

The critical need for replacing compliance-based teaching with engagement-based teaching

This white paper describes the urgent need to adopt engagement-based education in all of our nation's schools. Many education organizations and education policymakers advocate for the need to raise student achievement, but too narrowly define this goal to mean only raising standardized test scores, a goal that is primarily achieved using methods that promote student compliance. To truly improve student achievement we must prepare students to navigate the problems they face in today's world. Decades of research show that students must become engaged and invested in their own education in order to build the critical thinking and empathy skills they need to thrive in the 21st century.

Introduction

The research is clear—students need to be engaged in their education for lasting, meaningful learning to occur (Fredricks, Blumenfeld, & Paris, 2004; Reyes, Brackett, Rivers, White, & Salovey, 2012; Finn, & Voelkl, 1993; Marks, 2000). Many schools continue to use the traditional, compliance-based pedagogy first created to meet the demands of the Industrial Revolution and 1800s America, denying modern students the type of education they need to thrive. Instead we need policies, trainings, professional development, and academic standards that all contribute to schools where engagement-based practices can flourish.

Today both adult and young learners live in a rapidly changing world that requires them to collaborate, grapple with complex problems, think creatively about how to solve these problems, figure out how to live peacefully alongside people with whom they might disagree, and respond productively to change. Many researchers and writers have noted this "shifting global paradigm" towards a knowledge- and innovation-based economy that requires the use of the skills listed above, often referred to as "21st century skills" (Plucker, et al., 2015). The goal of education, going beyond content mastery, must be for students to be engaged in "deeper learning," working to become adept at taking skills learned in one situation and then applying them to new, unfamiliar contexts (Pellegrino et al., 2012).

These are the types of skills that engagement-based education successfully builds in students. And this is why Center for Inspired Teaching believes all schools should be engagement-based: we were founded on the principles that young people are innately curious, that they want to learn, and that they are born with the ability to grapple with complex problems and invent solutions. We believe schools should embrace the belief that young people can come up with ideas that can transform communities. This can only be done if our teachers and schools view every student not as an empty vessel or empty head to fill, but as the owner of a powerful mind who needs to learn how to use that mind well.

In recent years, policymakers have attempted to solve educational challenges by trying to make American students more competitive on international standardized assessments. These leaders have implemented standardized tests and curricula, and various punitive measures for schools and districts not complying with state and national mandates. This environment set the stage for the proliferation of schools characterized by a highly regulated and "rule-ordered" environment, where stringent rules "shadow children throughout the day," regulating everything from how students walk down the hall to how they are supposed to raise their hand to request permission to use the restroom (Goodman, 2013).

The absence of misbehavior does not necessarily indicate the presence of learning.

While some compliance-based schools have been touted by these same policymakers for their test scores (Furgeson et al., 2011), policies in these schools are often controlling, authoritarian, and coercive, stifling the very creativity and intellectual independence described above, which students need to thrive. In their mixed-methods evaluation of one compliance-based school, Thompson, McDonald, and Sterbinsky (2005) found that the school's strict rules undermined student agency; one student in particular complained that "she did not have as many opportunities to make choices" as she had had in her previous school (p. 30). This restriction of student autonomy may ensure order in the short term. In the long term, however, it can destroy children's ability to make decisions independently—a crucial skill for adulthood

(Rodgers, 1998). The strict discipline in these schools works to ensure that student compliance is the most highly valued skill of all. From their beliefs that teachers are the ultimate authority to their deficit-based perspective that students need to be "fixed", those who run and promote compliance-based schools believe strict discipline is the essential component of learning.

What these schools and the policymakers who support them fail to recognize, however, is that the absence of misbehavior does not necessarily indicate the presence of learning. While students may sit quietly through a lecture series and even report that they enjoyed this style of instruction, studies have shown that they are not truly mastering the content (Freeman, Scott, et al., 2014).

As the following chart illustrates, Inspired Teaching provides an alternative to the model of educational compliance by training teachers to create engagement-based classrooms that involve students intellectually, emotionally, physically, and behaviorally in their learning.

Engagement-based classroom (Inspired Teaching)

Compliance-based classroom

Students are believed to have an innate desire to learn.	Students are believed to be open vessels that need to be filled.
Curiosity and engagement are viewed as necessary for learning to occur.	Strict discipline is viewed as necessary for learning to occur.
The teacher and students share mutual respect for one another.	The teacher is viewed as the ultimate authority, and students are rarely asked for their own expertise or opinion.
Learning through play is valued and encouraged.	Play is viewed as a distraction from learning.
Teachers believe learning happens when classrooms are full of loud, curious, joyful energy.	Teachers believe learning happens when classrooms are quiet and controlled.
Teachers ask questions where there are many possible answers; there is a variety of evidence of student learning.	Teachers ask questions where there is one correct answer; student learning is measured primarily through conventional testing.
Students are intrinsically motivated; they are genuinely invested in deepening their skill & understanding in the material they are learning.	Students are extrinsically motivated; they do their school work and they behave in order to earn rewards: candy, points, stickers, etc.
Student talk is prevalent, and students are treated as emerging experts.	Teacher talk dominates the classroom, and most student contributions happen in response to the teacher's prompt

teacher's prompt.

