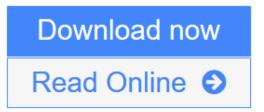


# Visible Learning and the Science of How We Learn

John A.C. Hattie, Gregory Yates



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On publication in 2009 John Hattie's *Visible Learning* presented the biggest ever collection of research into what actually work in schools to improve children's learning. Not what was fashionable, not what political and educational vested interests wanted to champion, but what actually produced the best results in terms of improving learning and educational outcomes. It became an instant bestseller and was described by the TES as revealing education's 'holy grail'.

Now in this latest book, John Hattie has joined forces with cognitive psychologist Greg Yates to build on the original data and legacy of the Visible Learning project, showing how it's underlying ideas and the cutting edge of cognitive science can form a powerful and complimentary framework for shaping learning in the classroom and beyond.

Visible Learning and the Science of How We Learn explains the major principles and strategies of learning, outlining why it can be so hard sometimes, and yet easy on other occasions. Aimed at teachers and students, it is written in an accessible and engaging style and can be read cover to cover, or used on a chapter-by-chapter basis for essay writing or staff development.

The book is structured in three parts - 'learning within classrooms', 'learning foundations', which explains the cognitive building blocks of knowledge acquisition and 'know thyself' which explores, confidence and self-knowledge. It also features extensive interactive appendices containing study guide questions to encourage critical thinking, annotated bibliographic entries with recommendations for further reading, links to relevant websites and YouTube clips. Throughout, the authors draw upon the latest international research into how the learning process works and how to maximise impact on students, covering such topics as:

| teacher personality;                                      |
|---|
| expertise and teacher-student relationships;              |
| how knowledge is stored and the impact of cognitive load; |
| thinking fast and thinking slow;                          |
| the psychology of self-control;                           |

the role of conversation at school and at home;
invisible gorillas and the IKEA effect;
digital native theory;

myths and fallacies about how people learn.

This fascinating book is aimed at any student, teacher or parent requiring an up-to-date commentary on how research into human learning processes can inform our teaching and what goes on in our schools. It takes a broad sweep through findings stemming mainly from social and cognitive psychology and presents them in a useable format for students and teachers at all levels, from preschool to tertiary training institutes.

### Visible Learning and the Science of How We Learn Details

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# From Reader Review Visible Learning and the Science of How We Learn for online ebook

### Diz says

This is a great introduction to the science of thinking as it pertains to learning. It summarizes recent studies in this field in an easy-to-read manner. It avoids the use of jargon when possible, and when new terms are introduced, it does a good job of explaining them simply and clearly. I recommend this for all teachers.

### Caryn says

I read this book in preparation of returning to teaching after nearly 8 years being at home with my children. It provide some good insight into how we learn. I think it will be worth rereading once I have been back in the classroom for a while.

### **Scott Kennedy says**

Great book for teachers bringing together research into various aspects of learning. One interesting concept for me was the idea of automaticity. This is where you become so used to what you are doing that it doesn't take up so much of your brain processing. Gaining automaticity enables the brain to focus on more complex tasks. For example, one you can just look at words and read them without having to spend time decoding, you are able to comprehend more, because your brain has more available resources to deal with the comprehension side of things rather than the decoding side. Research also rubbishes the idea of teacher as facilitator, and in fact direct explicit teaching is shown to be a far more effective kind of teaching than 'facilitating.' There is also some interesting information about memory and how it works. Another chapter of interest was on learning styles. Apparently the research does not support the idea that knowing learning styles will help you teach your students any better than not knowing their learning styles. I also enjoyed the chapter on multitasking, which was shown to be a fallacy. Finally, there was also a helpful chapter on technology and education and whether technology is changing the way we learn.

#### Jane says

This book has the what and why on what raises measures of academic achievement, as well as chapter on how body language, cognitive load, investment via creation of product, etc., impact learning. However, in many places the great information is buried via too much background information or citing of more studies than necessary. And, there is little on the "how" to implement many of the ideas.

#### **Eric Leitz says**

#### Worth reading twice

If you're struggling to interpret Hattie's effect sizes and put them into practice, this is a good book to start. You get research that shows what common practices get wrong and suggested replacements for those practices that will work.

### **Christopher Bounds says**

Excellent and readable summary of a range of research on learning and teaching, which makes it a good catch-up for the busy practitioner as well as others who are interested. One of the strengths of the work of Hattie and his associates has been to blow up some of the myths that draw so much energy away from the central business of helping students to learn.

