



Every
child,
every
opportunity



Visible learning: what's good for the goose...

Research by John Hattie suggests that what works best for students is what works best for teachers.

Professor John Hattie recently visited Victoria to discuss his latest book, *Visible Learning: A synthesis of over 800 meta-analyses relating to achievement*. His book is a culmination of 15 years of research incorporating more than 50,000 studies and over 800 meta-analyses involving millions of students and represents the largest collection of evidence-based research into what actually works in schools to improve learning.

The aim of the book is not to overwhelm the reader with the wealth of research; rather it builds an exploratory story about the influences on student learning and then defends the nature and value of this story through the research evidence.

The overall message in this book is the importance of “visible teaching” and “visible learning”. Hattie suggests that visible teaching and learning occurs when learning is the explicit goal: when there is feedback given and sought and when there are active, passionate, and engaging people, including teachers, students, and peers participating in the act of learning.

Hattie points out that the main feature of the research evidence is that the “biggest effects on student learning occur when teachers become learners of their own teaching, and when students become their own teachers”. This allows students to show self-regulatory attributes that are most desirable for learners, such as self-monitoring, self-evaluation, self-assessment, and self-teaching.

The research evidence supports another important message: “what teachers do matters”, particularly those who teach in the most deliberate and visible way. These teachers intervene in calculated and meaningful ways to alter the direction of learning in order to attain the desired goals. They also provide students with a range of learning strategies, including direction and re-direction and maximising the power of feedback from the student. Hattie suggests that teachers need to deliberately intervene to enhance teaching and learning, particularly when the content is not understood.

Hattie argues that successful classrooms have visible teaching and learning, where there is great passion displayed by the teacher and learner, and where there is a variety and depth of skill and knowledge by both teacher and student. Teachers must know when learning is correct or incorrect; learn when to experiment; learn to monitor, seek and give feedback; and know how to try alternative learning strategies



when some don't work. A key message is "the more the student becomes the teacher and the more the teacher becomes the learner" the more successful the achievement outcomes.

Hattie examines six factors and assesses their respective contributions to achievement. These factors are: the child; the home; the school; the teacher; the curriculum and the approaches to teaching. In terms of the child, Hattie argues that the child or student brings to school factors that influence achievement (from preschool, home, and genetics) as well as a set of personal dispositions that can have marked effect on the outcomes of schooling. The home can either nurture and support achievement of students, or it can be harmful and destructive.

Hattie also suggests that positive expectations from the parents can be critical to the success of children. As such, parents need to know how to "speak the language of schooling" so that they can provide assistance to their children in terms of developing the child's learning and love of learning, and in creating high and positive shared expectations for learning.

In regards to the school, his research suggests that the most powerful effects relate to features within the school, such as the climate of the classroom, peer influences, and the lack of disruptive students in the classroom. There are a number of teacher contributions to student learning, such as teacher expectations; teachers' conception of teaching; and teacher openness. Hattie argues that the most critical aspect contributed by the teacher is the quality of their teaching as perceived by the students.

The curriculum also needs to provide opportunities for a balance between surface and deep understanding, based on specific learning intentions and success criteria. He examines these six factors and their associated variables and ranks them in terms of their effect on achievement outcomes (see Table 1: Top 20 influences on student learning and achievement).

Overall, Hattie argues that teachers need to seek feedback on their practice from both students and colleagues. They also need to help students become their own teachers. Through more visible teaching and learning, there is a greater likelihood of students reaching higher levels of achievement.

Table 1: Top 20 influences on student learning and achievement

This table contains the top 20 influences as measured by 'effect size' on student achievement. In total, Hattie analysed and ranked 138 influences.

Rank	Domain	Influence
1	Student	Self-report grades
2	Student	Piagetian programs
3	Teaching	Providing formative evaluation
4	Teacher	Micro teaching
5	School	Acceleration
6	School	Classroom behavioural
7	Teaching	Comprehensive interventions for learning disabled students
8	Teacher	Teacher clarity
9	Teaching	Reciprocal teaching
10	Teaching	Feedback
11	Teacher	Teacher-student relationship
12	Teaching	Spaced vs. mass practice
13	Teaching	Meta-cognitive strategies
14	Student	Prior achievement
15	Curricula	Vocabulary programs
16	Curricula	Repeated reading programs
17	Curricula	Creativity programs
18	Teaching	Self-verbalization/self-questioning
19	Teacher	Professional development
20	Teaching	Problem-solving teaching

Source: Hattie 2009, *Visible learning: a synthesis of over 800 meta-analyses relating to achievement*.

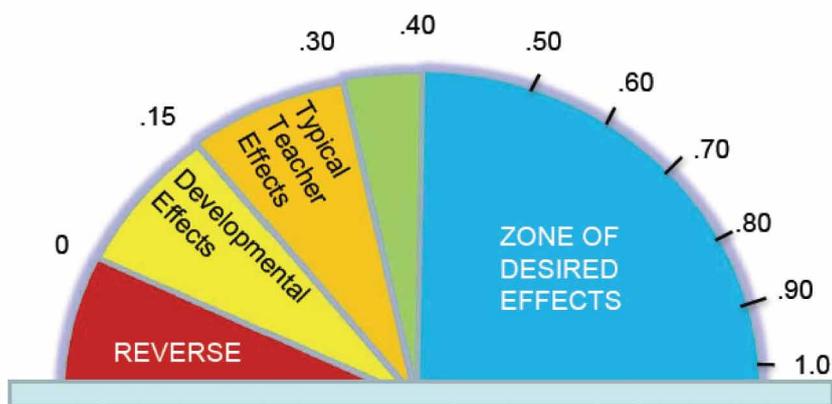


Figure 1: Influences on achievement

This figure is a barometer of influence developed by Hattie and used throughout his book. For all the variables or attributes evaluated, the average of each influence is indexed by an arrow through one of the zones on the barometer. All influences above $d = 0.40$ are labelled as 'Zone of desired effects' as these influences have the greatest impact on student achievement outcomes. The typical effects from teachers are between $d = 0.15$ and $d = 0.40$; and the zone between $d = 0.0$ and $d = 0.15$ is what students could probably achieve if there was no schooling.

For example, Hattie identified some of the influences that the child brings into a school (through the effects of their achievements, their personality dispositions, and their preschool experiences). Students' 'self-report grades' had the highest influence with an effect size of 1.44. This is typically formed from past experiences in learning and students have a reasonably accurate understanding of their levels of achievement and chances of success. On the other hand, Hattie found very little or non-substantial effects from gender, diet, and exercise. Gender has an effect size of 0.12. Hattie suggests that contrary to popular beliefs, males and females are similar on most, but not all, psychological variables – they are more alike than they are different.

This article was coordinated through the Research Branch, Department of Education and Early Childhood Development.

Further information about the Research Branch is available at: <http://www.education.vic.gov.au/researchinnovation/default.htm>

To contact the Research Branch email: research@edumail.vic.gov.au

An earlier version of this article appeared in *Shine* (April 2010; Issue 03).