

Student Engagement

Evidence-based strategies to boost academic and social-emotional results

By Cheryl Abila and Brittney R. Fraumeni



About the Authors



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From a teacher's perspective, *night and day* comes close to describing the difference between working with engaged versus disengaged students. Every teacher on earth has experienced the impact on learning that student engagement (or the lack of it) can make, and we're willing to bet that every teacher on earth has at some point wished engagement could be bottled and served with breakfast.

To a degree, it can be. While science has yet to invent the switch we can flip to make all of our students active, enthusiastic learners, education researchers have indeed identified ways that teachers can create the conditions in which learning thrives—and emotional readiness is very much part of the mix. For example, Goodwin and Hubbell (2013) proposed that effective teachers do three things really well: They articulate and maintain high expectations for learning (they are demanding), they know *why* they're doing *what* they're doing (they are intentional), and they provide a nurturing learning environment (they are supportive).

That third element, being supportive, is all about engaging students through meaningful interactions, generating interest in every lesson, giving feedback that encourages effort, and creating “an oasis of safety and respect in the classroom” (p. 105). Just like lesson plans or professional learning or instructional models and frameworks, engagement is among the levers that educators can push to make learning more effective and exciting for their students, so it would be useful to know how the field's understanding of engagement and its usefulness has evolved, and what strategies for increasing engagement have a researched evidence base.

Attempting to define engagement

The decades-long quest for a definition of engagement sheds an interesting light on society's

ongoing effort to reach agreement on what, and who, school is for. Before drifting into the popular consciousness as a quality of mental and emotional connectedness, the word “engagement” for centuries referred to legal or moral obligations (Axelson & Flick, 2010). Researcher Alexander Astin is credited with launching our modern understanding of student engagement as a comprehensive experiential gauge (though he used the word “involvement” and focused on college students). His definition: “the amount of physical and psychological energy that the student devotes to the academic experience” (Astin, 1984).

That, of course, is entirely one-sided. Later, George Kuh, director of the National Survey of Student Engagement, expanded the definition to assert that engagement isn't the responsibility of students alone, but rather is reciprocal, including “both the time and energy students invest in educationally purposeful activities and the effort institutions devote to using effective educational performance” (quoted in Axelson & Flick, 2010, p. 41). Gallup, which regularly surveys student engagement, has pointed out that teachers who feel engaged with their work will have an easier time helping students feel engaged with school (Reckmeyer, 2019).

To speak of engagement at all is to acknowledge that school is about more than developing the ability to remember and repeat facts. The various definitions of student engagement in the research literature tend to have grown in length and complexity over time as they have sought to capture more and more aspects of the school experience. What they all have in common is a recognition that school is not merely a place where knowledge is transferred from one generation to the next but is also a place for emotional connections, which can be either negative or positive. If there is daylight among the definitions, it is largely over whether engagement is more a matter of observable behavior or interior attitude (Axelson & Flick, 2010; Jimerson et al., 2003).

Fredricks et al. (2004) identify three types of engagement:

- **Behavioral** engagement, which includes students observing community norms and participating in activities.
- **Emotional** engagement, which includes students' feelings of interest, boredom, happiness, sadness, and anxiety.
- **Cognitive** engagement, which is closely related to motivation and involves students' desire and ability to engage in a variety of strategies to self-direct learning.

Here are some of the other best efforts we've seen at a definition:

- "How involved or interested students appear to be in their learning and how connected they are to their classes, their institutions, and each other" (Axelson & Flick, 2010, p. 38).
- "Any sustained connection a learner has towards any aspect of learning, schools or education" (SoundOut, quoted in Fletcher, 2019, p. 2).
- "Meaningful student involvement throughout the learning environment" (Martin & Torres, 2016, p. 2).

We don't see anything to argue with in any of these definitions, but we would add that McREL considers *curiosity* to be a necessary precondition to deep, sustained learning. With that in mind, here is our definition of student engagement:

A condition of emotional, social, and intellectual readiness to learn characterized by curiosity, participation, and the drive to learn more.

