10 Mind-blowing Research Findings

to Supercharge Your Lessons

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1. Teachers are inept and deluded (Kruger & Dunning, 1999).
   * More than 90% of teachers think that they are above average (Cross, 1977).
   * Teachers are inept at recognizing our ineptitude because we don’t know what we don’t know and because we interpret the absence of complaints as success.
   * We underestimate how long it takes to learn skills we ourselves have mastered.
   * We overestimate what others know.
2. Effect-size indicates that some interventions work much better than others, despite what teachers believe.
   * Smaller class sizes (20-30 students) learn more than class sizes of about 80 (*d=*0.21) because smaller classes permit group work and more feedback on classroom behaviors (Hattie, 2009).
   * Computer-assisted learning (*d=*0.37) is 75% more effective at improving student performance than a smaller class size because of the volume of timely feedback it can deliver (Hattie, 2009).
3. Firing 10% of the worst teachers will dramatically improve education (*d=*0.75) and stimulate the economy (Hanushek, 2011).
   * Firing 8% of the worst teachers in the U.S. would raise the level of education to that of Finland.
   * Replacing an average teacher with an above average teacher adds $400 000 of value to the economy every year based on calculations of derived demand.
4. Degrees and experience have no effect on teacher quality (Hanushek, 2011).
   * Teacher quality only improves in the first 3-5 years of a teacher’s career, unless other measures are taken.
5. Teacher quality is best improved through video-recording your teaching (*d=*0.88), maximizing the clarity of your feedback (*d=*0.75), and developing good student-teacher relationships (*d=*0.72) (Hattie, 2009).
6. Teachers routinely sabotage student learning:
   * Using textbooks and lessons with irrelevant colour pictures compete with the text for the student’s attention and activate the wrong schema, making new information irretrievable (Harp & Mayer, 1997; Mayer, Heiser, & Lonn, 2001).
   * Over-emphasizing formal registers in courses for non-fluent (100 & 101) learners reduces integrative motivation when those students are placed in informal social situations (Segalowitz, 1976).
   * Prioritizing argumentation and debate in ESL reduce interest-based motivation to speak, group cohesion, and therefore group productivity (Poupore, 2014).
   * Prioritizing argumentation instead of narratives in courses for business students leaves them unprepared for the most common business communication tasks in corporations (Jameson, 2001).
   * Teaching the 5-paragraph essay encourages anti-scientific thinking (Berggren, 2008), and its overemphasis at college leaves students unprepared for the range of writing tasks they will face in the workplace and university—and teaching only the 5-paragraph essay has a deskilling effect on teachers (Moss, 2002).
   * Failing to align objectives, instruction, and evaluation tasks reduces achievement by up to two standard deviations (Cohen, 1987). The failure to align CEGEP ESL courses is most evident in the continued use of discrete-item grammar tests and academic writing tasks to test the range of verb tenses listed in the writing element of the 100 and 101 competencies. Academic writing contains a high frequency of simple present verbs only (Biber et al., 1999). In contrast, narrative writing tasks containing quoted speech can reliably elicit modals, simple present, present continuous, simple past, past continuous, present perfect, and future (*will* and *be going to*).
7. Disciplinary removal is ineffective at teaching the social curriculum, which is more effectively taught through presentation of positively framed rules, practice, and feedback, and by using colleagues to communicate expectations to students (Skiba & Peterson, 2003)
8. Production (even silent mouthing) enhances explicit recall better than silent study (McCleod et al., 2010).
9. Reciprocal teaching, getting students to teach each other, has more than three times the effect (*d=*0.74) on student learning than smaller class sizes (*d=*0.21) (Hattie, 2009).
10. Self-reporting grades (*d*=1.44) and formative exams (*d*=0.90) have the biggest impact on student learning of all the interventions reported in the scientific literature (Hattie, 2009).

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