

**Ability alone is not enough : How we think about ourselves matters too.**

**An introduction to the Myself-As-a-Learner Scale (MALS).**

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### **The myth of the all-powerful IQ**

One of the most pervasive myths about success in school and in life has been that it mainly depends upon the level of a person's IQ. For many years this was an assumption perpetuated by educational psychologists, whose first reaction was to reach for an intelligence test in seeking to explain educational success or failure. Various government and educational establishment initiatives underscored this approach. Efforts to identify the so-called 'gifted and talented' have been largely based upon high measured IQ, whilst at the other end of the scale, a diagnosis of 'moderate learning abilities' has continued to be largely dependent upon low intelligence test scores. Meanwhile, most secondary schools across the country continue to draw upon the results of Cognitive Abilities Tests (CAT) to predict their students' future success or failure in public examinations.

This situation would give little cause for concern if it did not have profound implications for children's educational opportunities and even later life choices. And yet, countless research studies have shown that, whilst undoubtedly a significant factor in contributing to academic success, measured IQ contributes no more than 40% to the final outcome. Where sociologists tend to point to socio-economic factors as playing a significant role, most psychologists now agree that, when it comes to individual learning, motivation is the key. Nevertheless, what remains unrecognised in many schools is that the secret of successful learning lies at least as much in children's motivation as in their innate ability, however that is measured. Every experienced teacher can immediately provide a host of examples of highly talented youngsters who failed to achieve their full potential because they lacked the interest, the desire or simply the confidence to do well when faced with learning opportunities. At the same time, they will be able to identify others who appeared to have little more than average ability but who went on to do well in examinations or later life because they believed in themselves and were prepared to work hard to achieve their goals.

### **The important contribution of self perceptions**

As the American psychologist Carol Dweck has shown, a student's conception of whether their ability to perform a task is predetermined and not open to change, or flexible and incremental, can have a profound influence on how they cope when the going gets tough. Dweck terms this 'mindset'. Those who hold the view that such attributes as intelligence and personality are fixed from birth and virtually unchangeable are most likely to develop a negative mindset when faced with difficult challenges; even to develop what Martin Seligman has described as feelings of 'learned helplessness'. Those with a 'growth' mindset, on the other hand, who believe that such basic qualities can be developed through their own efforts, are more likely to be stimulated by new challenges and to respond to failure with what Seligman terms 'learned optimism' (see Dweck, 2008 for a detailed presentation of her position). As psychological research has increased our understanding of the motivational process, it has become clear that our self confidence to succeed and the explanations that we give ourselves for our success and failures play a vital part in the learning process. What this suggests is that if we want to understand better why children do well at school, or sometimes fail to live up to our expectations, it would be helpful to gain some insight into their views of themselves as learners. What we need to tap into, in effect, is their learning self-concept. (Dweck has explored this theme also in her earlier book on self theories).

Assessing the self-concept is fraught with difficulties. In the first place, many psychologists fail to agree on what is meant by the term, let alone whether it can be measured. However, there is now general consensus that our thoughts and feelings about ourselves can be assumed to fall into a number of categories – our learning ability, our sporting prowess, our ability to relate to others, our physical attractiveness, and so on. These perceptions combine (and sometimes cancel each other out) to help us construct what is usually known as our self-image. How we feel about those self perceptions is often referred to as our self-esteem. The interaction between our self-image and our self-esteem is usually considered to lead to the construction of our self-concept. Some researchers like Herbert Marsh and Susan Harter have developed scales to measure children's (and adults') general self-concepts, including both self-image and self-esteem, whilst others, such as Denis Lawrence, have focused on the specific area of self-esteem.