Why engagement matters

There is a chicken-and-egg quality to student engagement: Do students feel engaged with school because they are successful there? Or do they become successful in school because they feel engaged with it? Obviously, we wouldn't be discussing engagement in this paper if we didn't think teachers could influence students' levels of engagement, and that, in turn, engagement can influence students' academic attainment. The

bottom line for educators is that engagement isn't just a reflection of success in school, but a contributor to it. "Engagement is malleable; it is presumed to be a function of both the individual and the context. Thus, it can be changed more easily than an individual trait or a general tendency" (Fredricks et al., 2004, pp. 82–83). In other words, engagement is worth learning about because there are things teachers can do to generate it, and it is effective.

Before proceeding to some "try this" ideas, let's take a quick look at two aspects of students' lives and education that both may be impacted by engagement: academic achievement and social-emotional outcomes including substance abuse. Either of these would be worth putting significant effort into. Knowing that we may be able to make strides in both at once is even more alluring.

Academic achievement. The notion that students may be bored or even miserable at school, yet still be expected to perform at a high level academically, is antiquated. Modern educators of course are in widespread agreement that if students dislike school they will perform worse than they would otherwise, and moreover, it is the responsibility of the grownups, not the students alone, to improve the atmosphere.

In a study of schools that had undergone organizational changes, Marks (2000) found a direct link between greater psychological engagement, and higher grades and better performance: "Students who are engaged with school are more likely to learn, to find the experience rewarding, to graduate, and to pursue higher education. . . . Although research examining the effect of engagement on achievement is comparatively sparse, existing studies consistently demonstrate a strong positive relationship between engagement and performance across diverse populations" (pp. 154–155). Marks defined engagement as "a psychological process, specifically, the attention, interest, investment, and effort students expend in the work of learning" (pp. 154–155).

Social-emotional outcomes. If school were only about academics then we might be satisfied knowing that engagement can boost scores, but that is no longer sufficient for most educators. What if a student got straight A's, double 800's on the SAT, and was accepted into prestigious colleges yet engaged in self-destructive behavior? Would that be an acceptable educational outcome?



Noting the preponderance of studies examining the link between engagement and academics, Wang and Fredricks (2014) set out to see if other outcomes, too, could be influenced by engagement. Indeed, they found, “school engagement and delinquency and substance use are mutually reinforcing over time. Specifically, changes in adolescents’ delinquency and substance use were predicted by their early levels of behavioral and emotional engagement in school” (p. 732). They took into account behavioral engagement (“participation and task involvement in academic activities”), emotional engagement (“identification with school, which includes belonging, enjoyment of school learning, and valuing or appreciation of success in school-related outcomes”), and cognitive engagement (“strategic or self-regulated learning”) (p. 722).

Using data from a large 4-H study of middle schoolers, Li et al. (2011) found that “relative to peers, students who entered adolescence with higher levels of behavioral and emotional engagement tended to be less likely to initiate substance use and delinquency, or more likely to initiate such behavior later, compared with youth characterized by lower school engagement. . . . The consistent association between improved school engagement and decreased incidence (or risk) of problem behavior is encouraging” (p. 1189). Like Li and Lerner (2011), Wang and Fredricks (2014) found that disengaged

students are likelier to use alcohol, marijuana, and cigarettes than engaged ones.

In other words, student engagement with school creates not only more-accomplished learners, but physically and mentally healthier people.

A caveat: Engagement isn’t forever

If engagement is malleable, it can also be fleeting. Sad to say, we can’t promise that engagement, once achieved, can be relied upon forever. People change, and students, by and large, feel less connected with school the longer they’re there.

