



BEST PRACTICES FOR STUDENT ENGAGEMENT

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INTRODUCTION

Effective student engagement is essential to promoting student achievement and ensuring that all students access learning activities.¹ Research identifies engagement as a major predictive factor for course grades and high school completion.² In this report, Hanover Research reviews best practices for increasing student engagement at both the classroom and school levels. This research is intended to support a member district in identifying program models and best practices to ensure engagement and access to core instruction for all students. This report includes the following sections:



- Section I provides an **overview of student engagement**, including definitions of student engagement and research on factors that influence student engagement.
- Section II discusses **classroom practices** that individual teachers can use to improve student engagement, including strategies to build positive relationships with students, enhance the relevance of academic content, and support positive learning mindsets.
- Section III discusses **school-level strategies** to improve student engagement, including administrative supports for student engagement and school-level interventions to improve student engagement.

RECOMMENDATIONS

Based on our findings, Hanover Research recommends that districts:

-  Support classroom teachers' ability to build student engagement by enhancing the relevance of content and forming positive relationships with students.
-  Support school leaders to facilitate school climates that promote student engagement by providing access to evidence-based strategies and programs such as Check and Connect and First Things First, among others.
-  Evaluate and select professional development programs and resources to support teachers and school leaders in supporting student engagement.

KEY FINDINGS

-  **Although definitions of student engagement vary, researchers generally agree that engagement encompasses the three domains of behavioral, emotional, and cognitive engagement.** Strategies to improve student engagement should address all three domains, as each domain is essential for learning. Behavioral engagement is essential for students to put forth effort towards academic work, while cognitive engagement is essential for students to learn academic knowledge and skills through participation in learning tasks. Emotional engagement facilitates students' focus on academic content.
-  **Although some factors which influence student engagement are beyond the control of schools, schools can take steps to improve student engagement.** Classroom engagement reflects the interactions among students, the teacher, and academic content. Students' interaction with academic content determines relevance, which may include relevance to current interests, individual identity, or long-term goals. Students' interactions with teachers determine the quality

¹ Allensworth, E.M. et al. "Supporting Social, Emotional, & Academic Development: Research Implications for Educators. Research Synthesis." University of Chicago Consortium on School Research, October 2018. p. 3.
https://eric.ed.gov/?q=student+engagement&ft=on&ff1=subElementary+Secondary+Education&ff2=dySince_2015&id=ED593604

² Ibid., p. 5.

of classroom relationships and their perceptions of teachers' competence to deliver subject matter.



Classroom engagement requires positive relationships between students and teachers. Teachers build positive relationships with students by demonstrating that they care about students, communicate well with students, and provide academic and social-emotional support to students. Teachers should use culturally competent practices to promote a classroom environment of mutual respect.



Engagement with academic content requires students to identify content as personally meaningful. Teachers can enhance content relevance by highlighting the importance of academic content for students' current interests, future goals, and personal identities. Teachers can also use inquiry-based instructional methods such as project-based or problem-based learning that facilitate student choice and content relevance.



Teachers can increase student engagement by facilitating positive learning mindsets. Student mindsets, including growth mindsets and intrinsic motivation, contribute to resilience and motivation to engage in academic tasks. Teachers can develop these mindsets through the classroom conditions they create and through their messaging to students.



School leaders should work with students and teachers to develop collective leadership capacity and create a positive school climate. Research finds that an authoritative school climate which combines strict but fair discipline with support for students improves student engagement outcomes. Schools can also build students' sense of connectedness by implementing evidence-based school-level interventions such as Check and Connect, First Things First, and Dropout Prevention.

SECTION I: OVERVIEW OF STUDENT ENGAGEMENT

In this section, Hanover Research provides a general overview of student engagement. This section begins by defining student engagement and identifying core domains of student engagement before reviewing factors that promote or inhibit student engagement.

DEFINING STUDENT ENGAGEMENT

Researchers vary in their definitions of student engagement. Some researchers exclusively rely on behavioral indicators of engagement, such as exerting effort towards learning tasks, while others incorporate dispositional indicators such as curiosity and passion.³ A review of literature on student engagement published by the National Dropout Prevention Center/Network at Clemson University identifies the trends in definitions of student engagement listed in Figure 1.1.

Figure 1.1: Trends in Definitions of Student Engagement

Sustained energy and commitment to achieve goals is exhibited for the purpose of personal growth rather than for a measure of student achievement or other external outcome.

Students who are engaged continue performing a task until the desired outcome is achieved, not just until the task is completed.

Engaged students demonstrate a willingness to persist even in the face of obstacles.

Positive emotions are exhibited during the learning process when students are meaningfully engaged.

Student engagement happens within the context of a supportive environment.

Source: National Dropout Prevention Center/Network⁴

Although definitions of student engagement vary, researchers generally agree that engagement incorporates the domains shown in Figure 1.2 – behavioral, emotional, and cognitive engagement.⁵ Engagement strategies should address each domain, as each domain is essential for the learning process. Behavioral engagement is essential for students to put forth effort towards academic work, while cognitive engagement is essential for students to learn academic knowledge and skills through participation in learning tasks. Emotional engagement facilitates students' focus on academic content.⁶

