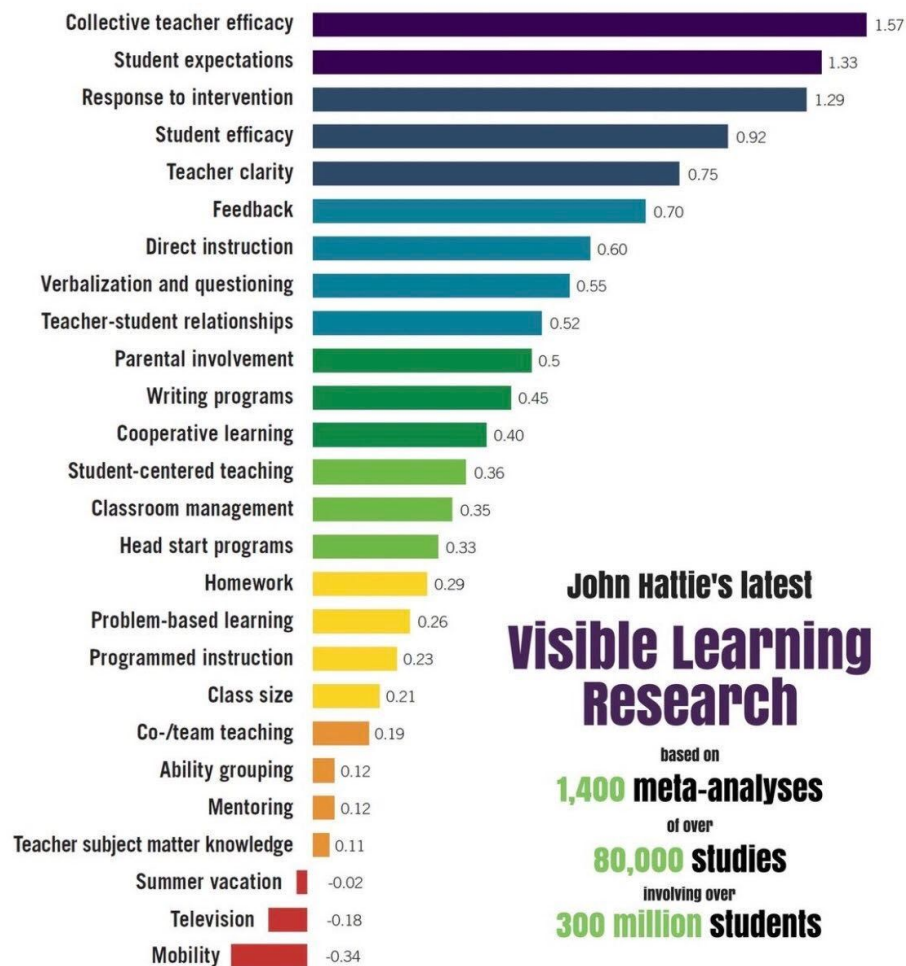John Hattie developed a way of synthesizing various influences in different meta-analyses according to their effect size (Cohen's d). In his ground-breaking study "Visible Learning" he ranked 138 influences that are related to learning outcomes from very positive effects to very negative effects. Hattie found that the average effect size of all the interventions he studied was 0.40. Therefore he decided to judge the success of influences relative to this 'hinge point', in order to find an answer to the question "What works best in education?"

Originally, Hattie studied six areas that contribute to learning: the student, the home, the school, the curricula, the teacher, and teaching and learning approaches. (The updated list also includes the classroom.) But Hattie did not only provide a list of the relative effects of different influences on student achievement. He also tells the story underlying the data. He found that the key to making a difference was making teaching and learning visible. He further explained this story in his book "Visible learning for teachers".

John Hattie updated his list of 138 effects to 150 effects in Visible Learning for Teachers (2011), and more recently to a list of 195 effects in The Applicability of Visible Learning to Higher Education (2015). His research is now based on nearly 1200 meta-analyses – up from the 800 when Visible Learning came out in 2009. According to Hattie the story underlying the data has hardly changed over time even though some effect sizes were updated and we have some new entries at the top, at the middle, and at the end of the list.