A 2013 Gallup poll of 500,000 students in grades 5–12 found that roughly 8 in 10 elementary students felt “engaged” in school—that is, attentive, curious, and optimistic about their learning. Yet among eleventh graders, that proportion had plummeted by half, with just 4 in 10 feeling engaged (Busteed, 2013). When Gallup asked teens in 2004 to select three adjectives from a list of 14 to describe how they usually feel in school, the top choices were “bored” (selected by 50% of students) and “tired” (selected by 42%). Only two percent said they were never bored (Lyons, 2004).



That means teachers in the higher grades need to be prepared to make an extraordinary commitment to help students stay engaged in your class and with the entire school experience.

Six research-based ways to engage with engagement

Now that we have a shared understanding of the many ways that engagement can profoundly influence a student's relationship with school and some of the obstacles to becoming and staying engaged, it's time to *do* something about it! Following are six research-based strategies related to student engagement, with a tactic or two for each.

- 1 Measure it.** While measuring student engagement in the classroom can't *directly* increase or improve engagement, it does allow for educators to better understand how engaged their students are—which can inspire more and better interventions. Having reliable before-and-after evidence, rather than relying entirely on anecdotal characterizations of classroom environment, is a useful way to track changes in engagement and discover what methods individual classrooms are responsive to.

In a validation study of the University of Minnesota's Student Engagement Instrument (SEI), Appleton et al. (2006) pointed out that "measurement of student cognitive and psychological engagement is central to improving the learning outcomes of students, especially for those at high risk of educational failure" so that they can "leave secondary schools as competent and committed learners rather than disenchanted casualties" (p. 439). The SEI, they believe, can help schools accomplish that, particularly if school psychologists are tasked with administering the assessment.

Try this: If your district can't assign a psychologist, there is a free pencil-and-paper version of the SEI that any classroom teacher can use. Register at http://checkandconnect.umn.edu/sei/pencil_paper.html. Of course you'll have to decide whether you want your students filling in yet another series of bubbles, but if you want data on such matters as "I enjoy talking to the teachers here" and "I am hopeful about my future," the free SEI is hard to beat.

2

Focus on relationship-building.

Having a Pinterest-worthy room, flexible seating, and implementing research-backed instructional strategies are steps in the right direction, but you still need to start with building strong connections and relationships with your students. When you think back on the teachers who had a positive impact on you and your learning, they were more than likely teachers who would take the time to work with you and discover who you were and knew your strengths. Those special teachers welcomed you into their classroom, knew what was going on in your life and cared about it, and most likely had a belief that you could take on any challenge and succeed.

Merely making the effort to greet students warmly when they enter your classroom can improve the atmosphere (Cook et al., 2018). While the power of such a simple act of kindness shouldn't be underestimated, it's possible (and preferable) to create deeper bonds based on personality and enthusiasm. Being an authority figure needn't mean being aloof or scary. On the other side of that token, being an approachable human being needn't mean abandoning the strong instructional practices you worked hard to develop. There is a Goldilocks zone in which your relationship with students can be based simultaneously on both content and connectedness.

Here are some relationship-building ideas from McREL's *The 12 Touchstones of Good Teaching* (Goodwin & Hubbell, 2013, pp. 86–89):

- Develop a persona. Not a *character*, exactly, but a version of yourself that emphasizes the traits that serve students' needs. You've got to judge when the room needs more energy and when it could use some simmering down, and alter your speaking and listening style accordingly, so that students can truly hear what you're trying to tell them—and vice-versa.
- Reveal some of yourself to students. Don't go overboard but do explore the overlap between your persona and your personality. For example, if you want to make the point that learning comes more naturally when we have a personal connection to the content, you could share some anecdotes about your own life and explain how they helped you learn.

- Don't be overly serious. Everyone craves variety, and that includes enjoying an occasional emotional release. Lighthearted moments are crucial to helping everyone stay tuned into one another. A joke, an act of silliness, or a whimsical conversational detour can aid learning even if it temporarily refocuses the class away from the content, merely by providing a dose of emotional refreshment.
- Model enthusiasm for learning. Instead of harping on bad things that happen to students who don't accomplish their objectives, like low grades, how about previewing the good things that happen to those who do, like advancing in their chosen academic paths and careers? The message is the same, yet completely different: Learning is something to be sought after.