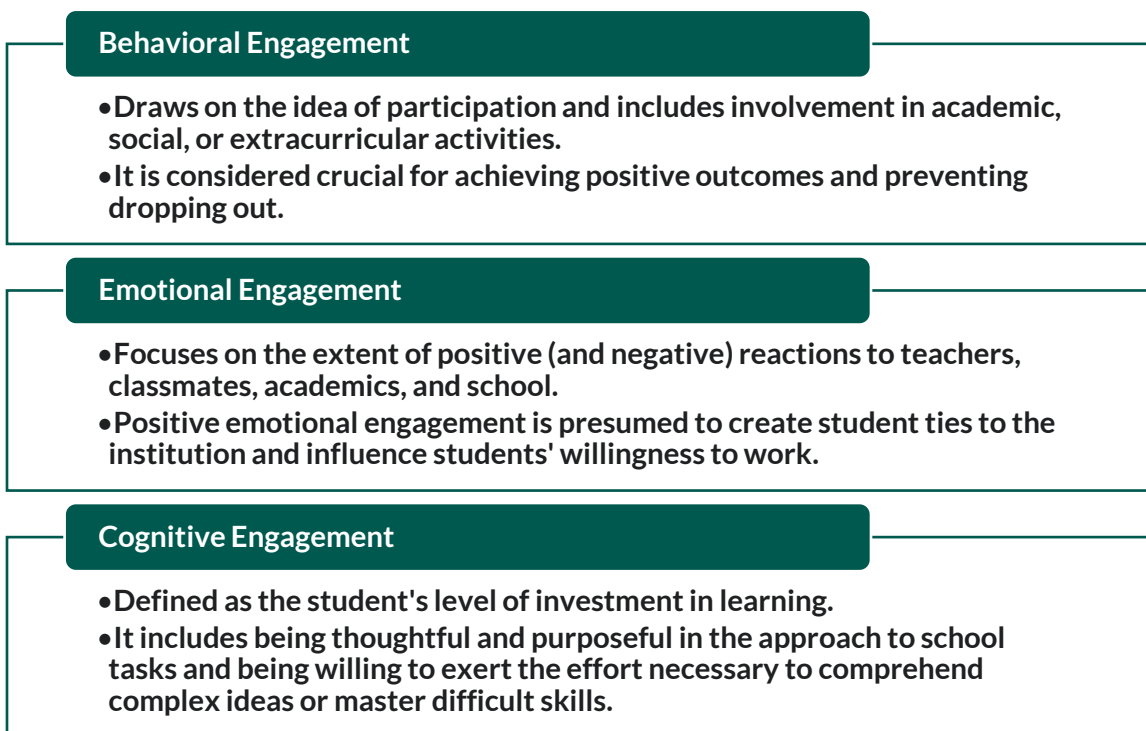
³ Dary, T., T. Pickeral, R. Shumer, et al. "Weaving Student Engagement into the Core Practices of Schools." National Dropout Prevention Center/Network at Clemson University, 2016. p. 5. <http://dropoutprevention.org/wp-content/uploads/2016/09/student-engagement-2016-09.pdf>

⁴ Chart contents taken verbatim from: Ibid., pp. 5–6.

⁵ Fredricks, J. et al. "Measuring Student Engagement in Upper Elementary through High School: A Description of 21 Instruments." Regional Educational Laboratory Southeast, 2011. p. 1. https://ies.ed.gov/ncee/edlabs/regions/southeast/pdf/rel_2011098.pdf

⁶ Allensworth et al., Op. cit., p. 3.

Figure 1.2: Domains of Student Engagement



Source: Regional Educational Laboratory Southeast⁷

Student engagement is a major challenge in many schools. Disengagement often results in absenteeism or misbehavior, which prevents students from accessing course content and creates classroom management challenges for teachers. Disengaged students are also unlikely to put forth effort in learning tasks.⁸ Although most research examines student engagement in the context of low-achieving schools, a 2013 survey of students in high-achieving schools finds a correlation between low self-reported engagement and higher levels of stress, suggesting that disengagement can carry negative consequences for students' mental health.⁹ In the following subsection, Hanover Research reviews student and school factors identified in the secondary literature as influencing student engagement.

FACTORS INFLUENCING STUDENT ENGAGEMENT

Multiple in-school and out-of-school factors influence engagement for individual students.¹⁰ Figure 1.3 shows key influences on student engagement identified by the University of Chicago Consortium on School Research (UChicago Consortium). School and district leaders can directly influence school culture by setting high expectations for collaboration, positive cultures of support, and maintaining a focus on academics. Although school districts have a less direct influence on family resources, the UChicago Consortium recommends that teachers reach out to students and their families to identify out-of-school challenges to engagement.¹¹ Hanover Research reviews classroom and school design practices to support student engagement in Sections II and III of this report.

⁷ Chart contents adapted from: Fredricks et al., Op. cit., p. 2.

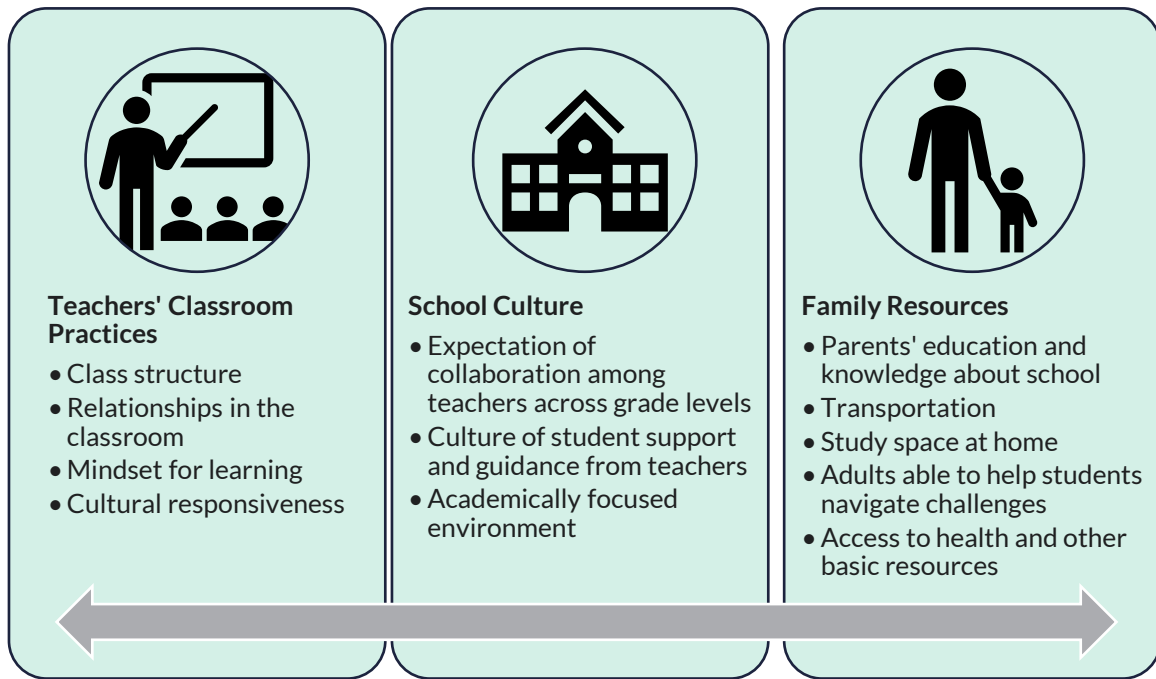
⁸ Allensworth et al., Op. cit., pp. 3–4.

⁹ Conner, J. and D. Pope. "Not Just Robo-Students: Why Full Engagement Matters and How Schools Can Promote It." *Journal of Youth & Adolescence*, 42:9, September 2013. p. 1426. Accessed via EBSCOhost

¹⁰ Allensworth et al., Op. cit., p. 6.

¹¹ Allensworth et al., Op. cit., pp. 6–7.

Figure 1.3: Key Influences on Student Engagement



Source: The University of Chicago Consortium on School Research¹²

According to the accrediting organization AdvancED, student engagement requires the key elements shown in Figure 1.4.

