

Nine Core Learning Conditions Measured with Calibrate

Elevate Grades 6-12 - School



Leverage student voice to improve the classroom conditions that catalyze learning

Research is clear: Students are more engaged and successful when they positively experience their learning environments. [PERTS Calibrate](https://perts.net/calibrate) measures students' perceptions of their learning conditions and provides practical recommendations for research-based instructional strategies that support the unique needs of each class. These insights can be used to strengthen classroom practices that boost student engagement and learning for all students.



UCHICAGO Consortium
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The Nine Learning Conditions



AFFIRMING IDENTITIES

Why it matters:

Students feel more connected to and motivated in classrooms that recognize and affirm their backgrounds and identities.

Survey questions:

- My teachers make sure different backgrounds and perspectives are valued and supported.
- In my classes, I see positive examples of people like me in the things we learn.

Response options: The statement above is true or mostly true about...*None of my classes, very few of my classes, about half of my classes, **most of my classes***, all of my classes**



FEEDBACK FOR GROWTH

Why it matters:

Students learn more effectively when their teachers set high expectations, recognize progress, and offer respectful, critical feedback to help students improve.

Survey questions:

- My teachers let me know they believe I can do well in class.
- In my classes, I get specific suggestions about how to improve my work.
- In my classes, it is more important to try than to get things right the first time.

Response options: The statement above is true or mostly true about...*None of my classes, very few of my classes, about half of my classes, **most of my classes***, all of my classes**



CLASSROOM COMMUNITY

Why it matters:

Students feel safe to engage and succeed in school when classroom environments encourage a sense of community and foster mutual support among classmates.

Survey questions:

- In my classes, we have lots of opportunities to interact with each other.
- My classes are welcoming to everyone.
- In my classes, I feel comfortable sharing my thoughts and opinions.

Response options: The statement above is true or mostly true about...*None of my classes, very few of my classes, about half of my classes, **most of my classes***, all of my classes**



LEARNING GOALS

Why it matters:

Students learn more effectively when it is clear to them what they are supposed to be learning and how it fits into the big ideas of that subject area.

Survey questions:

- In my classes, I know how the new things we're learning connect to what we've learned before.
- My teachers help me see my progress as I learn more.

Response options: The statement above is true or mostly true about...*None of my classes, very few of my classes, about half of my classes, **most of my classes***, all of my classes**



MEANINGFUL WORK

Why it matters:

Students are more motivated to learn when the work in class feels interesting and relevant to them.

Survey questions:

- In my classes, we do meaningful work, not busy work.
- What we learn in class is connected to real life.
- My teachers make what we're learning really interesting.

Response options: The statement above is true or mostly true about...*None of my classes, very few of my classes, about half of my classes, **most of my classes***, all of my classes**



SUPPORTIVE TEACHING

Why it matters:

Students learn more effectively and are more likely to feel valued when their teachers provide them with the instructional support to be successful.

Survey questions:

- My teachers regularly check in to make sure we understand the class material.
- My teachers explain things in different ways if we're confused.
- My teachers know my strengths and weaknesses in their classes.

Response options: The statement above is true or mostly true about...*None of my classes, very few of my classes, about half of my classes, **most of my classes***, all of my classes**



STUDENT VOICE

Why it matters:

Students take ownership of their learning and are more actively engaged in their schoolwork when they have choices, share their ideas, and feel heard.

Survey questions:

- In my classes, I have the opportunity to make choices about my work.
- In my classes, my ideas are taken seriously.
- My teachers respond to student suggestions to make class better.

Response options: The statement above is true or mostly true about...*None of my classes, very few of my classes, about half of my classes, **most of my classes***, all of my classes**



TEACHER CARING

Why it matters:

Students engage more deeply in their work when they feel their teacher likes and cares about them.

Survey questions:

- I feel like my teachers are glad that I am in their class.
- My teachers care about my life outside of school.
- My teachers treat me with respect.

Response options: The statement above is true or mostly true about...*None of my classes, very few of my classes, about half of my classes, **most of my classes***, all of my classes**

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WELL-ORGANIZED CLASS

Why it matters:

Students learn more effectively and are more motivated when teachers develop routines and systems that contribute to the smooth functioning of classrooms.

Survey questions:

- I feel like my classes are organized to help me do well.
- My teachers do a good job keeping track of and returning our work.
- In my classes, it's always clear what we're supposed to be doing.