Try this: To build a relationship with a student, it is important to know about their life. What are their passions? What gets them curious? What are some of their struggles? Try creating an interest survey. Interest surveys can help you build on personalized learning and relationship-building. Remind students that you will not share their responses and that it is for your eyes only. Questions could include: What is your favorite hobby? What is your favorite subject in school? What is the title of your favorite book? What are you most passionate about? What is your biggest fear? What do you like/not like about school? What is something you think I should know to help you learn the best you can in our classroom? How do you learn best? How do you like to be recognized? Use the results to craft lessons and projects based on their interests and passions.



3

Seek the right balance of structure and student autonomy.

When *autonomy-supporting* teaching behaviors are used rather than *controlling* teaching behaviors, students show higher levels of engagement. Teachers who learn to motivate rather than control don't merely impart knowledge, they become genuine collaborators with their students, leading to greater satisfaction with the classroom experience for both (Reeve, 2016).

Rejecting the notion that the teacher's role is to exert control can't mean abandoning all behavioral expectations, of course. Structure refers to providing students with clear expectations and methods of achieving desired educational outcomes. Teacher-provided structure helps students develop a sense of perceived control over school outcomes. Autonomy support and structure are not antitheses, but two facets of the same desire to help students learn: "Teacher-provided autonomy and structure both make important contributions to supporting students' classroom engagement" (Jang et al., 2010, p. 590).

Skinner and Belmont (1993) identified three teacher behaviors that can influence students' behavioral engagement: involvement, structure, and autonomy support. These variables could be manipulated, they said, to create an ideal learning environment for each student that strikes the right balance between teacher direction and student motivation to accomplish learning objectives. "For example, teachers can provide high structure (clear

information) that either is combined with a great deal of freedom (high autonomy support) or is very coercive (low autonomy support)" (p. 573). Teachers have a clear impact on student engagement, they wrote: "Children's engagement in learning activities is influenced both by their perceptions of teachers and directly by teachers' actual behaviors" (p. 578).

Reeve (2016) said teachers can adopt a "motivating style" that leads to autonomy support, with two goals. The first is "clear and obvious—namely, to provide students with learning activities, a classroom environment, and a student-teacher relationship that will support their daily autonomy" (p. 133). The second, less obvious goal is to be "in synch" with students, so that the actions of one influence the actions of the other. "Teacher-provided autonomy support . . . affords students a greater opportunity to be more engaged in classroom activity. Together, the teacher and student join forces to move toward a higher-quality motivation (students) and a higher-quality motivating style (teachers)" (p. 134).

As a teacher, you'll know you've achieved an appropriate balance between structure versus autonomy when you've got four or more groups all working diligently on different tasks. Everyone knows what their role is in the learning process, everyone is tending to a task or working a problem, and nobody is distracted. There's a pleasant conversational "hum" in the room that's entirely work-oriented.

Try this: Demonstrate to students that you genuinely want their involvement by asking them flat-out, “How do you like to be taught? What helps you to ‘get’ the material?” Sort them based on their responses. Take a chapter, subject, or specific content that you usually teach to the whole class and divide it based on the number of groups you now have.

Each group now gets the opportunity to teach a portion of content to their classmates in the style they identified. You’ll give them all some non-negotiables that every group will be responsible for (e.g., key points need to be covered; nonlinguistic material must be included; no more than 10 minutes of lecturing until a mandatory break to process and apply the information; a formative assessment must be included; and be ready to reteach if any students score less than 80% on an assessment).

Beyond that, each group gets to demonstrate the benefits of its chosen style of teaching and learning.

4

Use technology thoughtfully.

