Emma Eccles Jones College of Education & Human Services
Center for the School of the Future
UtahStateUniversity

Teacher Collaboration: Impacts on Student Learning and School Effectiveness

A Policy and Research Brief

August 2025

The purpose of the Center for the School of the Future is to promote empirically validated practices in public education systems and to encourage cooperative and research relationships between K-12 and higher education institutions.

The Context

Despite being surrounded by peers, teachers often work in isolation within the traditional "egg-shell classroom" model—separated by physical walls and independent responsibilities (Lortie, 1975). Smith and Scott (1990) observed, "One would expect that a profession dedicated to learning would be structured in such a way that its members would learn from each other. In this light, the isolation of teachers from other adults is a glaring anomaly" (p. 9).

Teacher collaboration addresses this isolation by encouraging educators to work together to solve instructional challenges. Research shows that collaboration enhances professional growth, improves student learning, and increases overall school effectiveness (Hargreaves, 2021; Ostovar-Nameghi & Sheikhahmadi, 2016). As a result, collaborative practices have gained renewed importance in education.

Collaboration exists on a continuum—from informal, loosely connected efforts to formal, structured, data-driven teams (Vangrieken et al., 2015). For example, informal collaboration might involve fifth-grade teachers co-developing science lessons based on state standards. In contrast, formal collaboration includes models such as Professional Learning Communities (PLCs), which regularly analyze student data and refine instruction with the express goal of improving achievement.

Sustained collaboration can lead to strong teacher as well as student outcomes. As Hattie (2012) noted, sustained collaboration leads to collective teacher efficacy (CTE), which is the shared belief among teachers in a school that together they can positively influence student outcomes, even the most difficult students. Hattie found that CTE has one of the most significant impacts on student achievement with an effect size of 1.57.

To better understand a 1.57 effect size, imagine a typical third-grade class of 25 students. Under traditional instruction and average levels of collective efficacy, approximately 11 students in a class of 25 typically reach proficiency on the end-of-year reading assessment. However, by implementing an instructional practice or school-wide strategy that raises collective efficacy (producing an effect size of 1.57) you may see 23 to 24 students reach proficiency, more than double the original number, a transformational shift in student achievement.

The Purpose

This brief examines:

- Four formal collaboration models.
- The impact of each model on student learning.
- Common barriers to collaboration.
- Solutions for improving collaboration.
- An example of effective collaboration from a Utah school district.

Teachers engage in both formal and informal collaboration, but research has largely focused on four formal models:

1. Professional Learning Communities (PLCs)
2. Co-Teaching
3. Peer Observation and Feedback
4. Lesson Study

Though each model varies in structure, they all share key elements: trust, vulnerability, and a shared belief that improving teaching improves learning. While informal collaboration can benefit teacher morale and school climate, formal collaboration, particularly when focused on student outcomes, has been shown to more reliably impact achievement (Reeves et al., 2017; Mora-Ruano et al., 2019).

Formal Collaboration Models and Their Impact on Student Learning

1. Professional Learning Communities (PLCs)

Description

PLCs are structured groups of teachers who meet regularly to improve instruction and student outcomes. These groups may be horizontal (same grade) or vertical (across grades) and often involve lesson planning, data analysis, and instructional reflection. PLCs may incorporate other collaboration models like peer observation and Lesson Study. For more information: *Professional Learning Communities Quick Start Guide* (Institute of Education Sciences) https://ies.ed.gov/rel-southwest/2025/01/facilitators-guide

Research on Student Learning

Lomos et al. (2011) found that PLC participation is linked to small to moderate gains in student achievement (effect size d = .25). Other studies show improved teacher satisfaction, instructional quality, and student growth (Cromey & Hanson, 2000).

2. Co-Teaching

Description

Co-teaching pairs two teachers—usually a general educator and a specialist—in the same classroom to share teaching responsibilities. This model supports diverse learners and promotes differentiated instruction through joint planning and shared accountability. For more information: *Including Students with Special Needs: A Practical Guide for Classroom Teachers* by Friend, M. & Bursuck, W. (2002). Allyn & Bacon.

Research on Student Learning

Studies show that co-teaching benefits student achievement when implemented with parity and collaboration (e.g., Friend et al., 2010). Success depends on training, shared goals, and planning time.

3. Peer Observation and Feedback

Description

In this model, teachers observe one another's instruction and offer formative, structured feedback. This encourages reflective practice and professional growth within a trusting school culture. For more information: *Peer Coaching That Works: The Power of Reflection and Feedback in Teacher Triad Teams*. Denver, CO: McREL International. https://files.eric.ed.gov/fulltext/ED588635.pdf

Research on Student Learning

Research showing the direct benefits of peer coaching on student achievement is limited, although benefits have been demonstrated for teacher self-efficacy, collaboration, and school climate (de la Iglesia et al., 2024).

