

Hattie J. and Zierer K. (2018). 10 Mindframes for Visible Learning: Teaching for Success, Oxford: Routledge

What is Visible Learning?

The work on the original Visible Learning meta-study took more than 15 to 20 years to complete. It involved analyzing more than 800 meta-analyses composing around 80,000 studies in which an estimated (because the number of test subjects is not always stated in the meta-analyses) 250 million learners took part – and, as just noted, the work on the Visible Learning project is not yet finished: A total of more than 1,400 meta-analyses now have been analyzed to date, but little has changed about the main messages of the study.

Only meta-analyses relating the achievement outcomes are considered. Others are doing similar work with respect to emotional and motivational outcomes (Korpershoek et al., 2016), how we teach (Hattie & Donoghue, 2016), and special education students (Mitchell, 2014), and it would be wonderful if there were meta-syntheses on retention to the last years of schooling, and physical and nutritional outcomes.

Visible Learning seeks to get to the crux of this multitude of findings from educational research and identify the main messages by synthesizing meta-analyses. The aim is to move from “what works” to “what works best” and when, for whom, and why. The search to understand these moderators (when, whom, why) was key in the search, and that there were so few moderators was quite surprising. The search involved first generating around 150 factors from the underlying meta-analyses, such as “class size,” “teacher-student relationships,” “direct instruction,”

and “feedback,” and then determining their effect size, which can be calculated via comparing the averages of two conditions (e.g. a new vs. older curriculum, reducing class size from 25–30 to 15–20) or by comparing students over time after some intervention. The beauty of effect sizes is that, once computed, they can be reasonably compared across many interventions. There are many excellent sources for understanding effect sizes (Coe, 2012; Lipsey & Wilson, 2001). Like every other method, meta-analyses – and especially the innovative attempt in Visible Learning to construct a synthesis of meta-analyses – are, of course, not without their flaws, and it is, therefore, important to refer to some of these criticisms (cf. Snook et al., 2009; Zierer, 2016b).

The various influences generated from the multiple meta-analyses can be assigned to various domains: learners, family, school, teacher, curriculum, and teaching. The table below provides a summary of the procedure as a whole.¹

This summary already reveals an important finding: There are domains that have been the topic of much research, such as teaching, and domains that have been the topic of fewer research syntheses, such as family. As important, there can be great variation in the dispersion of effect sizes within the domains: Whereas most of the factors in the domain of school, for instance, are clustered around an effect size of 0.2, the factors in the domain of teacher achieve effect sizes between 0.12 (“teacher education”) and 0.90 (“teacher credibility”). Understanding this variance is important to building the case for the importance of teacher mind frames as one of the critical underlying factors underlying these many influences.

Across the 800 meta-analyses included in the meta-study, the variability of the effects can be shown in the following distribution (see Figure 0.4).

FACTORS	META-ANALYSES	STUDIES	OVERALL EFFECT SIZE	
Learners	19	152	11,909	0.39
Family	7	40	2,347	0.31
School	32	115	4,688	0.23
Teacher	12	41	2,452	0.47
Curriculum	25	135	10,129	0.45
Teaching	55	412	28,642	0.43

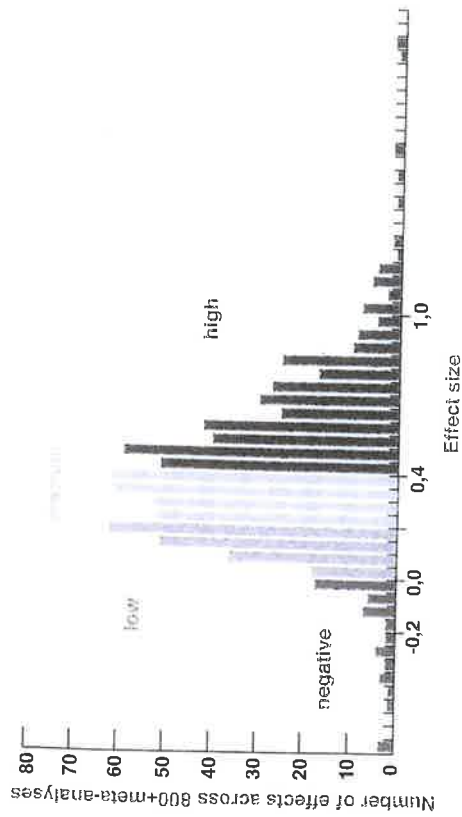


FIGURE 0.4 Distribution of effect size

Source: Hattie and Zierer (2017).

In many ways, this distribution shows that practically everything that happens in school and the classroom can lead to an increase in academic performance. To put it another way, 90 to 95 percent of what we do to learners increases their achievement. One might think that this would reassure us teachers, but that is not the case. The only thing this result illustrates is that people are learning all the time – sometimes despite us. This helps explain why almost everyone can claim “evidence” for their favorite influence. In many senses, you cannot prevent learning.

The key notion, however, is that we should be asking about the story underlying those influences greater than the average effect compared with those influences below the average effect (but still positive). This is the *Visible Learning* story and has been well rehearsed in other *Visible Learning* books and not recited here. The question this book addresses is related to the one big critical idea underlying success in making a difference to the learning lives of students – the mindframes of the educators.

How is this book organized?

Against this backdrop, we would like to introduce several general methodological considerations regarding the book itself. We have selected the following elements to illustrate the ten mindframes on

the basis of findings from empirical educational research as outlined in the *Visible Learning* books.

- We know today that learning is more successful when teachers succeed in activating and taking account of the prior knowledge and previous experiences of their students. For this reason, each chapter begins with a questionnaire for self-reflection that was developed with the help of a survey of more than 500 teachers.
- We know that achievement gains in general and success in particular depend not only on knowledge and ability but also and especially on will and judgment of the teacher and students. For this reason, the questionnaires at the beginning of the chapters are designed to reveal the reader's own understandings, knowledge, will, and judgment.
- We know that clarity in regard to learning objectives is important for learning success. For this reason, we state the main messages of each chapter and present examples to illustrate it. This paves the way for an understanding of the procedure followed in the chapter.
- We know that an orientation toward problems, experience, and actions is an important element of successful instruction (cf. Merrill, 2002). For this reason, we provide recommendations for action and include sample problems and tasks for reflection as often as possible to illustrate the theoretical and empirical findings presented in the text.
- We know that summaries at the end of a lesson are conducive to learning. For this reason, we present a checklist at the end of each chapter to help readers review and practice the material.
- We know that learning involves deliberate practice. For this reason, we present exercises at the end of each chapter. These exercises refer to the questionnaire at the beginning of the chapter in order to assist making the learning visible. They focus on classroom practice and provide support in planning and analyzing lessons. Special emphasis is always placed on possibilities for cooperation and the search for evidence for one's own thought and actions.
- We know that expertise requires both competence and an appropriate mindframe. For this reason, we endeavor to address these two aspects repeatedly in this book and bring them into the conversation – for instance by encouraging considerations on mindframes