Figure 1.4: Key Elements for Student Engagement



Source: AdvancED¹³

Research also finds that the structure of schools causes increased engagement for academically successful students and disengagement for unsuccessful students. This pattern may result in a cumulative disengagement effect in which unsuccessful students become disengaged and continue to experience academic failure as a result. Teachers serving large populations of students with a history of academic failures may face particularly strong barriers to engagement.¹⁴

Overall, student engagement typically declines with age. Figure 1.5 shows mean student engagement, on a five-point scale, by grade level for Grades 5-12. This scale reflects findings from seven items of a national

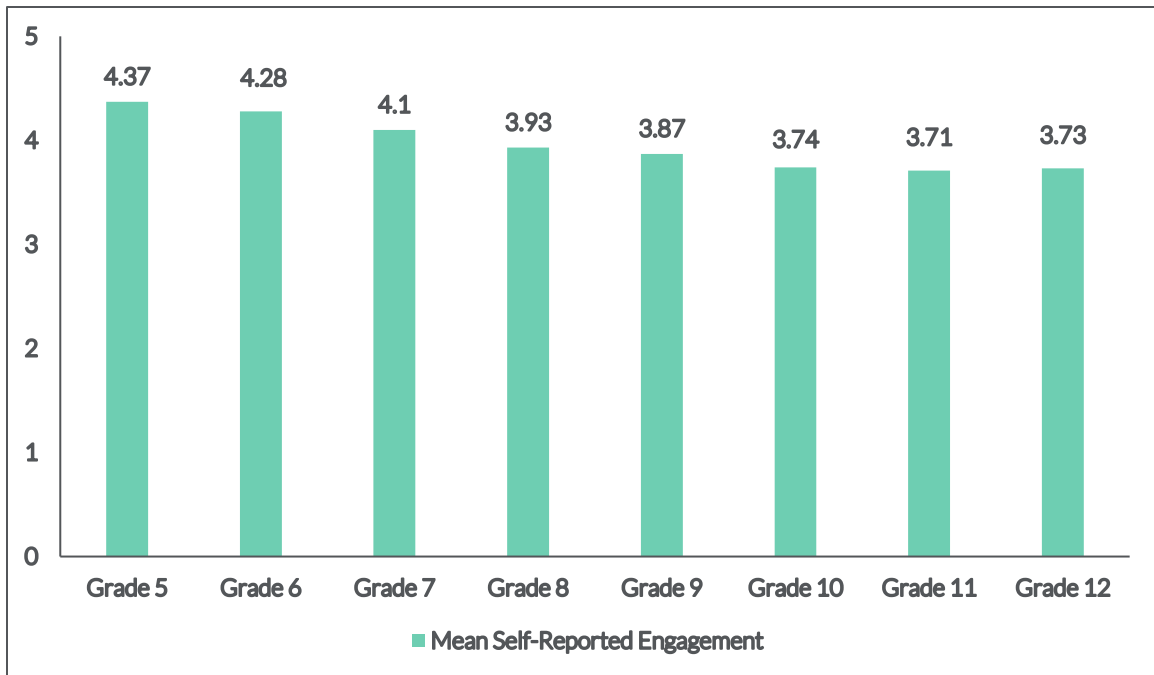
¹² Chart synthesized from content in: Ibid., p. 6; [2] Rosenkranz, T. et al. (2014). "Free to fail or on-track to college: Why grades drop when students enter high school and what adults can do about it. The University of Chicago Consortium on Chicago School Research. April, 2104. <https://consortium.uchicago.edu/sites/default/files/2018-10/FoF%20Why%20Grades%20Drop.pdf>

¹³ Chart contents taken verbatim from: Dary, T., T. Pickeral, R. Schumer, et al. "Weaving Key Elements of Student Engagement into the Fabric of Schools." AdvancED, Fall 2017. <https://www.advanc-ed.org/source/weaving-key-elements-student-engagement-fabric-schools>

¹⁴ Allensworth et al., Op. cit., p. 4.

student survey conducted by Gallup in 2014. These items address students' relationships with peers and teachers, feelings of competence at school, and the importance attached to schoolwork.¹⁵

Figure 1.5: Mean Student-Reported Engagement by Grade Level



Source: Gallup¹⁶

¹⁵ "Gallup Student Poll 2014 U.S. Overall Report." Gallup, Fall 2014. p. 3. <https://www.gallup.com/services/180029/gallup-student-poll-2014-overall-report.aspx>

¹⁶ Chart contents obtained through: Ibid.

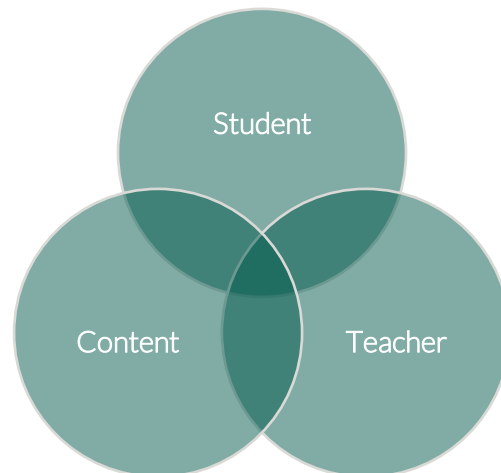
SECTION II: CLASSROOM PRACTICES TO SUPPORT STUDENT ENGAGEMENT

In this section, Hanover Research reviews classroom practices that individual teachers can use to support engagement. This section begins with a summary of classroom engagement outlining the interactions within classrooms that promote engagement. This section goes on to discuss strategies teachers can use to build positive relationships with students and increase content relevance before discussing teaching strategies that build positive learning mindsets.

SUMMARY OF CLASSROOM ENGAGEMENT

Improving student engagement outcomes requires teachers to prioritize engagement in their design and delivery of instruction.¹⁷ Teachers should proactively work to engage all students in completing rigorous academic work.¹⁸ Student engagement at the classroom level reflects the interaction of individual student factors with instructional content and teacher relationships, as shown in Figure 2.1. Students' interaction with academic content determines relevance, which may include relevance to current interests, individual identity, or long-term goals. Students' interactions with teachers determine the quality of classroom relationships and their perceptions of teachers' competence to deliver subject matter.¹⁹

Figure 2.1: Student Engagement Core Model



Source: Teachers College Record²⁰

RELATIONSHIPS

Teachers should work to develop positive relationships with individual students and develop a classroom climate that is welcoming for all students.²¹ Building positive relationships is essential to promoting students' social-emotional development and motivating students to succeed academically.²² Students who perceive

¹⁷ Ibid., p. 4.

¹⁸ Ibid.

