



How can schools support academic success while fostering healthy social and emotional development?

PERTS worked with leading researchers¹ to develop Copilot, an advanced professional learning platform that helps educators create supportive conditions for learning and development. Copilot enables teachers to get rapid feedback from their students about how they are experiencing key classroom learning conditions (see below). It couples that feedback with best-practices for improving those conditions. New evidence suggests that Copilot enables teachers to systematically improve learning conditions and that better learning conditions promote higher and more equitable academic achievement.

- **Over 80% of teachers improved** one or more classroom learning conditions when they leveraged Copilot over multiple cycles of inquiry and action.
- Students who experienced positive learning conditions in a class were **30% more likely to earn an A or B** in that class, and those benefits were pronounced for students of color. For example, Black males who experienced positive learning conditions were almost 2x more likely to earn an A or B than those who did not.
- Better learning conditions also led to better social and emotional learning outcomes. When learning conditions improved, students were 86% more likely to experience a **higher sense of belonging**, 24% more likely to develop a **growth mindset**, and 2x more likely to report they “tried their very best” in class.



What learning conditions do teachers measure and improve with Copilot?

Research is clear:² Students are more motivated—and earn higher grades and test scores—when educators create an environment that helps students: feel valued and respected in the learning environment;³ understand how schoolwork is relevant to their own lives and goals;⁴ and recognize setbacks and constructive feedback as opportunities to grow.⁵ Copilot helps teachers easily measure these conditions, and it provides teachers with just-in-time recommendations for improving them.

In the words of Fremont Unified administrator Josh Maisel, “It’s a great tool. The survey is really asking the right questions and putting data in front of teachers that can be helpful.”

Teachers can improve learning conditions measurably & reliably

The vast majority of teachers who used Copilot over the 2018-19 school year successfully created more supportive conditions for learning—as rated by confidential, validated ratings from their students. By leveraging rapid student feedback and just-in-time best-practice recommendations, 92% of teachers improved at least one learning condition, and 65% successfully improved all measured learning conditions. Done the right way, even the act of collecting student feedback can enhance students’ sense that they are valued by their teachers. In the words of one student, “I think she cares what I think because she is asking us to take this survey about her teaching. If she didn't care what I had to say, she wouldn't be asking us to do this survey.”

When Chris Biddix saw the low test scores of his incoming math class, he decided to use Copilot to improve motivation and boost learning. A 10-minute survey revealed that his students weren't seeing math as relevant to their lives. Over the next 3 months, he workshopped evidence-based strategies for helping his students see the value in their work, and tracked his progress with pulse surveys. The share of his students who see math as relevant and meaningful grew by 26% points. Their motivation grew, and this class was “beating other classes in unit assessments [even though they started with the lowest math scores.]”
Read more Copilot case studies at perts.net/stories.

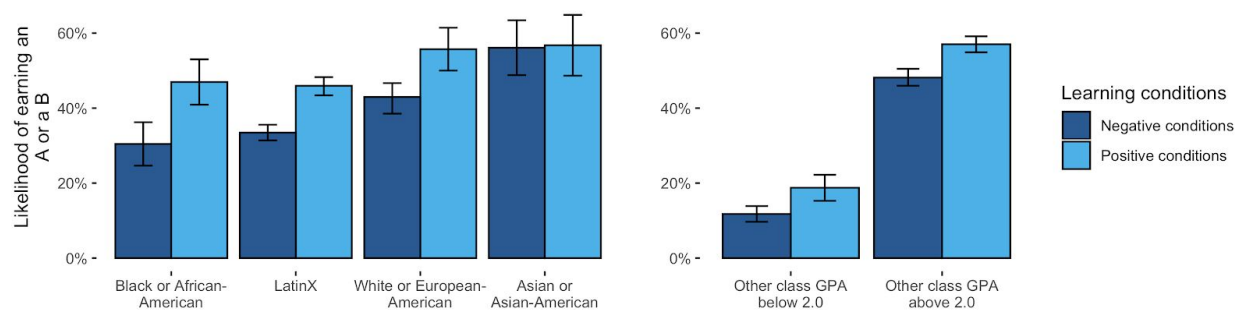


Learning conditions build student motivation, belonging, growth mindset

When teachers improved the learning conditions in their classes, their students became more motivated and more likely to experience good social and emotional outcomes. Students who reported learning conditions as positive in a given week were more than twice as likely to say they tried their very best on their schoolwork “almost all of the time” in that week. When learning conditions improved, students were 24% more likely to increase in growth mindset and 86% more likely to experience a stronger sense of belonging. This is important because research shows that a sense of belonging and growth mindset are both associated with stronger and more equitable achievement.⁹

Learning conditions are strong predictors of academic performance

In a sample of over 1,300 students, students reported on the learning conditions in a core class. These included their perceptions of teacher caring, their conviction that what they were learning was meaningful, and whether they received constructive feedback for learning. We compared students who experienced a class as positive (average “slightly agree” rating and higher) to those who rated it negatively (below “slightly agree”). Those who experienced the conditions as positive were 30% more likely to earn a grade of A or B in that class. This effect was pronounced among members of marginalized groups. For example, Black male students were nearly twice as likely to earn an A or B in a class when they experienced positive learning conditions in that class. This is encouraging evidence that improvements to learning conditions could translate into gains in students’ academic achievement, especially for the students positioned furthest from opportunity.



How can educators leverage Copilot to cultivate student success?

These early results suggest that the Copilot professional learning platform can help educators create more supportive and equitable learning conditions in their classrooms, with potentially powerful benefits to students’ academic achievement and social and emotional development. Even as PERTS continues to study and improve this innovative tool, we are proud to **offer Copilot for free** to all U.S. schools thanks to support from the Raikes, Overdeck, and Gates Foundations. To learn more, email support@perts.net.

About PERTS

The Project for Education Research That Scales (PERTS) is a non-profit research and development institute that translates insights from psychological science into cutting-edge tools, measures, and recommendations that educators anywhere can use to foster healthy and equitable academic engagement and success.



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Technical Supplement

For detailed results, sample characteristics, psychometrics, preregistration of key hypotheses, and other methodological information, see the working draft of the technical supplement at perms.net/ep-report-supplement.

Citation

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Endnotes

1. PERTS Copilot measures and recommendations were developed in collaboration with Stanford University Professors Carol Dweck and Greg Walton; University of Chicago Senior Research Associate Camille Farrington; and UC-Berkeley Assistant Professor Jason Okonofua.
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Also see citation in endnote #5 and Farrington citation in endnote #2.