Response options: The statement above is true or mostly true about...*None of my classes, very few of my classes, about half of my classes, **most of my classes***, **all of my classes****

Countless studies show that these nine learning conditions influence students' motivation and also their ability to engage and learn.

Review relevant research for each learning condition.



Understanding the Survey

- Calibrate helps educators measure students' perceptions of classroom learning conditions to catalyze engagement and learning.
- The survey is designed for students in grades 6–12.
- For each item, the following context is provided, "The statement above is true or mostly true about..." and students choose from the following response options: "none of my classes," "very few of my classes," "about half of my classes," "most of my classes," and "all of my classes."
- Calibrate reports show the percent of students who select "most of my classes" or "all of my classes," as noted above in *green with an asterisk**.
- By default, Calibrate measures four of the nine learning conditions on the previous pages: classroom community, meaningful work, student voice, and well-organized class. PERTS encourages educators to measure the four to five learning conditions that best align with their own goals.

[Learn how to customize the survey.](#)

Practices to Improve Learning Conditions

Calibrate provides insights into how students perceive their classrooms' learning conditions. The nine core [Learning Conditions Practice Guides](#) offer educators recommendations for research-based instructional strategies to improve the learning conditions that the Calibrate survey measures.

Explore the Practice Guides

 Affirming Identities	 Classroom Community	 Feedback for Growth
 Learning Goals	 Meaningful Work	 Student Voice
 Supportive Teaching	 Teacher Caring	 Well-Organized Class



Improve the Student Experience... and Student Outcomes

Calibrate is designed for educators to measure and build classroom conditions that catalyze engagement and learning. [Learn more about Calibrate.](#)

ACKNOWLEDGEMENTS

The Calibrate measures and guides were co-developed by PERTS and the Learning & Development Group (LDG) at the UChicago Consortium on School Research.

ABOUT LDG

The [Learning & Development Group](#) (LDG) at the UChicago Consortium on School Research conducts and translates academic research for an education audience. LDG leverages social connectivity to contribute to the broad national movement to transform public schools. LDG works with educational leaders, principals, teachers, and students, to identify how best to transform schools into joyous, intellectually challenging learning environments for young people.

ABOUT PERTS

The Project for Education Research That Scales (PERTS) is an edtech nonprofit founded in 2010 at Stanford University. PERTS equips educators to create excellent and equitable learning conditions—conditions that foster engagement and accelerate learning. To do so, PERTS develops, tests, and scales the impact of evidence-based solutions in collaboration with hundreds of partner organizations. Learn more about our work, our team, and our partners at www.perts.net/about.



Research About Learning Conditions

Numerous studies have shown that the nine core learning conditions below affect students' academic engagement and promote more equitable social, emotional, and/or academic outcomes. Below is relevant research for each learning condition.



AFFIRMING IDENTITIES

1. Dee, T. S., & Penner, E. K. (2017). The causal effects of cultural relevance: Evidence from an ethnic studies curriculum. *American Educational Research Journal*, 54(1), 127–166. <https://doi.org/10.3102/0002831216677002>
2. Gray, D., Hope, E. C., & Matthews, J. S. (2018). Black and belonging at school: A case for interpersonal, instructional, and institutional opportunity structures, *Educational Psychologist*, 53(2), 97–113. <https://doi.org/10.1080/00461520.2017.1421466>
3. Gonzalez, L., Chapman, S., & Battle, J. (2020). Mathematics identity and achievement among Black students. *School Science and Mathematics*. <https://doi.org/10.1111/ssm.12436>
4. Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance." *American Psychologist*, 52(6), 613–629. <https://doi.org/10.1037/0003-066X.52.6.613>
5. Steele, D. M., & Cohn-Vargas, B. (2013). *Identity safe classrooms, grades K–5: Places to belong and learn*. Corwin Press.
6. Walton, G. M., & Brady, S. T. (2017). The many questions of belonging. In A. J. Elliot, C. S. Dweck, & D. S. Yeager (Eds.), *Handbook of competence and motivation: Theory and application* (pp. 272–293). The Guilford Press.