¹⁹ Bundick, M.J. et al. "Promoting Student Engagement in the Classroom." *Teachers College Record*, 116:4, 2014. pp. 6–8.
<https://eric.ed.gov/?id=EJ1020319>

²⁰ Chart taken verbatim from: Ibid., p. 6.

²¹ "The Engagement Gap: A Report on the Spring 2016 ASCD Whole Child Symposium." ASCD, Spring 2016. p. 17.
<http://www.ascd.org/ASCD/pdf/siteASCD/wholechild/spring2016wcsreport.pdf>

²² Allensworth et al., Op. cit., p. 2.

teachers as uncaring or hostile are likely to disengage from schoolwork and may engage in disruptive behaviors, while the same students are likely to put forth increased effort for teachers they perceive as caring and supportive.²³

Empirical research confirms the importance of positive student-teacher relationships for student engagement. For example, a 2015 survey of middle grades students finds a significant correlation between perceived teacher support and feelings of belonging at school.²⁴ A 2017 meta-analysis which examines 189 previous empirical studies of student engagement finds a significant correlation between positive student-teacher relationships and academic engagement. This correlation is particularly strong for students in the elementary grades and appears to influence academic achievement.²⁵

A 2016 study which studies engagement by observing student activities during the school day finds that engagement increases when students interact with teachers but decreases when students are alone or interacting with peers.²⁶ A substantial body of research finds that student-teacher interactions which provided opportunities for all students to respond during instruction improve overall student engagement.²⁷ Teachers can provide all students with opportunities to respond by using the high-active student response (ASR) strategies listed in Figure 2.2.²⁸

Figure 2.2: High-ASR Strategies



Source: Center on Innovations in Learning, Temple University²⁹

Positive relationships require the student perceptions listed in Figure 2.3. These perceptions reflect teachers' communication of caring and support for students. Teachers can demonstrate caring in a variety of ways, including their attitudes toward teaching and an atmosphere of mutual respect between teachers and students.³⁰

²³ Brooks, R., S. Brooks, and S. Goldstein. "The Power of Mindsets: Nurturing Student Engagement, Motivation, and Resilience in Students." In *Handbook of Research on Student Engagement*, edited by S.L. Christenson, A.L. Reschly, and C. Wylie, Springer, 2012. pp. 4–5.

<https://www.valleycollaborative.org/cms/lib/MA01923105/Centricity/Domain/4/Brooks%20Student%20Engagement%20Chapter%20.pdf>

²⁴ Kiefer, S.M., K.M. Alley, and C.R. Ellerbrock. "Teacher and Peer Support for Young Adolescents' Motivation, Engagement, and School Belonging." *RMLE Online: Research in Middle Level Education*, 38:8, 2015. p. 9.

<https://eric.ed.gov/?q=peer+support+school&pr=on&ft=on&id=EJ1074877>

²⁵ Roorda, D.L. et al. "Affective Teacher-Student Relationships and Students' Engagement and Achievement: A Meta-Analytic Update and Test of the Mediating Role of Engagement." *School Psychology Review*, 46:3, September 2017. p. 239. Accessed via EBSCOhost

²⁶ Nguyen, T.D., M. Cannata, and J. Miller. "Understanding Student Behavioral Engagement: Importance of Student Interaction with Peers and Teachers." *The Journal of Educational Research*, 2016. p. 8.

https://eric.ed.gov/?q=classroom+engagement+peer&ft=on&ff1=dtysince_2015&id=ED578739

²⁷ Tincani, M. and J.S. Twyman. "Enhancing Engagement through Active Student Response." Center on Innovations in Learning, Temple University, 2016. p. 2.

https://eric.ed.gov/?q=classroom+engagement+peer&ft=on&ff1=dtysince_2015&pg=2&id=ED568178

²⁸ *Ibid.*, p. 5.

²⁹ Chart contents taken verbatim from: *Ibid.*, p. 4.

³⁰ Bundick et al., *Op. cit.*, p. 9.

Figure 2.3: Student Perceptions for Positive Relationships with Teachers

Their teacher cares about them

Their teacher communicates well with them

Their teacher provides them with academic and social emotional support

Source: *Teachers College Record*³¹

Building positive relationships requires teachers to focus on students' social-emotional needs, in addition to academic content.³² A statewide survey of students in Delaware finds a positive association between schoolwide support for social-emotional learning and students' self-reported levels of engagement across grade levels. The authors suggest that students who receive support for social-emotional learning from classroom teachers form more positive relationships with both teachers and peers, contributing to improvements in engagement and school climate.³³ The New Teacher Center recommends that classrooms use the Optimal Learning Environment framework shown in Figure 2.4

Figure 2.4: New Teacher Center Optimal Learning Framework for Student Engagement

Create Emotionally, Intellectually, and Physically Safe Environments

- Positive relationships that are kind, caring, and respectful
- Self-awareness and healthy expression of emotions
- Expression of reasoned thoughts and ideas
- Focus on effort, supported risk-taking, and growth
- Co-created procedures, routines, and classroom design that support safe and engaged interactions

Provide Equitable, Culturally Responsive, and Rigorous Curriculum and Instruction

- Relevant, rigorous, grade-appropriate content
- Inclusive community where all aspects of diversity and learner variability are understood, expected, and welcomed
- Learner agency with feedback and opportunities for self-directed learning
- Curiosity to seek others' perspectives

Meet the Needs of Diverse Learners

- Individual strengths leveraged to support academic, social, and emotional growth
- Multiple pathways to learn and demonstrate learning
- Learners supported in productive struggle
- Scaffolded instruction to meet needs of diverse learners

Source: New Teacher Center³⁴

³¹ Chart contents taken nearly verbatim with minor alterations to wording from: *Ibid.*, p. 8.

³² Butler, A.M. "Meeting Students' Emotional Needs Is Not in the Standards, So Why Bother?" *Reading Teacher*, 70:3, December 11, 2016. p. 371. Accessed via EBSCOhost

³³ Yang, C. et al. "Multilevel Associations Between School-Wide Social-Emotional Learning Approach and Student Engagement Across Elementary, Middle, and High Schools." *School Psychology Review*, 47:1, March 2018. p. 57. Accessed via EBSCOhost

³⁴ Chart contents taken verbatim from: "Optimal Learning Environment." New Teacher Center. https://newteachercenter.org/wp-content/uploads/OLEFramework_1703_fulltext_prf3.pdf

Teachers can improve the quality of their relationships with students by demonstrating empathy for students. Soliciting student feedback and input on instructional strategies helps teachers demonstrate empathy and identify other strategies to improve engagement.³⁵ Teachers should approach students with a strengths-based mindset that identifies students' areas of competence and builds on these areas in a manner that is responsive to students' preferences and goals.³⁶

CULTURALLY COMPETENT TEACHING

Culturally competent teaching is essential to create an environment of mutual respect that facilitates positive student-teacher relationships.³⁷ A 2018 study drawing on in-depth interviews with 12 male African American students finds that participants identify culturally relevant teaching practices as a key factor in the development of positive student-teacher relationships.³⁸ Culturally incompetent teaching can contribute to inequities in student engagement for students from under-supported cultural backgrounds. For example, a 2015 survey of students in an anonymous New York middle school finds that white students reported significantly higher levels of perceived safety at school and significantly more positive relationships with teachers than African American students.³⁹ Classroom teachers should exercise the key skills for cultural competence summarized in Figure 2.5.⁴⁰

Figure 2.5: Key Skills for Cultural Competence

Valuing Diversity

- Accepting and respecting different cultural backgrounds and customs, different ways of communicating, and different traditions and values.