Influence	Effect size
Collective teacher efficacy	1.57
Student expectations	1.33
Response to intervention	1.29
Student efficacy	0.92
Teacher clarity	0.75
Feedback	0.70
Direct instruction	0.60
Verbalization and questioning	0.55
Teacher-student relationships	0.52
Parental involvement	0.5
Writing programs	0.45
Cooperative learning	0.40
Student-centered teaching	0.36
Classroom management	0.35
Head start programs	0.33
Homework	0.29
Problem-based learning	0.26
Programmed instruction	0.23
Class size	0.21
Co-/team teaching	0.19
Ability grouping	0.12
Mentoring	0.12
Teacher subject matter knowledge	0.11
Summer vacation	-0.02
Television	-0.18
Mobility	-0.34

John Hattie's latest

Visible Learning Research

based on
1,400 meta-analyses
of over
80,000 studies
involving over
300 million students

Text above, sourced from Visible-Learing.org wher you can also find the full list of factors relating to student outcomes.

Hattie's Actions Explained:	*Recommended Actions from CDE:*
● **Collective Teacher Efficacy (1.57)** ○ Collective teacher efficacy (STE) is the collective belief of the staff of the school in their ability to positively affect students. A school staff that believes it can collectively accomplish great things is vital for the health of a school. ● **Students Expectations (1.33)** ○ Student Expectations is the strategy that involves the teacher finding out what are the student's expectations of their own learning and pushing the learner to exceed these expectations. Once a student has performed at a level that is beyond their own expectations, he or she gains confidence in his or her learning ability. ● **Response to Intervention (1.29)** ○ Response to intervention (RTI) is an educational approach that provides early, systematic assistance to children who are struggling in one or many areas of their learning. RTI seeks to prevent academic failure through early intervention and frequent progress measurement. ● **Feedback (.70)** ○ Feedback on task, process and self regulation level is far more effective than on the Self-level (e.g. praise which contains no learning information). Descriptive feedback is closely related to providing formative assessment (see above). ● **Teacher Clarity (.75)** ○ One of the main points of Hattie's books about Visible Learning is the importance to clearly communicate the intentions of the lessons and the success criteria. Clear learning intentions describe the skills, knowledge, attitudes and values that the student needs to learn. Teachers need to know the goals and success criteria of their lessons, know how well *all* students in their class are progressing, and know where to go next. ● **Teacher Estimates of Achievement (1.29)** ○ Train staff to be culturally proficient in order to create culturally aware and responsive classrooms. ● **Phonics Instruction (.70)** ○ A method of teaching reading that stresses the acquisition of letter-sound correspondences and their use in reading and spelling. Phonics instruction focuses on teaching students how to use letter-sound relationships to read or spell words. Phonemic awareness becomes phonics instruction when students are taught to blend or segment the sounds in words using letters. ● **Writing Programs (.45)** ○ The research indicates that students achieve at higher levels when they're able to write, write often, and write across content areas. A focus on literacy is key to improving outcomes for students.	● **MTSS** ○ Utilize a Multi-tiered System of Supports (MTSS) framework to offer tiered interventions and social-emotional learning. The framework includes practices such as PBIS, social emotional learning (SEL), and restorative practices. ● **Trauma Informed Practices** ○ Implement trauma-informed practices to provide appropriate care and support to students who have suffered trauma. ● **Increasing Student Voice** ○ Utilize youth development strategies and activities that promote caring relationships, high expectations, and meaningful participation among all students. Students' voices are promoted through student focus groups ● **Eliminate zero tolerance policies.** ● **Progressive Discipline Matrix** ○ Develop a progressive disciplinary matrix and educate all students and staff about the expectations of student behavior in the beginning of the school year. Train all staff, develop student referral forms and regularly collect data ● **Culturally Responsive Teacher Training** ○ Train staff to be culturally proficient in order to create culturally aware and responsive classrooms. ● **PD and Coaching for ELD Strategies** ○ Provide professional development and coaching to teachers on strategies that emphasize complex reading, writing, vocabulary, active engagement, and oral language to address LTEL needs and infuse academic literacy in all courses. ● **Progress Checks for LTEL Students** ○ Employ systems for monitoring progress and differentiating support for LTELs to accelerate learning, including progress checks and successful course completion. ● **PLC** ○ Professional communities of practice, relevant to the state academic content and ELD standards, are established to support mutually agreed-upon student learning goals and outcomes. ● **Culturally Responsive Teaching Strategies** ○ Educators use linguistically and culturally responsive instructional strategies and materials designed to address the cultural, social, physical, and emotional well-being of all students.