be evidential, rather than philosophical. It is likely

that research will be qualitative rather than quantitative in nature. However, previous reviews (Harden *et al.*, 2004) have identified that such studies are not easily classified as quantitative or qualitative. While there is a good deal of agreement about what constitutes a good quality quantitative study, good quality qualitative research proves more difficult to identify. Work carried out by a previous Review Group (Harden *et al.*, 2004) will prove invaluable here. The tool developed by this Review Group investigating barriers to, and facilitators of, mental health, physical activity and healthy eating among young people to assess the quality of qualitative research will be used and further developed in this current review.

Summary of exclusion criteria for mapping stage

Exclusion criteria

1. Does not involve pupils age 11 to 16
2. Centres on pupils not educated in secondary schools (or their UK equivalent)*
3. Does not report on primary research in which pupils were asked about their motivation to learn
4. Is not written in English
5. Does not contain details of research methods and study
6. Study data collected before 1998

*Excludes - UK, primary education (5-11), junior schools (7-11), middle schools (8-12), sixth form education (16-18), sixteen to nineteen (16-19), further education (16+), post-compulsory education (16+). The following 'years' in England will be excluded: 1-6 and 12-13. In Scotland, 5th and 6th years will be excluded.

In the USA, grades 1-5 and grades 11-12. Elementary schools will be excluded as will post-secondary education.

3.1.2 Methods for identification of studies

Reports will be identified from the following sources:

- bibliographic databases
- search of journal publishers' web pages or handsearching of key journals
- citation searches of key authors/papers
- reference lists of key authors/papers
- references on key websites
- personal contacts
- direct requests to key informants

Details of the proposed sources are given in Appendix 1. Proposed search terms are given in Appendix 2. Searches of these sources will be limited so as to identify studies conducted in the time period 1998 to the end April 2004. The Review Group will use EndNote to keep track of and code studies found during the review. Titles and abstracts will be imported and entered manually. We will apply the inclusion and exclusion criteria successively to (i) titles and abstracts, and (ii) full reports. We will obtain full reports for those studies that appear to meet the criteria or where we have insufficient information to be sure. These reports will be entered into a second EndNote file. We will re-apply the inclusion and exclusion criteria to the full reports and exclude those that do not meet these initial criteria.

3.1.3 Methods for characterising included studies

The studies remaining after application of the criteria will be keyworded, using the EPPI-Centre Core Keywording Strategy (2003). Additional keywords that are specific to the context of the review will be added to those of the EPPI-Centre. All the keyworded studies will eventually be added to the EPPI-Centre's *Research Evidence in Education Library* (REEL), for others to access via the website.

3.1.4 Methods for quality assurance

All the members of the Review Group will apply the inclusion criteria to a sample of the papers in a moderation exercise. Thereafter, application of the inclusion criteria and the keywording will be conducted in pairs, working first independently and then comparing their decisions and coming to a consensus. Members of the EPPI-Centre will also help in applying criteria and keywording studies for a sample of studies as second reviewers as part of the quality assurance process.

3.2 In-depth review

3.2.1 Provisional criteria for in-depth review

Depending on the results of the mapping stage, a second set of exclusion criteria may be developed with differing foci, for example:

1. motivational factors that are within the control of the classroom teacher (as opposed to parents, peers, etc.)
2. pupils with demonstrated signs of disengagement/ disaffection (e.g. truants/ drop-outs)
3. high quality studies of authentic pupil voice
4. gender differences in motivational factors

3.2.2 Methods of extracting data and appraising quality and relevance of evidence from relevant studies

Studies, identified as meeting the inclusion criteria for the in-depth review, will be analysed in depth using the EPPI-Centre's detailed data-extraction software, EPPI Reviewer. Data-extraction will be completed by pairs of Review Group members working first independently and then comparing their decisions and coming to a consensus

The EPPI-Centre weight of evidence framework will be used to make explicit the process of apportioning different weights to the findings and conclusions of different studies. Such weights of evidence are based on the soundness of studies (internal methodological coherence, weight of evidence A). Because of the review focus on pupil voice an explicit set of 12 criteria, adopted from the healthy eating review (Thomas *et al.*, 2003), will be used to weight studies under this heading. Thus each study will be assessed according to whether:

1. the aims and objectives were clearly reported;
2. there was adequate description of the context in which the research was carried out (including a rationale for why the study was undertaken)

3. there was an adequate description of the sample used and the methods for how the sample was identified and recruited;
4. there was an adequate description of the methods used to collect data; and
5. there was adequate description of the methods used to analyse data.