CLASSROOM COMMUNITY

1. Brady, S. T., Cohen, G. L., Jarvis, S. N., & Walton, G. M. (2020). A brief social-belonging intervention in college improves adult outcomes for Black Americans. *Science Advances*, <https://doi.org/10.1126/sciadv.aay3689>
2. Boykin, A. W., Albury, A., Tyler, K. M., Hurley, E. A., Bailey, C. T., & Miller, O. A. (2005). Culture-based perceptions of academic achievement among low-income elementary students. *Cultural Diversity & Ethnic Minority Psychology*, 11(4), 339–350. <https://doi.org/10.1037/1099-9809.11.4.339>
3. Farrington, C. A. et al., (2012). Teaching adolescents to become learners. The role of noncognitive factors in shaping school performance: *A critical literature review*. Consortium on Chicago School Research. https://consortium.uchicago.edu/sites/default/files/2018-10/Noncognitive%20Report_0.pdf
4. Goyer, J. P., Cohen, G. L., Cook, J. E., Master, A., Apfel, N., Lee, W., Henderson, A. G., Reeves, S. L., Okonofua, J. A., & Walton, G. M. (2019). Targeted identity-safety interventions cause lasting reductions in discipline citations among negatively stereotyped boys. *Journal of Personality and Social Psychology*, 117(2), 229–259. <https://doi.org/10.1037/pspa0000152>
5. Marryshow, D., Hurley, E., Allen, B., Tyler, K., & Boykin, A. (2005). Impact of learning orientation on African American children's attitudes toward high-achieving peers. *The American Journal of Psychology*, 118(4), 603–618. <https://www.jstor.org/stable/30039088>
6. Romero, C. (2015). What we know about belonging from scientific research. Student Experiences Research Network. Retrieved from <http://studentexperiencenetwork.org/wp-content/uploads/2015/09/What-We-Know-About-Belonging.pdf>



FEEDBACK FOR GROWTH

1. Cimpian, A., Arce, H.-M. C., Markman, E. M., & Dweck, C. S. (2007). Subtle linguistic cues affect children's motivation. *Psychological Science*, 18(4), 314–316. <https://doi.org/10.1111/j.1467-9280.2007.01896.x>
2. Cohen, G. L., Steele, C. M., & Ross, L. D. (1999). The mentor's dilemma: Providing critical feedback across the racial divide. *Personality and Social Psychology Bulletin*, 25, 1302–1318. <https://doi.org/10.1177/0146167299258011>
3. Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology*, 75(1), 33–52. <https://doi.org/10.1037/0022-3514.75.1.33>
4. Yeager, David S., Purdie-Vaughns, V., Hooper, S. Y., & Cohen, G. L. (2017). Loss of institutional trust among racial and ethnic minority adolescents: A consequence of procedural injustice and a cause of life-span outcomes. *Child Development*. <https://doi.org/10.1111/cdev.12697>
5. Yeager, D. S., Purdie-Vaughns, V., Garcia, J., Apfel, N., Brzustoski, P., Master, A., Hessert, W. T., Williams, M. E., & Cohen, G. L. (2014). Breaking the cycle of mistrust: Wise interventions to provide critical feedback across the racial divide. *Journal of Experimental Psychology: General*, 143(2), 804–824. <https://doi.org/10.1037/a0033906>



LEARNING GOALS

1. Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology*, 25(5), 729–735. <https://doi.org/10.1037/0012-1649.25.5.729>
2. Cruickshank, D. R. (1985). Applying research on teacher clarity. *Journal of Teacher Education*, 36(2), 44–48. <https://doi.org/10.1177/002248718503600210>
3. Daniels, E. (2010). Creating motivating learning environments: What we can learn from researchers and students. *English Journal*, 100(1), 25–29.
4. Perrenoud, P. (1998). From formative evaluation to a controlled regulation of learning processes. Towards a wider conceptual field. *Assessment in Education: Principles, Policy & Practice*, 5(1), 85–102. <https://doi.org/10.1080/0969595980050105>
5. Tokuhama-Espinosa, T. (2014). *Making classrooms better: 50 practical applications of mind, brain, and education science*. WW Norton & Company.