4. Lesson Study

Description

Lesson Study is a collaborative process where teachers jointly plan, teach, observe, and refine a detailed lesson. This model emphasizes deep content knowledge and analysis of student thinking. For more information: *Lesson Study Participant Guide*

(Education Northwest)
https://educationnorthwest.org/sites/default/files/lessonstudy-participant-guide.pdf

Research on Student Learning

Lesson Study is associated with high achievement in Japan and improves teacher content knowledge and instructional design in U.S. contexts (Lewis et al., 2006).

Challenges That Limit Effective Teacher Collaboration

Barriers to collaboration are both organizational and personal. Organizational barriers include limited time, resources, and space (García-Martínez et al., 2021). When collaboration time overlaps with unrelated meetings, its instructional value diminishes.

Additionally, “contrived collegiality” arises when collaboration is mandated without genuine teacher input, leading to mistrust and ineffective implementation (Datnow, 2011).

Teachers may also hold personal reservations about collaboration. Some see collaboration as a threat to autonomy or worry about being judged when sharing data or being observed (Methlagl, 2022). These fears may stem from competitiveness or uncertainty about how to improve student performance (Datnow, 2011).

Solutions to Those Challenges

School leaders play a vital role in facilitating effective collaboration. Recommended strategies include:

- Scheduling dedicated collaboration time apart from faculty meetings.
- Sharing leadership responsibilities among teachers.
- Providing ongoing training and coaching.
- Fostering trust and relational capacity.
- Encouraging a growth mindset (Dweck, 2006).
- Creating flexible scheduling options (Cromey & Hanson, 2000; Datnow et al., 2006; García-Martínez et al., 2021).

A Utah Example: Logan City School District

Logan City School District (LCSD), where all elementary schools are Title I, has implemented daily teacher collaboration. Students are dismissed early to provide 45 minutes of dedicated collaboration time each day, in addition to regular prep periods.

Teams meet daily to review student data, plan lessons, and design interventions. They also receive two half-days per year for focused planning and data analysis. This real-time collaboration supports timely instructional decisions.

LCSD also uses cross-school peer observation in grades K–2, modeled after Lesson Study. School leaders and coaches actively participate, strengthening district-wide professional learning.

Results include significantly improved literacy scores, stronger instructional practices, improved teacher morale, and lower teacher turnover. One LCSD school received National Blue Ribbon recognition, and eleven teachers were recently honored as highly effective in high-poverty settings—up from three.

Conclusion

Teacher collaboration is consistently associated with high-performing schools. Goddard et al. (2007) found that collaboration correlates with higher student achievement, even after controlling for demographics.

At the same time, research has identified many indirect benefits of effective teacher collaboration including mutual trust, strong relationships, and school climate. These benefits indirectly affect student learning and should be considered alongside student learning.

How to Hold Effective PLC Meetings

- Establish a consistent meeting day and time.
- Assign an administrator, coach, or instructional leader to lead each meeting.
- Establish a common vision and specific goals for the PLC.
- Have a specific agenda or meeting template for each meeting.
- Focus each agenda on student learning.
- Begin and end each meeting on time.
- Assign one person to take and share notes of the meeting.

How to Promote and Support Formal Collaboration in Your School

Bolam et al. (2005) suggest the following tips for school leaders:

- Establish shared values and vision.
- Respond to unique school contexts.
- Be consistent and fair.
- Support bonding among staff.
- Encourage mutual support.
- Emphasize trust and respect.
- Model openness and a growth mindset.
- Facilitate networks and partnerships.
- Manage and support individual learning.
- Manage and support collective learning.

References

Bolam, R., McMahon, A., Stoll, L., Thomas, S., Wallace, M., Greenwood, A., Hawkey, K., Ingram, M., Atkinson, A., & Smith, M. (2005). *Creating and sustaining effective professional learning communities* (Research Report No. 637). Department for Education and Skills. https://dera.ioe.ac.uk/id/eprint/5622/1/RR637.pdf

Cromey, A., & Hanson, M. (2000). *An exploratory analysis of school-based student assessment systems* [Research report]. North Central Regional Educational Laboratory. https://files.eric.ed.gov/fulltext/ED452221.pdf

Datnow, A. (2011). Collaboration and contrived collegiality: Revisiting Hargreaves in the age of accountability. *Journal of Educational Change, 12*, 147–158. https://doi-org.dist.lib.usu.edu/10.1007/s10833-011-9154-1

Datnow, A., Park, V., & Wohlstetter, P. (2006). Achieving with data: How high-performing school systems use data to improve instruction for elementary students. Center on Educational Governance, University of Southern California. https://people.uncw.edu/kozloffm/AchievingWithData.pdf

de la Iglesia, B., Fortegy, D., & Duma, L. (2024). Peer feedback in teacher professional development: A systematic review. *Revista Española de Pedagogía*, *82*(288), 335-358. https://doi.org/10.22550/2174-0909.4044

Dweck, C. S. (2006). *Mindset: The new psychology of success*. Random House.