Each study will also be assessed according to whether there has been 'some attempt', 'a good attempt' or 'no attempt' to establish the following:

6. the reliability of data-collection tools;
7. the validity of data-collection tools;
8. the reliability of the data analysis methods; and
9. the validity of the data analysis methods.

Three final criteria will be applied. These are related to the assessment of the *appropriateness* of the study methods. They are designed to ensure that findings about what impacts on pupils' motivation to learn are rooted in pupils' own perspectives. Studies will be judged according to whether they:

10. use appropriate data-collection methods for helping pupils to express their views;
11. use appropriate methods for ensuring the data analysis is grounded in the views of pupils; and
12. actively involve pupils in the design and conduct of the study.

It is acknowledged that issues exist over what is meant by some of the terms (such as 'adequate', 'clear' and 'appropriate').

Finally, and again from the experience of previous Review Groups, identifying studies that are genuinely embedded in the views of pupils may prove problematic. Two further issues have been helpfully highlighted (Harden *et al.*, 2004) that could be developed to aid this decision making process.

1. Was pilot work carried out to ensure that the data-collection tools were meaningful to young people?
2. Were ethical considerations accounted for (such as confidentiality, consent, etc.)?

3.2.5 Methods for synthesizing findings of included studies

The idea of using techniques developed by previous Review Groups will be considered. Others found, for example, that reconstructing studies into a standard format using evidence tables and structured summaries were useful in helping the Review Group to immerse themselves in the data and render the views studies comparable (Harden *et al.*, 2004, p 9).

Harden *et al.* describe a three-stage process in the synthesis of data that follows on from the construction of evidence tables and structured summaries:

1. Classifying studies
2. Comparing and contrasting findings
3. Thematic analysis

Possible frameworks for thematic analysis include classification of motivation: for example, intrinsic/extrinsic; focus on motivation within remit of classroom teacher; and focus on disaffected/disengaged young people.

3.2.6 Methods for quality assurance

Data-extraction and assessment of the weight of evidence brought by the study to address the review question will be conducted by pairs of Review Group members, working first independently and then comparing their decisions and coming to a consensus. Members of the EPPI-Centre will also help in applying criteria and keywording studies for a sample of studies as second reviewers as part of the quality assurance process.

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APPENDIX 1: Sources of studies

Bibliographic databases

AEI	Australian Education Index
BEI	British Education Index
CERUK	Current Educational Research in the UK
Education-online	
ESRC (Regard)	Economic and Social Research Council
ERIC	Educational Resources Information Centre
PsycINFO	
REEL	Research Evidence in Education Library

Citation indexes

ASSIA	Applied Social Sciences Index and Abstracts
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Key websites

AERA	American Educational Research Association
BERA	British Educational Research Association
EERA	European Educational Research Association
NFER	National Foundation for Educational Research
SCRE	Scottish Council for Research in Education
SERA	Scottish Educational Research Association
SEED	Scottish Executive Education Department
HMIe	Her Majesty's Inspectorate of Education
Ofsted	Office for Standards in Education
DfES	Department for Education and Skills
LTS	Learning and Teaching Scotland

APPENDIX 2: Search terms

Search terms for the initial search will include combinations and permutations of the key terms for each aspect of the question with a date limit of post-1998 applied.

1. Participants (age range 11 to 16)
2. Beliefs
3. Motivation for learning in the classroom

The following terms have been identified from the ERIC Thesaurus of Descriptors. Alternative and equivalent descriptors will be used to access other databases.

Participants terms	Beliefs	Motivation for learning in the classroom
College bound students Non-college bound students Secondary school students High school students Junior high school students Vocational high school students High school freshmen High school seniors Grades 9, 10 Years 7, 8, 9, 10, 11 Secondary school pupils Secondary modern pupils High school pupils Comprehensive school pupils Grammar school pupils Vocational high school pupils	Attitudes Beliefs Opinions Interests Voices Expectations Student alienation Student adjustment Student evaluation Student experience Student problems Student reaction Student school relationship	Achievement Aspiration Failure Fear of success Feedback Goal orientation Morale Motivation Stimuli Incentives Positive reinforcement Praise Recognition Sanctions Rewards Self-reward Self-concept Self-efficacy Self-esteem Self-fulfilling prophesies Learning Class