MEANINGFUL WORK

1. Brophy, J. (2008). Developing students' appreciation for what is taught in school. *Educational Psychologist*, 43(3), 132–141. <https://doi.org/10.1080/00461520701756511>
2. Hill, P. L., Burrow, A. L., & Sumner, R. (2013). Addressing important questions in the field of adolescent purpose. *Child Development Perspectives*, 7(4), 232–236. <https://doi.org/10.1111/cdep.12048>
3. Hulleman, C. S., & Harackiewicz, J. M. (2009). Promoting interest and performance in high school science classes. *Science*, 326(5958), 1410–1412. <https://doi.org/10.1126/science.1177067>
4. Lepper, M. R., & Cordova, D. I. (1992). A desire to be taught: Instructional consequences of intrinsic motivation. *Motivation and Emotion*, 16(3), 187–208. <https://doi.org/10.1007/BF00991651>
5. Yeager, D. S., Paunesku, D., D'Mello, S., Spitzer, B. J., & Duckworth, A. L. (2014). Boring but important: A self-transcendent purpose for learning fosters academic self-regulation. *Journal of Personality and Social Psychology*, 107(4), 559–580. <https://doi.org/10.1037/a0037637>



STUDENT VOICE

1. Hart, R. A. (1997). *Children's participation: The theory and practice of involving young citizens in community development and environmental care*. Routledge.
2. Mitra, D. L. (2004). The significance of students: Can increasing "student voice" in schools lead to gains in youth development? *Teachers College Record*. <https://doi.org/10.1111/j.1467-9620.2004.00354.x>
3. Seale, J., Gibson, S., Haynes, J., & Potter, A. (2015). Power and resistance: Reflections on the rhetoric and reality of using participatory methods to promote student voice and engagement in higher education. *Journal of Further and Higher Education*, 39(4), 534–552. <https://doi.org/10.1080/0309877X.2014.938264>
4. Stefanou, C. R., Perencevich, K. C., DiCintio, M., & Turner, J. C. (2004). Supporting autonomy in the classroom: Ways teachers encourage student decision making and ownership. *Educational Psychologist*, 39(2), 97–110. https://doi.org/10.1207/s15326985ep3902_2



SUPPORTIVE TEACHING

1. Cushman, K. (2005). *Fires in the bathroom: Advice for teachers from high school students*. The New Press.
2. Furrer, C. J., Skinner, E. A., & Pitzer, J. R. (2014). The influence of teacher and peer relationships on students' classroom engagement and everyday motivational resilience. *National Society for the Study of Education*, 113(1), 101–123.
3. Hattie, J., & Yates, G. C. (2013). *Visible learning and the science of how we learn*. Routledge.
4. National Research Council. (2000). *How people learn: Brain, mind, experience, and school: Expanded edition*. National Academies Press.



TEACHER CARING

1. Brault, M.-C., Janosz, M., & Archambault, I. (2014). Effects of school composition and school climate on teacher expectations of students: A multilevel analysis. *Teaching and Teacher Education*, 44, 148–159. <https://doi.org/10.1016/j.tate.2014.08.008>
2. Murdock, T. B., & Miller, A. (2003). Teachers as sources of middle school students' motivational identity: Variable-centered and person-centered analytic approaches. *The Elementary School Journal*, 103(4), 383–399. <https://doi.org/10.1086/499732>
3. Okonofua, J. A., Paunesku, D., & Walton, G. M. (2016). Brief intervention to encourage empathic discipline cuts suspension rates in half among adolescents. *Proceedings of the National Academy of Sciences*, 113(19), 5221–5226. <https://doi.org/10.1073/pnas.1523698113>
4. Sakiz, G., Pape, S. J., & Hoy, A. W. (2012). Does perceived teacher affective support matter for middle school students in mathematics classrooms? *Journal of School Psychology*, 50(2), 235–255. <https://doi.org/10.1016/j.jsp.2011.10.005>
5. Wentzel, K. R. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology*, 89(3), 411–419. <https://doi.org/10.1037/0022-0663.89.3.411>



WELL-ORGANIZED CLASS

1. Bondie, R., & Zusho, A. (2019). *Differentiated instruction made practical: Engaging the extremes through classroom routines*. Routledge.
2. Cangelosi, J. S. (2013). *Classroom management strategies: Gaining and maintaining students' cooperation*. Wiley.
3. Furrer, C. J., Skinner, E. A., & Pitzer, J. R. (2014). The influence of teacher and peer relationships on students' classroom engagement and everyday motivational resilience. *National Society for the Study of Education*, 113(1), 101–123.
4. Pianta, R. C., Hamre, B. K., & Allen, J. P. (2012). Teacher-student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions. *In Handbook of research on student engagement* (pp. 365–386). Springer.