

The power of expectation

Geoff N Masters

Australian Council for Educational Research

Nobody rises to low expectations. Calvin Lloyd

Success in most fields of endeavour depends on an ability to visualise success. It has long been known that elite athletes mentally rehearse each performance prior to its execution. Advances in neuroscience show why this may be so important: the neurological processes involved in visualising a performance are almost identical to those involved in the performance itself. Indeed, simply watching somebody else perform activates ‘mirror’ neurons in the observer paralleling neuronal activity in the performer.ⁱ The ability to visualise success and an accompanying belief that success is possible appear to be prerequisites for most forms of human achievement.

It also is clear that the development of self-efficacy is strongly influenced by the attitudes and beliefs of others. In schools, high achievement tends to be correlated with high parental and cultural expectations. Parents, in particular, are powerful inculcators of values and aspirations. Highly influential teachers also are commonly described as individuals who communicate a ‘belief’ in their students and who build self-confidence through high expectations. However, just as some students live up to high expectations, so others live down to the low expectations held for them. In education, low expectations are the equivalent of bone pointing; all too often they become self-fulfilling prophecies.

Not surprisingly, students develop differing beliefs about their own abilities to learn. Some students appear to view ability as ‘fixed’ and something over which they have little control. Students who believe they have low fixed abilities tend to believe that effort will make no difference. Those who believe they have high abilities often underestimate the importance of effort. On the other hand, students with an ‘incremental’ view of ability have a deep belief that success is related to effort. Rather than interpreting past failures as indicators of a lack of ability, these students are

more likely to explain failure in terms of a lack of effort.ⁱⁱ Interestingly, research has identified cultural differences in these beliefs. East Asian students tend to have more incremental views of their abilities than students of European origin.ⁱⁱⁱ

Given its importance to ongoing learning and achievement, few outcomes of schooling are more important than the development of a belief in one’s own capacity to learn. Because teachers and schools are in powerful positions to shape this belief – both positively and negatively – vigilance is required to ensure that educational practices do not unintentionally communicate and institutionalise low expectations of some learners.

One way in which educational practices can institutionalise low expectations is by *treating excellence as a limited resource*. There is general acceptance in society that not everybody can excel. Not everybody can be an Olympic athlete, just as not everybody can be tall. Indeed, if to ‘excel’ means to stand out from the crowd, then by definition, only some can excel. By analogy, it is argued, not everybody can (or even should) achieve excellence in the learning of mathematics or languages or science. Excellence in school achievement is a scarce resource available to only a few.

It seems likely that this deeply seated belief is driven in part by notions of intelligence. Beginning with Francis Galton in the mid-nineteenth century, it became common to identify and label varying levels of human intelligence, with each level representing an IQ range and a percentage of the population under the normal (bell) curve. A small percentage of ‘geniuses’ were at one extreme and small percentages of ‘imbeciles’ and ‘idiots’ were at the other. It was a small step from concluding that high intelligence was scarce to expecting excellence in school achievement also to be scarce.

One of the clearest illustrations of the rationing of excellence is the process known as ‘grading on the curve’. Under this process, the percentage of students achieving each available performance grade is pre-determined. For example, a decision might be made ahead of time to award the top ten

per cent of students an ‘A’, and the next 15 per cent of students a ‘B’, regardless of their absolute levels of achievement. This practice, common in some higher education institutions, is intended to counter the possibility of ‘grade inflation’ (that is, an increasing percentage of students being awarded high grades with no accompanying increase in absolute levels of achievement). The rationing of top grades to fixed percentages of students sends a clear message that excellence in educational achievement is expected of only a few. There are many other, more subtle, ways in which educational institutions communicate the same message.

However, educational achievement is not pre-determined in the way that attributes such as height are pre-determined. Achievement is strongly influenced by the quality of teaching, parental support and expectations, and student effort. Educational achievement also is not a competition with limited spoils for the winners. Just as levels of health, wealth and educational participation have increased in the general population over time, there is no reason why the percentage of students achieving excellence also should not increase. In reality, there appears to have been a decline in absolute levels of performance in subjects such as mathematics and science in Australia over the past two decades.^{iv}

The possibility of significantly larger numbers of students achieving excellence is made clear in international studies such as the IEA’s Trends in International Mathematics and Science Study (TIMSS) and the OECD’s Programme for International Student Assessment (PISA). In reading, mathematics and science, between 10 and 15 per cent of Australian students perform at ‘advanced’ international levels. Under the belief that excellence is a scarce resource, this percentage of advanced performers may seem about right. However, in East Asian countries between 35 and 50 per cent of students perform at the same ‘advanced’ levels.

A second way in which low expectations can be institutionalised in educational practice is by *placing ceilings on learning*. It is well known that students are more likely to learn successfully when engaged and motivated and when provided with learning opportunities appropriate to their current levels of achievement and learning needs. Students

are less likely to learn when given work that is much too easy or much too difficult for them, meaning that ‘differentiated’ teaching is important when students are at widely varying levels of achievement. However, expectations are lowered for students when they are assigned to classes or streams that place a ceiling on what they are able to learn or how far they are able to progress. In an effort to provide ‘relevant’ learning experiences appropriate to students’ abilities and interests, educational courses often protect participants from intellectual rigour and limit what they are able to learn.

