JOHN HATTIE
VISIBLE LEARNING FOR TEACHERS

Introduction

“My role as teacher is to evaluate the effect I have on my students”
Hattie published Visible Learning in 2009

It was an analysis of hundreds of meta-analyses

Reviews hailed it as the “Holy Grail”

Others saw it as an attack on the woeful state of the teaching profession

Hattie saw it as a chance to show what makes a difference to students
META-ANALYSES
WHAT IS A META-ANALYSIS

- Identify an outcome
- Identify an influence
- Research to find studies that include the outcome and the influence
- Determine effect sizes
- Establish comparisons
THE HOMEWORK EXAMPLE

- Outcome = student achievement
- Influence = homework
- Research = 59 studies from past 20 years
- Effect = \((d=0.40 \text{ overall, } d=0.5 \text{ for secondary and } d=-0.08 \text{ for primary})\)
- Conclusion - Secondary students are better able to self regulate and monitor their work and time
THE HOMEWORK EXAMPLE

- Questions must be asked
  - did the effects differ according to age, subjects, types of homework, the quality of the analysis
- Hattie combines meta-analyses to come up with overall synthesis of the data
THE HOMEWORK EXAMPLE

- Outcome = student achievement
- Influence = homework
- Research = 161 studies from over 100000 students
- Effect = (d=0.29 overall)
- Conclusion - Student achievement goes up with a homework programme
THE HOMEWORK EXAMPLE

- Learning improves by 15%
- 65% of the effects are positive; 35% zero or negative

Here it is
WHAT DOES 0.29 LOOK LIKE IN A CLASS?

- Hattie argues that a 0.29 difference is barely noticeable to the naked eye.

- He uses the argument that the difference is the same as someone 1.82m tall vs 1.80m tall.

- What is important is that the teacher knows if it is worth making a change.
Visible Learning: The Numbers

- More than 800 meta-analyses examined
- 52,637 studies
- About 240,000,000 students
- 146,142 effect sizes
- “VL For Teachers” adds a further 100 meta-analyses
- Overall effect size is $d=0.40$
WHAT DOES D=0.40 MEAN?

- Generally
  - less than 0.3 is a small effect
  - 0.3-0.6 is a medium effect
  - more than 0.6 is a large effect

- BUT “a small effect that requires few resources may be more critical than a larger one that requires high level of resources”
CLASS SIZE

1: 35

School Day Memories
Reducing from 25-30 students to 15-20 is about 0.22

Teaching specific programmes to assist students in test taking is about 0.27

Hattie argues that the effect sizes are similar but one is much less difficult to resource (the latter in case you’re wondering)
Barometers of Influence

\[ d = 0.0 - 0.15 \]
What students could achieve without schooling

\[ d = 0.15 - 0.4 \]
Typical effects of teachers on students that can be accomplished in a year of teaching

\[ d > 0.4 \]
Zone of desired effects

Below \( d = 0.0 \) Decrease achievement
WHAT TEACHERS SHOULD AIM FOR

- Hattie points out that all of his research is what has happened.
- Schools need to look at the evaluations and comments to judge whether it will make enough of a difference for their students.
- His 0.4 “hingepoint” is overall but it varies depending on the influence you’re looking at.
Hattie notes that “almost everything works”

“All that is needed to enhance student achievement is a pulse.”

His 0.4 target is based on the average effect.

He argues that schools should aim to make at least a 0.4 difference as this should be achievable.
He notes that this hinge-point is not for making decisions, but instead to start discussions about the effect teachers can have on students.
“Visible teaching and learning occurs when there is deliberate practice aimed at attaining mastery of the goal, when there is feedback given and sought, and when there are active, passionate, and engaging people (teacher, students, peers) participating in the act of learning.”
“The remarkable feature of the evidence is that the greatest effects on student learning occur when teachers become learners of their own teaching, and when students become their own teachers”
Hattie argues that teachers need to become effective evaluators of their own practice.

The teacher’s mind frame is critical.

Effective teachers change what is happening when learning is not occurring.
What he is not saying is that “teachers matter”

He calls this a cliche that is completely unsupported in his research

The greatest source of variance in our system relates to teachers (both between teachers and even a single teacher can vary in practice across days, a lesson with students)
What does matter is teachers having a mind frame in which they see it as their role to evaluate their effect on learning.

This results in teachers making calculated interventions, providing students with multiple opportunities and alternatives to learn, at both surface and deep levels.

Learning is a very personal journey.
The act of teaching requires deliberate interventions to ensure that there is cognitive change in the student:

- learning intentions
- knowing when success occurs
- knowing prior learning
- providing meaningful and challenging experiences
Passion is more than just being charming and joyous.

Hattie argues that passionate teachers are thrilled by achievement and frustrated by challenges.

He argues that passionate teachers are infectious.

It requires a love of the content, a care for the subject, a desire to make others love it too, and a desire to continue to learn.
Learning is not always easy or pleasurable

Passionate teachers can help students see the need and reward in the challenge

This requires detailed and timely feedback

He also discusses the need for fluency.

“Overlearning” is what happens when we reach a stage of knowing what to do without thinking about it.
CONCLUSIONS

- When teaching and learning are visible, there is a greater likelihood of students achieving higher
- Teachers need to be evaluators and activators
- Importance of feedback
- Seeking further challenges
- Importance of teacher mind frames
EXERCISE

- Decide whether, on average, they have a low, medium, or high impact on student achievement.

- There are 11 high, 9 medium, 10 low.

- Once you’ve completed it, compare it to the following slides.

- What may need to change in your class or the school?
HIGH

- Student expectations (1.44 - 1st)
- Teacher credibility in eyes of the students (0.9 - 4th)
- Providing formative evaluation to teachers (0.9 - 4th)
- Feedback (0.75 - 10th)
- Reciprocal teaching (0.74 - 11th)
- Teacher-student relationships (0.72 - 12th)
- Meta-cognitive strategy programmes (0.69 - 14th)
- Acceleration (eg skipping a year) (0.68 - 15th)
- Vocabulary programmes (0.67 - 17th)
- Comprehension programmes (0.6 - 26th)
- Concept mapping (0.6 - 27th)
MEDIUM

- Cooperative vs individualistic learning (0.59 - 28th)
- Direct instruction (0.59 - 29th)
- Providing worked examples (0.57 - 32nd)
- Phonics instruction (0.54 - 36th)
- Influence of peers (0.53 - 41st)
- Home environment (0.52 - 44th)
- Professional development on student achievement (0.51 - 47th)
- Teacher expectations (0.43 - 62nd)
- Using simulations and gaming (0.33 - 86th)
LOW

- Individualised instruction (0.22 - 109th)
- Reducing class size (0.21 - 113th)
- Within-class grouping (0.18 - 120th)
- Matching teaching with student learning styles (0.17 - 125th)
- Ability grouping / tracking / streaming (0.12 - 131st)
- Gender (male compared with female achievement) (0.12 - 133rd)
- Teacher subject knowledge (0.09 - 136th)
- Whole-language programmes (0.06 - 140th)
- Student control over learning (0.04 - 144th)
- Retention (holding back a year) (-0.13 - 148th)