

## Summary of Research on Collaborative Professional Learning and Its Impact on Teacher Efficacy and Student Achievement

### Introduction

Collaborative professional learning significantly enhances teacher efficacy and student achievement. This summary synthesizes research findings from John Hattie, Andy Hargreaves, Michael O'Connor, and other educational studies to make a compelling case for the value of collaborative work among educators.

### Key Findings from John Hattie's Research

John Hattie's work, particularly highlighted in his latest book 'Visible Learning: The Sequel,' is a meta-analysis that systematically combines results from multiple individual studies on the same topic to determine overall trends and effects. This approach provides a comprehensive understanding of the research findings by increasing the sample size and enhancing the reliability of the conclusions (Hattie, 2023).

Hattie has developed a method of synthesizing various influences on student learning according to their effect size. Basically, effect size is a statistical measure that indicates how impactful different variables are on student achievement and growth with 0.4 being the average of all the factors studied. An effect size of 0.4 represents one year's growth over the course of one school year. Anything above 0.4 has a greater positive impact on student learning.



### **Collective Teacher Efficacy**

Hattie identifies collective teacher efficacy as one of the most influential factors on student achievement, with an effect size of 1.34 (Hattie, 2023). Teacher efficacy is the belief teachers have in their own ability to positively affect student learning. This means that teachers feel confident that they can help students succeed, no matter what challenges they might face. Schools with high collective teacher efficacy can accelerate student achievement by more than three years' worth of academic progress in a single year (Hattie, 2023).

In practical terms, an effect size of 1.34 means that schools where teachers strongly believe in their collective ability to positively impact students can see substantial improvements in student performance. For instance, if teachers collaborate effectively and support each other, it could result in a significant boost in student engagement and overall achievement. Effective collaboration among teachers enhances their collective efficacy, leading to improved teaching practices and student outcomes (Hattie, 2023; Hargreaves, 2018).

As mentioned, collective teacher efficacy boasts an effect size of 1.34. In comparison, teacher-student relationships have an effect size of approximately 0.52. While also considered a strong effect, indicating that positive interactions and relationships between teachers and students meaningfully boost student achievement, the impact is notably less pronounced than that of collective teacher efficacy. This comparison highlights the exceptional influence of teacher collaboration and shared efficacy in fostering student success.

### **Improved Instructional Practices**

Hattie's research shows that professional learning communities (PLCs), where teachers engage in ongoing collaborative professional development, have an effect size exceeding 0.50 (Hattie, 2023). Schools implementing PLCs report a 6-10% improvement in standardized test scores over three years (Hattie, 2023).

Multiple studies, including the work by DuFour and Eaker highlight that PLCs lead to significant benefits in teaching methods and student learning (DuFour & Eaker, 1998). When teachers collaborate, they critically reflect on their practices, share insights, and challenge one another, leading to improved teaching strategies that directly benefit students.

McCornish and Parsons highlight how PLCs provide structured environments where teachers can engage in reflective dialogue. Through collaboration, teachers refine their instructional methods and develop new approaches that better engage students. This

self-examination leads to the adoption of more research-based instructional strategies, significantly enhancing student academic performance. The relationship between collaboration and achievement is particularly strong when teachers share a collective belief in their ability to make a difference.

### **Supportive School Culture**

Bryk and Schneider found that schools with high relational trust among staff are three times more likely to improve in reading and mathematics (Bryk & Schneider, 2002). This trust fosters a supportive culture crucial for effective collaboration.

Schools with collaborative cultures experience lower teacher turnover and higher job satisfaction, contributing to a more stable learning environment for students (Hargreaves, 2018).

### **Data-Driven Decision Making**

Schools where teachers collaboratively analyze student data see a 15% increase in students meeting proficiency standards on state assessments (Hamilton et al., 2009). Collaborative inquiry helps in making informed instructional decisions, leading to better-targeted interventions and improved student outcomes (Hamilton et al., 2009).

### **Innovative Teaching and Learning**

Schools fostering collaborative innovation report a 12% increase in student engagement and a 9% improvement in academic performance over two years (Stoll et al., 2006). Strong collaborative networks among teachers can lead to higher student scores on standardized tests (Leana, 2011).

### **Summary**

In summary, the collective body of research strongly supports the transformative power of collaborative professional learning in education. John Hattie's identification of collective teacher efficacy as one of the most impactful factors on student achievement, with an effect size of 1.34, reinforces the necessity of fostering collaborative environments in schools (Hattie, 2023). Studies show that when teachers engage in professional learning communities, there is a marked improvement in student performance, with standardized test scores increasing by 6-10% over three years (Hattie, 2023; DuFour & Eaker, 1998). Additionally, schools with high relational trust see improvements in reading and math scores, tripling the likelihood of success (Bryk & Schneider, 2002). Collaborative data analysis and inquiry further contribute to significant gains, with up to a 15% increase in proficiency standards (Hamilton et al., 2009). Moreover, innovative practices nurtured through collaboration enhance student engagement and academic performance by up to 12% (Stoll et al., 2006). These compelling data points highlight the need to explore calendars that prioritize regular

embedded collaborative time for teachers, creating a supportive, data-driven, and innovative culture that drives both teacher and student success.

**Key Sources**

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