Being Culturally Self-Aware

- Understanding that educators' own cultures—all of their experiences, background, knowledge, skills, beliefs, values, and interests—shape their sense of who they are, where they fit into their family, school, community, and society, and how they interact with students.

Understanding the Dynamics of Cultural Interactions

- Knowing that there are many factors that can affect interactions across cultures, including historical cultural experiences and relationships between cultures in a local community.

Institutionalizing Cultural Knowledge and Adapting to Diversity

- Designing educational services based on an understanding of students' cultures and institutionalizing that knowledge so that educators, and the learning environments they work in, can adapt to and better serve diverse populations.

Source: National Education Association⁴¹

³⁵ Brooks, Brooks, and Goldstein, Op. cit., pp. 18–19.

³⁶ Ibid., p. 21.

³⁷ "Why Cultural Competence?" National Education Association. <http://www.nea.org//home/39783.htm>

³⁸ Woodward, B. "Centering the Voice of Black Male Urban High School Students on Effective Student-Teacher Classroom Relationships." *Journal of Urban Learning, Teaching, and Research*, 14, 2018. p. 69. https://eric.ed.gov/?q=teacher+relationship&ft=on&ff1=dySince_2015&id=EJ1195958

³⁹ Mester, D.C. et al. "Personal Safety and Teacher/Student Relationships Viewed through Black/White Framework in a Suburban Middle School, an Exploratory Study." *Journal for Leadership and Instruction*, 14:1, 2015. p. 17. https://eric.ed.gov/?q=teacher+relationship&ft=on&ff1=dySince_2015&pg=2&id=EJ1080683

⁴⁰ Skiba, R. et al. "Teaching the Social Curriculum: Classroom Management as Behavioral Instruction." *Theory into Practice*, 55:2, Spring 2016. p. 124. Accessed via EBSCOhost

⁴¹ Chart contents taken verbatim from: "Promoting Educators' Cultural Competence to Better Serve Culturally Diverse Students." National Education Association, 2008. p. 1. http://www.nea.org/assets/docs/PB13_CulturalCompetence08.pdf

CONTENT RELEVANCE

Engagement requires students to identify content as personally meaningful. Meaningful academic content supports intrinsic motivation and increases students' willingness to persevere through difficult learning tasks.⁴² To provide engaging instruction, teachers should understand students' backgrounds and interests and incorporate student voice into instruction.⁴³ Figure 2.6 shows instructional practices recommended by the UChicago Consortium to promote student engagement in academic instruction.

Figure 2.6: Practices to Promote Student Engagement in Academic Instruction

Student-centered practices, where students are actively working during class on interactive lessons, are most effective for learning

Instruction needs to build off of students' current knowledge and skills, which may differ among students in the classroom

Students and teachers need more support when work becomes more challenging

Source: The University of Chicago Consortium on School Research⁴⁴

Teachers should provide students with sufficient support to master rigorous academic content. A 2017 study of 104 high school students finds a significant correlation between the supportiveness of the classroom environment and student engagement. In particular, this study finds strong correlations between engagement and positive relationships between students and teachers and learning environments that respond to students' backgrounds and needs. However, the study does not find a significant correlation between challenging instruction and student engagement, leading the authors to conclude that "environmental support is likely to be essential especially when environmental challenge is present or high," and that increasing instructional rigor without increasing support is unlikely to improve student engagement.⁴⁵

Teachers can also enhance content relevance by highlighting the intrinsic relevance of academic content to issues of concern to students. Figure 2.7 shows aspects of relevance for academic content. Instruction that connects academic content to one or more of these aspects is likely to increase student engagement.⁴⁶ Teachers can use their knowledge of students' interests, goals, and backgrounds to identify connections to academic content. Incorporating elements of student choice into learning activities can also increase content relevance. For example, teachers can provide students with a choice of standards-aligned reading assignments that reflect individual interests, goals, and identity.⁴⁷

⁴² Wolpert-Gowern, H. "Effective Engagement Focuses on Getting Students to Care." *NEA Today*, February 5, 2019. <http://neatoday.org/2019/02/05/effective-engagement-focuses-on-getting-students-to-care/>

⁴³ "The Engagement Gap: A Report on the Spring 2016 ASCD Whole Child Symposium," Op. cit., pp. 11–12.

⁴⁴ Chart contents taken verbatim from: Allensworth et al., Op. cit., pp. 10–11.

⁴⁵ Shernoff, D.J., E.A. Ruzek, and S. Sinha. "The Influence of the High School Classroom Environment on Learning as Mediated by Student Engagement." *School Psychology International*, 38:2, April 1, 2017. pp. 206, 210. <https://doi.org/10.1177/0143034316666413>

⁴⁶ Bundick et al., Op. cit., p. 7.

⁴⁷ Ibid., p. 9.

Figure 2.7: Aspects of Relevance for Academic Content



Source: *Teachers College Record*⁴⁸

Teachers can increase the relevance of academic content by incorporating elements of choice into learning experiences and using inquiry-based instructional strategies that connect learning to students' lives outside of class and encourage students to take responsibility for learning.⁴⁹ Incorporating elements of choice into assignments builds autonomy and encourages students to assume ownership of the learning process.⁵⁰

Figure 2.8: Elements of Student Choice in Learning Assignments

Choice in Content	Choice in Product	Choice in Process
<ul style="list-style-type: none"> • Broad topics are provided by teachers; students can narrow or specify their topic within the broader one. • Students select texts and topics 	<ul style="list-style-type: none"> • Students are given a choice of how they will present their learning: genre, structure, medium 	<ul style="list-style-type: none"> • Students are given freedom to design their course of action and sequence their steps as they work on an assignment • Students may work alone or with their peers • Students manage their timelines and deliverables, with teacher support as needed

Source: *Principal*⁵¹

PROJECT-BASED AND PROBLEM-BASED LEARNING

Many schools use project-based or problem-based learning (PBL) to facilitate inquiry and improve engagement. PBL incorporates elements associated with student engagement in secondary research, including elements of student choice and a connection to students' lives outside the classroom.⁵² The Buck Institute for Education (BIE), a nonprofit organization that advocates for PBL, defines PBL as “a teaching method in which students gain knowledge and skills by working for an extended period to investigate and respond to an authentic, engaging, and complex question, problem, or challenge.”⁵³ The BIE also establishes standards for high-quality PBL, summarized in Figure 2.9.