There is solid evidence that technology can help boost student engagement with learning. One early proponent of the now-ubiquitous interactive whiteboard wrote that it could “provide a significant potential for meeting the needs of students with diverse learning styles and for engaging students during the learning process” (Beeland, 2002, p. 6). As other gadgets, such as video games and iPads, rose to prominence, subsequent researchers reached similar conclusions about them (Annetta et al., 2009; Diemer et al., 2012).

Then again, there’s the evidence of our own eyes, which is telling us that tech also has the unfortunate potential to distance people from their surroundings and one another. At McREL, our dual role as classroom consultants and technology evaluators has led us to adopt a stance of skeptical optimism. We believe that technology should never be introduced to the classroom without evidence of effectiveness merely because it seems cool; but then again it should never be shied away from merely because it is new and different. Use a technological innovation if it’s the most efficient path from points A to B—that is, from a learning objective to a learning outcome.



Our own research on behalf of ed-tech developers and tech-friendly schools (McREL 2017, 2019a, 2019b) suggests that educators who expect to offload their key responsibilities onto software are sorely mistaken. Rather, a teacher who uses the tech as a tool—as a means to an end—can indeed get better results than if the tech had not been available. Tech tools can be particularly useful when the lesson calls for students to be able to visualize a concept or when a guided sequence of steps is called for.

Try this: Investing in educational technology can have budgetary and curricular ramifications for years to come. It is possible to try before you buy, however—and even to get a deep level of support from the manufacturer at no cost—by participating in a research trial. Evaluators, including McREL, recruit schools and districts to use ed-tech products and report back on the experience. Similar to patients who participate in drug trials, many teachers find the experience gratifying because regardless of whether their school ends up adopting the product, they and their students have contributed to the field’s understanding of what works.

5

Engage in effective questioning.

Effective questioning is associated with many positive, engaging behaviors, such as motivation, curiosity, and student problem-solving. Particularly in the context of cognitive engagement, teacher questioning can have a large impact. Effective questioning is multidimensional. Some examples include using both preplanned questions and emerging questions, using sufficient wait time between asking a question and expecting a response, and asking appropriately complex questions for the learner level.

Caram and Davis (2005) said that students like learning as long as they view it as purposeful, and that “creating a culture of investigation is a key component to engaging students” (p. 20). Questions, they advised, should be an opportunity for dialogue, not monologue: “Questions that stretch students’ minds—the kind that invite students’ curiosity, provoke thinking, and instill in students a sense of wonder—keep students engaged” (p. 23). Smart and Marshall (2013) added that in science classes, “teacher questioning is a potentially integral subcomponent to achieving effective classroom discourse” (p. 250) and that “teacher questioning in inquiry [as opposed to non-inquiry] environments seeks to elicit student thought and encourage students to elaborate on their ideas” (p. 251), suggesting that questions shouldn’t end with one-





off answers but should be springboards to further elaboration, a hallmark of cognitive engagement.

According to Walsh and Sattes (2017), quality questions “(1) focus students on important content aligned with standards and learning goals, (2) promote one or more carefully defined instructional purposes, (3) facilitate thinking at an appropriate cognitive level, and (4) are clearly and concisely worded so that students understand what is being asked” (p. 27). While they describe quality questioning primarily as a tool to aid in content acquisition, they also acknowledge the role that questioning can play in relationship-building and engagement: Quality questioning “unfolds in classroom cultures cocreated by students and teachers who value relationships based upon mutual trust and respect” (p. 8).

Similarly, McREL’s quick guide, *Unleashing Curiosity with Quality Questioning* (2018), points to the community-building power of questioning, not just its value in transmitting knowledge. As students hear one another taking increasing responsibility for their own learning in part by generating questions of increasing sophistication, “They see themselves and their peers as producers of knowledge.” Questions at this level may still end in a question mark, yet in their depth they are utterly different from the sort of cursory questions that can only be answered with “yes,” “no,” and “maybe.”