### **The problem of measurement**

One of the main problems about the whole self-concept area is its very complexity. Thus, the widely used measures, such as the American based scales of Marsh and Harter, usually contain a large number of items in order to cover as many aspects of self-concept as possible, making them time consuming to administer, score and analyse. Their efforts to meet standard psychometric criteria of reliability and validity also leave little room for flexible interpretation of any individual's responses. Comparing total scores on such scales may be useful when applied to large groups, but may tell you little that is meaningful about ways in which individual respondents see themselves as learners. Also, in seeking to cover a wide range of different self perceptions, only a few items may relate directly to one specific area.

### **An alternative approach**

Dissatisfaction with those aspects of available measurement scales led to the construction of the MALS (Myself-As-a-Learner Scale) as a means of focusing directly on school students' perceptions of their learning abilities (Burden, 1998). A number of considerations were taken into account. The new scale had to be simple to administer and score for busy teachers, whilst containing sufficient items to ensure that different aspects of the learning self-concept were taken into account. For this reason, a twenty item scale providing five optional responses, leading to a maximum possible score of 100 and a minimum score of 20, was constructed. The scale needed to be comprehensible to pupils and students across a fairly wide age range, and standardised so that comparisons could be made between those with average, high and low self-concepts.

The original standardisation in one large secondary school in the South West of England provided a benchmark of scores between 60 and 80 as representing the average expected score for students between the ages of 11 and 16. Subsequent investigations across the UK, involving thousands of pupils attending a large number of primary and secondary schools has largely confirmed these findings. We can now state with some confidence that the

MALS is applicable to students between the ages of 9 and 16, provided that suitable precautions are taken with younger and less able children to ensure that they fully understand each item and how to respond appropriately. (Variations on the original scale, more suitable for younger children and post 16 students, are currently being constructed).

Initial interpretation of MALS scores is easy to apply. A class or year cohort can complete the scale under supervision in 20 to 30 minutes, depending on their age and ability. Scoring is a matter of simple addition and working out the group average. Some studies have used the scale in this way as a dependent variable in pre-post intervention designs. Basically, they are looking to find out whether the group's general self perceptions about their learning capabilities are influenced by some form of curriculum input or other intervention. Thus, many schools who have introduced a thinking skills approach to their students have used the MALS as one measure of the success of the programme. Although this has been reported as producing helpful insights, more work is still needed in identifying the precise reasons for both positive and negative outcomes. It may be here that Dweck's ideas have much to offer in extending our understanding of the change process.

### **Research applications**

Some interesting findings are beginning to emerge from investigations applying the MALS in different contexts. Firstly, although most studies show no significant differences between the average scores of girls and boys, there are some indications that such differences occasionally do occur (usually in favour of the girls), but we don't as yet know why. Similarly, although there does not appear to be any significant difference in average MALS scores across the age range, there are signs that differences can occur between school populations and even between classes in the same school. Further research into reasons for such findings is clearly needed.

One area in which the MALS is beginning to be used quite extensively is with children and older students with learning difficulties of both a general and specific nature. We have found for example that dyslexic students attending a highly regarded specialist school increased their MALS scores significantly as they moved up through the school, in contrast to their counterparts who had received good support in local secondary schools (Burden,

2005). This raises further interesting questions about the flexible nature of the learning self-concept and the way in which it may be influenced by excellent teaching and/or other contextual factors. In another study, twenty severely disabled students who had received weekly sessions of Feuerstein's Instrumental Enrichment programme over eighteen months all recorded high MALS scores at the end of the training period (Kaufman and Burden,2004).

One of the most useful applications of the MALS scores in schools has been the identification of 'outliers'- those students whose scores fall significantly below or above those of their classmates. When these scores are taken into account with other information about the students, it is often possible to identify those who have developed feelings of 'learned helplessness', sometimes without due cause in relation to their ability, or those who may have an over-inflated opinion of how well they are doing and may be in need of more reality testing.