### **Ann Deraedt says**

"Knowing what to do matters more than knowing what your level is"

It is a book a need beside me so that I can use it to be a better teacher for my students.

### Frank Calberg says

What can teachers do to help people learn:

- Location 1300: Invite students to engage actively with learning sources. This role is agreed upon by all parties and all theories of learning.
- Location 1800: Give feedback. Students need to know how to close the gap between where they are now and where they need to be. Therefore, they need feedback that provide information they need to achieve their goals where to next! In this regard, I learned that peer feedback is, for students, often helpful / valuable.
- Location 2800: Start from the knowledge / skill that people already have and take small steps forwards with them.
- Location 4950: Help students strengthen their self-regard / self-esteem. Research shows there are links from self-esteem to many positive traits such as school achievement, being liked by others, reduced anxiety, robust mental health, and positive social attitudes. If we can develop positive self-regard in our students, other positive outcomes such as motivation, social responsibility, and achievement, will follow.
- Location 6000: Smiling is among the most powerful tools that a teacher can use to advantage. Posture matching and mimicking the behavior of another person are also mentioned. People, who cooperate and get on well, will show a high level of behavioral mirroring.

What can people do to learn:

- Location 2500: Stop multitasking. The human mind is unable to genuinely focus on 2 activities at once. The moment you remove your attention from a task, you can expect no meaningful learning or skill development to take place.
- Location 2500: Learn a new skill in short blocks of around 20 minutes followed by short rest periods. Why? Because mind wandering will occur after 15 to 20 minutes. This finding calls for professional moderation of any event at which people participate. Skill development involves periods of growth followed by periods of consolidation or even lack of growth.
- Location 2800: When the mind actively does something, it becomes memorable.
- Location 2800: It is far easier to build on existing knowledge than it is to learn new material from scratch.

New information, which cannot be related to existing knowledge, is quickly shed.

- Location 4400: Focus on doing 1 thing in a quiet environment. Studying requires clear, mental focus. In terms of being able to focus, study, and learn, the recommended context has to be that of quietness and lack of external stimulation. When two signals come in at once, your attention will be drawn to one of them. If you try to learn two different things within 10 to 15 minutes of each other, the brain gets them mixed up, and confusion results.
- Towards the end of the interesting book, two effects relevant for successful learning are mentioned: The IKEA effect and the endowment effect. The IKEA effect stems from the personal contributions and actual work that an individual student puts into achieving a worthwhile goal, project, or product. And the endowment effect works through simple ownership of the finished product.

### **KP** says

Brilliant, really up to date with tantalizingly interesting references included throughout. It isn't often one can pick up a text book and read it from cover to cover. The questions at the end of chapters really helped to tease out my understanding and it is well worth getting to the later chapters on invisible gorillas and the IKEA effect.

### Megan says

Good information for teachers on the results of scientific research on the process of learning. Practical, well-supported, and easy to read.

#### Chrissi says

Done...finally. Brilliant research, many good and thoughtful ideas to put into practice in teaching.

### **Stuart Macalpine says**

If you teach humans ... It is probably worth reading.

#### PJ says

An engaging and accessible guide to teaching and learning for both new teachers and experienced ones alike, steeped in the most up-to-date educational pedagogy.

Easy to read and digest it focuses throughout on improving student outcomes, basing it's ideas and principles on solid scientific research.

The journey from classroom learning, through how we learn to the nature of self, confidence and fast/slow thinking makes a lot of sense.

For the new teacher it serves a a toolbox of ideas on teaching and learning that can be used immediately in the classroom environment.

For the more experienced teacher it provides many thought provoking ideas that serve to challenge a teacher's thinking or way of doing things.

### Alex says

I don't generally read all the way through a textbook for any class, but this one is the exception. Hattie and Yates turn around so many misconceptions and I was riveted throughout the entire text. Good textbooks like this one that don't instantly put me to sleep are a rarity.

### Ryan Maynard says

This text helped clarify a lot of myths or misremembered ideas about learning I previously held. It is written in a pleasant tone, doesn't ramble, and was an enjoyable read.

While it seems like it may be assigned reading for those pursuing a teaching degree, I think it holds further value to anyone in a profession that requires a great deal of self-education, like software.