For example, in mathematics – which often labours under the belief that it is inherently difficult, obscure and of limited relevance for many students – it is common to create easier streams for less able students. But these easier streams, with their focus on low-level, applied learning often have low expectations of the quality and quantity of mathematics learning and deny students access to the essence and beauty of this subject. Recent growth in secondary school completion rates in Australia has been accompanied by increases in the numbers of students taking lower level courses of this kind. Since the mid-1990s, the percentage of Year 12 students taking elementary mathematics has grown by 30 per cent while the percentages taking intermediate and advanced mathematics have declined by 22 and 27 per cent respectively.^v

A third way in which low expectations can be institutionalised is through the *prejudging of students’ capabilities based on their group membership*. When students are grouped according to demographic characteristics, it is clear that some student groups have higher average levels of achievement than others. For example, students living in rural and remote areas tend to have lower average achievement levels than students living in urban areas. Girls tend to outperform boys, particularly in language-rich subjects. Non-Indigenous students outperform Indigenous students, and students from high socioeconomic backgrounds outperform students from low socioeconomic backgrounds. In some cases, these gaps are the equivalent of two or more years of school. The problem arises when expectations of individuals are then lowered on the basis of the group/s to which they belong.

In educational practice, there is often a small

step from observing a correlation – for example between socioeconomic background and achievement – to treating this observation as an ‘explanation’. Low socioeconomic status is regularly invoked as an explanation for low achievement, despite the fact that some students from low socioeconomic backgrounds can be found among the highest achievers in our schools and universities, and some students from high socioeconomic backgrounds can be found among our lowest achievers. And from ‘explanation’, it is another small step to ‘expectation’ and beyond that to ‘excuse’. School principals who have led significant improvements in low socioeconomic areas often report that their first challenge was to confront low staff expectations. In these schools, teachers had come to expect low achievement on the basis of students’ backgrounds.

And there are other, more subtle, ways in which observed correlations can lead to lowered expectations. For example, it is a small step from comparing schools with statistically similar student intakes to concluding that students in a particular school are performing well ‘given their socioeconomic backgrounds’ or ‘given the proportion of Indigenous students in the school’. Conclusions of this kind border on what is sometimes referred to as the ‘soft bigotry’ of low expectations. Prejudging and ‘prejudice’ have identical etymological origins: both can be the result of ignoring individuality and assigning individuals the presumed characteristics of a group.

There is a long history in school education of observing differences in average group performances and then designing programs and initiatives to address the needs of specific student groups (for example, the needs of boys, Indigenous students or students from low socioeconomic backgrounds). However, there is little evidence that the achievement gaps such programs and initiatives were designed to address have closed significantly in recent decades. More generally, there is a question as to whether emphasising group membership is counterproductive. A preoccupation with demographic distinctions may serve only to highlight existing differences and cement future expectations.

A fourth way in which low expectations can be institutionalised is by *prejudging students’ capabilities on the basis of their age or grade*.

Schools continue to be organised on traditional lines with students grouped and taught in grades based on age. Under this ‘assembly-line’ model, students move in a lock-step fashion from one year to the next, with teachers at each stage delivering the curriculum for that grade.^{vi} This model has been strengthened in recent years with the development of explicit grade-based curricula with accompanying assessments to establish how much of the curriculum for their grade students have mastered. This practice is another example of the use of group membership to set expectations for student learning.

The reality in learning areas such as mathematics and reading is that, despite this lock-step model, students in the same grade currently vary in their achievement levels by as much as five or six years of school. As Dylan Wiliam has observed, in practice there is only a loose relationship between educational achievement and age.^{vii} If teachers treat all students of the same age as equally ready for the same grade-based curriculum and teach to the middle of the grade, then some lower-achieving students are likely to be left behind. There is evidence that many of these students fall further behind with each year of school. At the same time, expectations are lowered for higher-achieving students when learning is limited to the completion of class work targeted at the middle of the grade. It is not uncommon to hear of classes in which more able students, rather than being challenged and extended, are given ‘free time’ once they have completed set class work.

In spite of limiting beliefs and practices of this kind, many teachers, school leaders and parents share powerful alternative beliefs about student learning. These include beliefs that every individual is capable of learning, with no natural limits on what most individuals can learn; that at any given time, students are at different points in their learning and may be progressing at different rates, but that all are capable of further progress if motivated and if provided with learning opportunities appropriate to their readiness and needs; that individual differences in ability to learn are readily compensated for by effective teaching; that starting points for teaching are best established individually rather than inferred from group membership; and that excellent, ongoing progress is a more appropriate expectation of every learner than the expectation that all students

of the same age/grade will be at the same point in their learning at the same time. In situations where teachers, school leaders and parents share beliefs of this kind, expectations are raised and students perform beyond the limits imposed by the rationing of excellence, low-level courses that deny access to high achievement, reduced expectations of particular demographic groups and grade-based assembly lines.

-
- i Rizzolatti G & Fabbri-Destro M (2010). Mirror neurons: from discovery to autism. *Experimental Brain Research*, 200(3-4):223-37
 - ii Dweck, CS (2000). *Self-theories: Their role in motivation, personality and development*. Philadelphia: Psychology Press.
 - iii Otsuka, S & Smith, I (2005). Educational applications of the expectancy-value model of achievement motivation, *Change: Transformations in Education*, 8(1), 91-109.
 - iv Brown, G (2009). *Review of Education in Mathematics, Data Science and Quantitative Disciplines*. Report to the Group of Eight Universities. Canberra.
 - v Rubinstein, H (2009). *A National Strategy for Mathematical Sciences in Australia*. Report prepared in consultation with the Australian Council of Heads of Mathematical Sciences. Melbourne.
 - vi Darling-Hammond, L (2004). Standards, accountability, and school reform. *Teachers College Record*, 106(6), 1047-1085.
 - vii Wiliam, D (2007). Once you know what they've learned, what do you do next? Designing curriculum and assessment for growth. In R. Lissitz (Ed.) *Assessing and Modeling Cognitive Development in School*. Maple Grove: MN: JAM Press.