⁴⁸ Chart contents taken nearly verbatim with minor changes to wording from: *Ibid.*, p. 7.

⁴⁹ *Ibid.*, p. 10.

⁵⁰ Dabrowski, J. and T.R. Marshall. “Choice & Relevancy: Autonomy and Personalization in Assignments Help Motivate and Engage Students.” *Principal*, 98:3, February 1, 2019. p. 12. Accessed via EBSCOhost

⁵¹ Chart contents taken verbatim from: *Ibid.*

⁵² Wolpert-Govern, Op. cit.

⁵³ “What Is PBL?” Buck Institute for Education. <https://www.pblworks.org/what-is-pbl>

Figure 2.9: Essential Elements and Practices for High-Quality PBL

Project Design Elements	Teaching Practices
<ul style="list-style-type: none"> • A Challenging Problem or Question • Sustained Inquiry • Authenticity • Student Voice and Choice • Reflection • Public Product 	<ul style="list-style-type: none"> • Design and Plan • Align to Standards • Build the Culture • Manage Activities • Scaffold Student Learning • Assess Student Learning • Engage and Coach

Source: Buck Institute for Education⁵⁴

Although high-quality research examining the outcomes of PBL is limited, a 2017 literature review finds some evidence that PBL positively affects interpersonal and intrapersonal outcomes associated with student engagement, including positive attitudes towards learning. This review also finds positive effects of PBL on student attendance, which the authors suggest can be taken to indicate a positive effect on engagement indirectly.⁵⁵

LEARNING MINDSETS

Teachers can increase student engagement by facilitating positive learning mindsets.⁵⁶ Student mindsets contribute to resilience, positive relationships with teachers, and motivation to engage in academic tasks.⁵⁷ In particular, the UChicago Consortium finds that four student beliefs, listed in Figure 2.10, support student engagement and academic achievement.⁵⁸ Other research suggests that intrinsic motivation, the pursuit of learning objectives for personal growth rather than extrinsic rewards, supports persistence and emotional engagement with learning tasks.⁵⁹

Figure 2.10: Student Beliefs to Facilitate Classroom Engagement



Source: The University of Chicago Consortium on School Research⁶⁰

Although student mindsets reflect a variety of influences, teachers can create classroom conditions that facilitate mindsets conducive to academic achievement.⁶¹ The messages conveyed by teachers to students

⁵⁴ Chart contents taken verbatim from: Ibid.

⁵⁵ Condliffe, B. "Project-Based Learning: A Literature Review." MDRC, October 12, 2017. pp. 41–42.

⁵⁶ Allensworth et al., Op. cit., p. 13.

⁵⁷ Brooks, Brooks, and Goldstein, Op. cit., pp. 5–7.

⁵⁸ Allensworth et al., Op. cit., p. 13.

⁵⁹ Brooks, Brooks, and Goldstein, Op. cit., pp. 7–10.

⁶⁰ Chart contents adapted from: Allensworth et al., Op. cit., p. 13.

⁶¹ Ibid.

can build or undermine positive learning mindsets.⁶² Teachers can develop growth mindsets by modeling metacognitive skills, building students' confidence in response to setbacks, coaching students, and communicating positive mindsets through personal messaging to students.⁶³ The UChicago Consortium's review of the available research on learning mindsets finds that the classroom strategies listed in Figure 2.11 can support the development of positive learning mindsets.

Figure 2.11: Strategies to Develop Positive Learning Mindsets

Setting predictable norms and routines that support respectful student and teacher interactions in the classroom

Sending clear messages to students about the nature and purpose of learning and the role of mistakes in the learning process

Explicitly connecting new material to students' prior knowledge

Helping students "see themselves" in the work by connecting it to their interests, goals, or cultural identities

Developing trust by listening to students and responding to their input

Creating opportunities for student autonomy and choice as well as for collaborative learning with their peers

Showing students models of high-quality work and conveying confidence that they can produce equally good work

Providing frequent and specific feedback on students' work and opportunities for students to apply that feedback to progressively improve their performance

Ensuring fair grading practices that emphasize growth and improvement

Source: The University of Chicago Consortium on School Research⁶⁴

⁶² Brooks, Brooks, and Goldstein, Op. cit., p. 15.

⁶³ Aviles, N., G. Sharp, and K. Grayson. "How Transformational Leaders Develop a Growth Mindset for Student Success." *IDRA Newsletter*, December 2017. <https://www.idra.org/resource-center/transformational-leaders-develop-growth-mindset-student-success/>

⁶⁴ Chart contents taken verbatim from: Allensworth et al., Op. cit., p. 14.

SECTION III: SCHOOL DESIGN PRACTICES TO SUPPORT STUDENT ENGAGEMENT

In this section, Hanover Research reviews school design practices that support student engagement. This section begins by reviewing administrative supports for student engagement before discussing school-level interventions, including the Expeditionary Learning (EL) program, that support student engagement.

ADMINISTRATIVE SUPPORT FOR STUDENT ENGAGEMENT

Teachers need support from school and district administrators to implement classroom strategies that promote student engagement. School leaders should work with students and teachers to develop collective leadership capacity and create a positive school climate.⁶⁵ The National Dropout Prevention Center/Network at Clemson University recommends that school leaders use the strategies shown in Figure 3.1 to support student engagement.