Friend, M., Cook, L., Hurley-Chamberlain, D., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. *Journal of Educational and Psychological Consultation*, *20*(1), 9-27. https://doi.org/10.1080/10474410903434380

References

García-Martínez, I., Montenegro-Rueda, M., Molina-Fernández, E., & Fernández-Batanero, J. M. (2021). Mapping teacher collaboration for school success. *School Effectiveness and School Improvement, 4,* 631-649. *https://doi.org/10.1080/09243453.2021.1925700*

Hattie, J. (2012). Visible learning for teaching: *Maximizing impact on learning*. Routledge/Taylor & Francis Group. https://doi.org/10.4324/9780203181522

Hargreaves, A. (2021). *Teacher collaboration*: *30 years of research on its nature, forms, limitations and effects*. Routledge.

Lewis, C., Perry, R., & Murata, A. (2006). How should research contribute to instructional improvement: The case of lesson study. *Educational Researcher*, *35*(3), 3–14. https://doi-org.dist.lib.usu.edu/10.3102/0013189X035003003

Lomos, C., Hofman, R. H., & Bosker, R. J. (2011). Professional communities and student achievement: A meta-analysis. *School Effectiveness and School Improvement*, *22*(2), 121-148. https://doi.org/10.1080/09243453.2010.550467

Lortie, D. C. (1975). *Schoolteacher*: *A sociological study*. University of Chicago Press.

Methlagl, M. (2022). Patterns of teacher collaboration, professional development, and teaching practices: A multiple correspondence analysis of TALIS 2018. *International Journal of Educational Research Open, 3*. https://doi.org/10.1016/j.ijedro.2022.100137

Mora-Ruano, J. G., Heine, J. H., & Gebhardt, M. (2019). Does teacher collaboration improve student achievement? Analysis of the German PISA 2012 sample. *Frontiers in Education, 4*, 1-12. https://doi.org/10.3389/feduc.2019.00085

Ostovar-Nameghi, S. A., & Sheikhahmadi, M. (2016). From teacher isolation to teacher collaboration: Theoretical perspectives and empirical findings. *English Language Teaching, 9*(5), 197-205. https://files.eric.ed.gov/fulltext/EJ1099601.pdf

Reeves, P. M., Pun, W. H., & Chung, K. S. (2017). Influence of teacher collaboration on job satisfaction and student achievement. *Teaching and Teacher Education, 67*, 227-236. https://doi.org/10.1016/j.tate.2017.06.016

Smith, S.C. and Scott, J.J. (1990). The collaborative school: A work environment for effective instruction. ERIC Clearing House on Educational Management. https://files.eric.ed.gov/fulltext/ED316918.pdf

Vangrieken, K., Dochy, F., Raes, E., & Kyndt, E. (2015). Teacher collaboration: A systematic review. *Educational Research Review, 15,* 17-40. https://doi.org/10.1016/j.edurev.2015.04.002

Acknowledgment

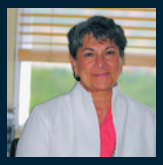
This policy brief is supported by funding from the Center for the School of the Future at Utah State University.

Parker Fawson
Director
Center for the School of the Future
Emma Eccles Jones Endowed Chair in Early Education

David E. Forbush
Associate Director
Center for the School of the Future

John Jeon
Learning Scientist
Center for the School of the Future

D. Ray Reutzel
Distinguished Research Fellow
Center for the School of the Future



Janice A. Dole
Distinguished Research Fellow
Center for the School of the Future

Saeed Moaveni
Distinguished Research Fellow
Center for the School of the Future

Reid Newey
Senior Fellow
Center for the School of the Future

Sam Jarman
Senior Fellow
Center for the School of the Future

Nissa Boman
Assistant
Center for the School of the Future

Kalie Chamberlain
Post-Doctoral Fellow
Center for the School of the Future

Jed Grunig
Graduate Assistant
Center for the School of the Future