Try this: At its most basic, a question is designed to elicit an answer. Yet a modification as simple as replacing the stem “What?” with “What if?” can turn a question into an opportunity for deep thought and productive conversation. “How does that work?” and “What makes you say that?” are other examples of thought-provoking questions.

Before: “What are the four stages of a butterfly’s life?” After: “What would happen if, during the larva stage of a butterfly’s life, there’s a drought?”

Before: “Which is the divisor and which is the dividend?” After: “What happens if you change or add a digit to the divisor or dividend?”

6

Connect with the “real” world.

Remember the Gallup polls cited earlier that documented how often teenagers say they are bored in school? A 2006 report called *Silent Epidemic* reported the same thing, but also added a piece of insight that educators can use to combat disengagement: Students said that a great way to make classes more interesting, and boost their chances of graduating, would be to offer multiple connections to the outside world, such as internships and service projects (Bridgeland et al., 2006, cited in Goodwin, 2011).

Try this: In the upper grades, seek opportunities to connect school and career, emphasizing that they aren’t opposites, but complementary modes of learning. A “career academy,” which can be a school-within-a-school, is a strong option to consider. One study that tracked graduates of such programs found that they were likelier to graduate and that after eight years, they earned 11 percent more than peers who had soldiered on through regular high schools; the benefits were particularly noteworthy among minority males (Kemple with Willner, 2008, cited in Goodwin, 2011).

Engagement is more than a gut feeling

As a teacher your understanding of interpersonal relations is undoubtedly highly advanced. There’s no research-based substitute for gauging engagement by being in a room with a person for hours and hours for 180 days a year and making (or avoiding) eye contact and conversation. If you think a student is or isn’t “clicking” with you, with peers, and with the school environment, you’re probably right.

The reason for injecting a research base into our consideration of engagement, however, is that appearances can be subject to misinterpretation. Are students fully engaged with their learning when they snap to attention on command, sitting at their desks and silently staring up at you with folded hands and polite smiles? Or when they turn to a classmate and ask for some insight on a challenging topic, thus increasing the noise level in the room?

Could be both; could be neither. The ingredients of engagement can vary from student to student, from subject to subject, from teacher to teacher, even from one time of day to another. What never varies is the desirability of creating ever-greater engagement with, among, and within students. ■



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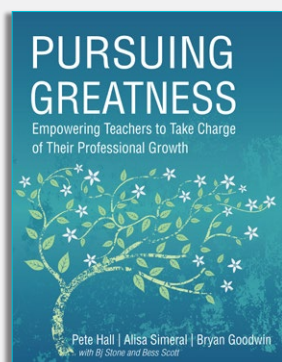
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McREL: Professional services to help educators flourish

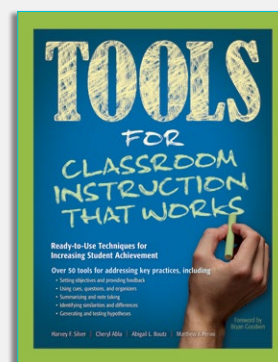
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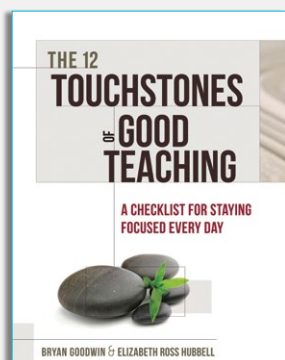
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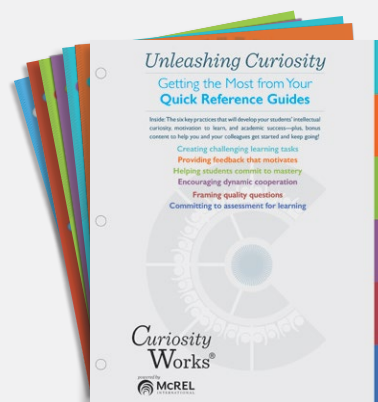
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