Figure 3.1: School-Level Strategies to Support Student Engagement

-
- Adopt policies that support equity and inclusion throughout the school environment

 - Develop structures that ensure each student has caring adults that support and nurture their growth and development

 - Provide staff development to help teachers learn how to better support the emotional, social, and academic needs of each student in culturally responsive ways

 - Include measures of school engagement in accountability systems

 - Emphasize student-centered learning and engaging students as partners in the instructional process

 - Develop caring and trust between teachers and students

 - Allow students to have an appropriate degree of control over learning

 - Ensure course materials relate to students' interests and experiences, highlighting ways learning can be applied in their daily lives

 - Integrate projects and activities that offer young people opportunities to use knowledge and skills in meaningful, real-life situations

 - Help students feel that schoolwork is significant, valuable, and worthy of their efforts

 - Assign challenging but achievable tasks for each student. Tasks that seem impossible and those that are rote and repetitive discourage learners

 - Provide opportunities to work collaboratively as a community of learners that require sharing and meaningful interactions in a cooperative rather than competitive environment

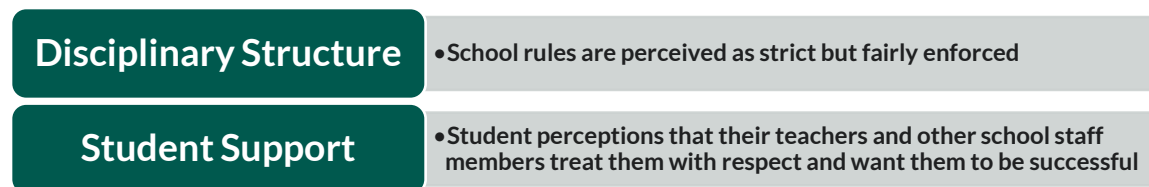
Source: National Dropout Prevention Center/Network⁶⁶

⁶⁵ Ibid., p. 26.

⁶⁶ Chart contents taken verbatim from: Dary, Pickeral, Shumer, et al., Op. cit.

In addition to supporting classroom practices that facilitate engagement, administrators should work with students and teachers to create a positive school climate that supports engagement for all students. A 2015 survey of middle grades students finds that peer support predicts a sense of belonging at school independently of teacher support, suggesting that a school climate in which students perceive their peers as supportive will improve student engagement.⁶⁷ A 2018 study drawing on a statewide survey of high school students and teachers in Virginia finds that an authoritative school climate characterized by high levels of structure and support for students contributes to student engagement and improved academic outcomes.⁶⁸ Figure 3.2 summarizes the key elements of an authoritative school climate. Schools can use [this survey instrument](#) to measure the degree to which students and faculty perceive the school climate as authoritative.

Figure 3.2: Key Elements of an Authoritative School Climate



Source: AERA Open⁶⁹

Administrators can also improve engagement by incorporating student input into decision-making where appropriate. For example, the District of Columbia Public Schools (DCPS) used student surveys to solicit student input on budget priorities. DCPS then incorporated the priority areas identified by students, which included additional funding for arts, physical education, and Advanced Placement classes, into the district’s final budget.⁷⁰ The National Dropout Prevention Center/Network has developed the Continuum of Youth Involvement summarized in **Figure 3.3** to guide the inclusion of student input into decision making.⁷¹

Figure 3.3: Continuum of Youth Involvement



Source: National Dropout Prevention Center/Network⁷²

PROFESSIONAL DEVELOPMENT

School and district leaders should provide classroom teachers with professional development opportunities to support the implementation of the classroom practices described in Section II of this report. Research finds that professional development can support teachers’ development of skills associated with student engagement. For example, a 2015 study of the Freedom Writers Institute, a professional development program focused on student engagement, finds that students whose teachers participated in this professional

⁶⁷ Kiefer, Alley, and Ellerbrock, Op. cit., p. 9.

⁶⁸ Konold, T. et al. “School Climate, Student Engagement, and Academic Achievement: A Latent Variable, Multilevel Multi-Informant Examination.” *AERA Open*, 4:4, 2018. pp. 9–10.
<https://eric.ed.gov/?q=school+climate+student+engagement&ft=on&id=EJ1201175>

⁶⁹ Chart contents taken verbatim from: Cornell, D., K. Shukla, and T.R. Konold. “Authoritative School Climate and Student Academic Engagement, Grades, and Aspirations in Middle and High Schools.” *AERA Open*, 2:2, 2016. p. 2.
<https://eric.ed.gov/?q=school+climate+student+engagement&ft=on&id=EJ1194590>

⁷⁰ “The Engagement Gap: A Report on the Spring 2016 ASCD Whole Child Symposium,” Op. cit., p. 18.

⁷¹ For a detailed rubric, see: Dary, Pickeral, Shumer, et al., Op. cit., p. 4.

⁷² Chart contents taken verbatim from: Ibid.

development reported significantly higher levels of engagement than students whose teachers did not participate.⁷³

Several organizations offer professional development focused specifically on student engagement. For example, ASCD offers professional development, including online courses, videos, conferences, and in-person professional development to support student engagement.⁷⁴ Marzano Resources offers eight professional development programs associated with student engagement, listed in Figure 3.3 with links to additional information regarding each professional development program.

Figure 3.4: Marzano Resources Professional Development Strategies for Student Engagement

- [The Art and Science of Teaching in a Personalized Competency-Based System](#)
- [Awaken the Learner](#)
- [Creating a Highly Engaged Classroom](#)
- [Cultivating Mindfulness in Schools](#)
- [Designing Effective Classroom Management](#)
- [High-Reliability Schools Certification](#)
- [Managing the Inner World of Teaching](#)
- [Motivating and Inspiring Students](#)

Source: Marzano Resources⁷⁵

Research finds positive effects of professional development focused on student engagement outcomes. A 2014 study of an Indiana middle school examines the impact of professional development on classroom practices through observations of six participating teachers over three years.⁷⁶ This study finds that three participating teachers demonstrated significant improvement in the amount of motivational support provided to students, while support levels for the remaining three teachers remained stable.⁷⁷ Another 2014 study examines the My Teaching Partner – Secondary professional development intervention through a randomized control trial with a sample of 87 middle and high school teachers.⁷⁸ This study finds a slight increase in student behavioral engagement over the school year for students whose teachers received professional development, compared to a slight decline in behavioral engagement for students in the control group.⁷⁹

SCHOOL-LEVEL INTERVENTIONS

Districts can support interventions at the school level that improve engagement for at-risk students. A 2011 review of instruments to measure student engagement published by Regional Educational Laboratory (REL) Southeast identifies three school-level interventions, summarized in Figure 3.5 on the following page, that meet the National Center for Education Statistics' (NCES) evidence standards for a positive impact on student engagement.⁸⁰

⁷³ Powers, K. et al. "The Impact of a Teacher Professional Development Program on Student Engagement." *International Journal of School & Educational Psychology*, 3:4, October 2, 2015. sec. Abstract. <https://doi.org/10.1080/21683603.2015.1064840>

⁷⁴ More information is available at the ASCD website. "ASCD Professional Development Solutions: Student Engagement and Motivation." ASCD. <http://www.ascd.org/professional-development/pls/student-engagement-and-motivation.aspx>

⁷⁵ Chart contents obtained verbatim through: "PD Topics - Professional Development." Marzano Resources. <https://www.marzanoresources.com/professional-development/pd-topics?topics=211>

⁷⁶ Turner, J.C. et al. "Enhancing Students' Engagement: Report of a 3-Year Intervention with Middle School Teachers." *American Educational Research Journal*, 51:6, December 1, 2014. p. 1204. <https://doi.org/10.3102/0002831214532515>

⁷⁷ Ibid., p. 1208.