#### **The learning self concept and attainment: the chicken or the egg?**

The nature of the association between a person's learning self-concept and learning outcomes is both complex and in a constant process of change. There are undoubtedly some young children who arrive at school with both the confidence and ability to do well. For the most part, however, children's views of themselves as learners will be shaped by their early learning experiences. By the time they reach secondary school, their learning self-concepts will be well on the way to becoming quite firmly established. At the same time, their learning self-concepts will undoubtedly affect the way in which they approach new subjects and new challenges. Thus, the relationship becomes more reciprocal, with a two-way interaction taking place, the nature of which, as Dweck tells us, will depend upon the kind of feedback provided by significant others such as teachers and parents. This implies that teachers need to be aware of and to concentrate on building what Guy Claxton refers to as their students' 'learning power', their approaches to learning tasks and their accurate self perceptions of how well they are doing. The issue is not one of whether to focus on improving learning or on fostering positive (but realistic) self perceptions, but to concentrate on both.

### **Further investigation of individual responses**

One of the great advantages of the MALS is that it was designed to represent a range of psychological theories about people's self perceptions. These include Bandura's notion of self-efficacy, Seligman's ideas about learned helplessness and learned optimism, and Wiener's theory of attribution. (A full description of these theories is provide in Burden, 2005). Thus we can tell from the pattern of a person's responses whether they are confident in their ability to succeed on learning tasks, whether they are optimistic or pessimistic about themselves as learners, and whether they see success or failure in learning as in their personal control or that of others. The fact that the learning self-concept appears to be open to change also reflects Carol Dweck's ideas about static or flexible conceptions of intelligence and how this can affect a person's achievements.

Although it would be simplistic to suggest that schools 'throw out the baby with the bathwater' by abandoning all use of cognitive tests, there are, arguably, a number of possible advantages to adding the MALS to a school's assessment armoury. While causality is not necessarily implied, knowledge of how an individual student perceives her or his learning capabilities in comparison with their same school/same age peers, can be considered potentially valuable information, especially when that person's current performance (and other factors such as home background and measured intelligence) is taken into account. Is that individual's low or high learning self concept matched by their actual learning performance or are they way off beam in either a negative or positive direction? If the latter, what might be some possible reasons for the disparity? Closer analysis of the pattern of MALS responses may well throw further light on this. There may be issues relating to feelings of self efficacy (*When I'm given new work to do I usually feel confident I can do it*), agency (*When I get stuck with my work, I can usually work out what to do next*), anxiety (*I get anxious when I have to do new work*), learned helplessness (*I need lots of help with my work*) or mindset (*I like having problems to solve*).

### **A final cautionary comment**

The growing number of teachers, schools and psychologists employing the MALS for predicting and monitoring change and other research purposes is an indication of its perceived value by many professional educators. However, the aim of this paper is not to

suggest that assessing the learning self concepts of individuals or groups of students will provide all that needs to be known about motivation to learn. Nevertheless, gathering information of the kind that is made accessible by the MALS shows every sign of adding one more piece to the complex jigsaw of the learning process.

## References

Burden, R.L. (1998) 'Assessing children's perceptions of themselves as learners and problem solvers. The construction of the Myself-As-a-Learner Scale'. *School Psychology International* 19 (4), 291-305.

Burden, R.L. (2005) *'Dyslexia and Self-Concept: Seeking a Dyslexic Identity'*. Chichester : Wiley.

Claxton, G. (2002) *'Building Learning Power'*. Bristol: TLO.

Dweck, C.S. (2000) *'Self Theories: Their Role in Motivation, Personality and Development'*. New York : Taylor and Francis.

Dweck,C.S. (2008) *'Mindset : The New Psychology of Success'*. New York: Ballantine Books.

Harter, S. (2001) *The Construction of Self: A Developmental Perspective'*. New York: Guilford Press.

Kaufman, R. & Burden, R.L. (2004) Peer tutoring between adults with severe and complex learning difficulties. The effects of mediation training with Feuerstein's Instrumental Enrichment Programme. *European Journal of the Psychology of Education* 19(1), 107-117.

Lawrence,D. (2006) *'Enhancing Self-Esteem in the Classroom'*. London: Sage.