⁷⁸ Gregory, A. et al. "Effects of a Professional Development Program on Behavioral Engagement of Students in Middle and High School." *Psychology in the Schools*, 51:2, February 2014. p. 147. Accessed via EBSCOhost

⁷⁹ Ibid., p. 155.

⁸⁰ Fredricks et al., Op. cit., p. 2.

Figure 3.5: Evidence-Based School-Level Interventions for Student Engagement

INTERVENTION	SPONSOR	DESCRIPTION
First Things First⁸¹	Institute for Research and Reform in Education	<ul style="list-style-type: none"> Focuses on small learning communities, a family advocate system, and instructional improvement Small learning communities are mixed-grade classrooms allowing teachers to base instruction on individual needs rather than grade-level expectations Instructional improvement focuses on increasing engagement (emotional, behavioral, and cognitive), alignment, and rigor (i.e., teacher standards for all students)
Check and Connect⁸²	Institute on Community Integration, University of Minnesota	<ul style="list-style-type: none"> Focuses on relationship building, problem-solving and capacity building, and persistence through academic and social competence Mentors work with disengaged students to keep education a salient issue for students and families by checking on (e.g., close monitoring of attendance and behavior) and connecting with (e.g., individualized intervention) students
Dropout Prevention⁸³	National Center for School Engagement	<ul style="list-style-type: none"> Focuses on school engagement, attendance support, and dropout prevention as three aspects of overall student success (called the “Three As: Attendance, Attachment, and Achievement”) Builds and regularly evaluates attendance improvement plans and replaces outdated push-out policies with supportive pull-in ones Works to increase parent engagement with both their children and the school community

Source: Regional Educational Laboratory Southeast⁸⁴

EXPEDITIONARY LEARNING

EL’s comprehensive school design model incorporates the elements listed in Figure 3.6. Notably, several of these elements align with strategies recommended to support student engagement. For example, EL’s curriculum incorporates PBL and other inquiry-based learning activities that connect to students’ lives outside the classroom, while EL promotes a positive school climate for all students. Classroom instruction and assessment includes opportunities for student choice, and teachers intentionally emphasize student engagement in instruction.⁸⁵

Figure 3.6: EL School Design Model

ELEMENT	DESCRIPTION
Real-World Curriculum	Our approach to curriculum makes standards come alive for students by connecting learning to real-world issues and needs. Academically rigorous, project-based learning expeditions, case studies, projects, fieldwork, and service-learning inspire students to think and work as professionals, contributing high-quality work to authentic audiences beyond the classroom. Our

⁸¹ Connell, J.P., A.M. Klem, and T. Lacher. “First Things First: Theory, Research and Practice.” Institute for Research and Reform in Education, 2009.

https://www.researchgate.net/publication/281559074_First_Things_First_Theory_Research_and_Practice

⁸² “Check & Connect Student Engagement Intervention Model.” Institute on Community Integration, University of Minnesota. <http://checkandconnect.umn.edu/>

⁸³ “Dropout Prevention.” National Center for School Engagement. <http://schoolengagement.org/school-engagement-services/dropout-prevention/>

⁸⁴ Programs identified through: Fredricks et al., Op. cit., p. 2.

⁸⁵ “Our Approach.” EL Education. <https://eleducation.org/who-we-are/our-approach>

ELEMENT	DESCRIPTION
	schools ensure that all students have access to a rigorous college preparatory curriculum, and regularly analyze that curriculum to align with those standards.
Invigorating Instruction	Our classrooms are alive with discovery, inquiry, critical thinking, problem-solving, and collaboration. Teachers talk less. Students talk (and think) more. Lessons have explicit purpose, guided by learning targets for which students take ownership and responsibility. Student engagement strategies and activities serve to differentiate instruction and maintain high expectations to bring out the best in all students, cultivating a culture of high achievement.
Assessing Student Learning	Our leaders, teachers, and students embrace the concept of student-engaged assessment in education. Why? Because it builds student ownership of learning, drives achievement, and focuses students on reaching standards-based learning targets. Students continually conduct learning assessments and improve the quality of their work through models, reflection, critique, rubrics, and expert assistance. And staff members conduct ongoing data inquiry and analysis, examining factors including student work and results of formal educational assessments. Using this approach, we promote educational equity across all schools.
Respectful Culture	Our schools build cultures of respect, responsibility, courage, and kindness, where students and adults are committed to quality work and citizenship. School structures and traditions—such as crew, community meetings, exhibitions of student work, and service-learning—ensure that every student is known and cared for, student leadership is nurtured, and contributions to the school and world are celebrated. Students and staff are supported to do better work and be better people than they thought possible.
Leadership	Our school leaders build a cohesive school vision focused on student achievement and continuous improvement. And they align all school activities with that vision. Leaders use data wisely, boldly shape school structures to best meet student needs, celebrate joy in learning, and build a school-wide culture of trust and collaboration. Leadership in our schools goes beyond a single person or team; it's a role and expectation for all.

Source: EL Education⁸⁶

Empirical research confirms the benefits of EL for student engagement. A 2019 study examines outcomes of EL's Teacher Potential Project (TPP), which combines the EL curriculum with professional development for ELA teachers, in 19 school districts across the United States.⁸⁷ This study finds that participation in the TPP significantly increases teachers' implementation of classroom practices that facilitate student engagement in participation, including collaborative discussions and encouraging students' participation in class discussions.⁸⁸ A case study of a school for Grades K-10 using the EL model finds that elements of this model including service learning, collaborative teacher professional development, and inquiry-based learning support culturally competent instruction and a welcoming school environment.⁸⁹

⁸⁶ Chart contents taken verbatim from: Ibid.

⁸⁷ Dolfin, S. et al. "Evaluation of the Teacher Potential Project." *Mathematica*, June 28, 2019. pp. x–xi. <https://www.mathematica-mpr.com/our-publications-and-findings/publications/evaluation-of-the-teacher-potential-project>

⁸⁸ Ibid., p. 54.

⁸⁹ Ikpeze, C. "Increasing Urban Students' Engagement with School: Toward the Expeditionary Learning Model." *Journal of Urban Learning, Teaching, and Research*, 9, 2013. pp. 59–61. <https://eric.ed.gov/?id=EJ1027016>

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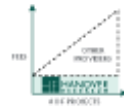
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