By changing school from a place that values compliance to a place that prizes engagement, Center for Inspired Teaching strives to ensure that all students can thrive in and contribute to our complex and rapidly changing world.

What does engagement-based education look like?

Compliance-based schools are premised on the notion that teachers provide "good" instruction when they carefully direct every aspect of students' learning. Under this model, students are not consistently challenged to grapple with real-life problems or to use their imaginations to create new solutions. In compliance-based systems, teachers succeed when they quickly provide students with the answers to problems, both academic and social, and students achieve their potential when they have memorized and can quickly recall the content provided by the teacher.

In contrast, Inspired Teaching believes that excellent instruction teaches students how to think, ensuring they are able to analyze information and connect concepts independently, and not only parrot facts. We believe the only way to achieve that potential is to replace compliance-based teaching with engagement-based teaching.

Student engagement levels are a powerful factor in virtually every outcome that educators use to measure the success of a child in school and in life. Students who experience engaging lessons are much more likely to achieve positive longterm developmental outcomes compared to youth who experience low levels of challenging learning activities at the beginning of high school (Gambone, Klem, Connell, 2002). Children who are more engaged in school earn higher grades and are less likely to drop out (Connell, Spencer, & Aber, 1994). Engaged students tend to stay in school longer, and tend to put in more effort to receive good grades, pay attention in class, experience more positive emotions, and persist in the face of difficulties (Connell & Wellborn, 1991; Finn & Rock, 1997; Fredricks et al., 2004; Skinner, Wellborn & Connell, 1990). Conversely, a lack of engagement can initiate a downward spiral of dysfunctional school behavior and decreasing academic achievement, too often culminating in a student dropping out of school entirely (Alexander, Entwisle, & Horsey, 1997).

Recent studies indicate that disengagement affects

more than half of American middle and high school students (Gallup Student Poll, 2016). In the national Gallup Student poll (2016), less than half of the nearly 850,000 students surveyed said they were engaged in school, and almost one quarter of students said they were actively disengaged. Student engagement also tended to drop as students got older, as 5th graders reported higher scores of engagement than students in grades 6th-12th.

While experts agree that for learning to take place, students need to be truly engaged in the learning activity, there are many definitions of what student engagement looks, sounds, and feels like. Researchers often distinguish between intellectual engagement (e.g., authentic learning opportunities, student investment in their own learning), emotional engagement (e.g. positive attitude about learning, interest, belonging), and behavioral engagement (e.g. effort, positive conduct, participation). Inspired Teaching uses all of these concepts and adds a physical or kinesthetic component, thus defining student engagement as intellectual, emotional, physical, and behavioral involvement in learning.

Intellectual Engagement

Intellectual engagement refers to students' ability see the everyday relevance of their school work and their ability to think strategically (Appleton, 2012; Wilms, et al, 2009). It is associated with self-regulation, motivation, and effort (Zyngier, 2008). Research has found that intellectual engagement leads to positive learning outcomes (Fredricks, et al., 2004; Greene, 2015; Wigfield et al., 2008). Instructional activities such as focusing on real-life scenarios, allowing students to set their own learning agenda, focusing on creativity and collaboration in the classroom, and utilizing small group work and discussion instead of lectures, have all been found to lead to increased student achievement.

Studies have found that students are more engaged when presented with authentic learning activities, focusing on real-world, complex problems and their solutions. Inspired Teaching uses the term "authentic" to refer to instruction designed to do more than simply keep students occupied, and that pushes students to do the difficult work of independently problem solving and thinking critically. While activities such as

playing class Jeopardy or learning a song to memorize times tables might be enjoyable and difficult for students, these fail to be truly authentic learning activities because they ask students to interact with information only through memorization and rote recall. Far more effective are learning activities that both require higher order thinking and have real-world relevance.

These can include short-term projects such as measuring the iron levels of different cereals and then using the knowledge gained to critically examine food nutrition labels and advertisements; also possible are long-term projects, such as conducting a community needs assessment, devising a solution to the need, and presenting ideas at a city council meeting (Dennis and O'Hair, 2010). Marks (2000) found that authentic instruction is a powerful contributor to the engagement levels of elementary, middle, and high school students. In a national comparison study of engagement levels of elementary, middle, and high school students, researchers found that student engagement in academic work steadily declines as grade level increases; holding all other influences constant, the opportunity to engage in authentic instructional work explained nearly 20 percent of a student's engagement level. Students who felt productive and successful were those who regularly engaged in challenging and interactive classroom activities. In contrast, repetitive and procedural activities were associated with student boredom.

Research has shown that students who are encouraged to set their own agendas for learning show greater enthusiasm and motivation, allowing teachers to focus on instruction rather than maintaining discipline. A study by Savoie and Hughes (1994) found that ninth graders who participated in a problem-based lesson were motivated, engaged, and eager to share their thoughts about the problem both inside and outside the classroom. For the task, students were asked to set their own learning agenda and decided how to pursue a solution to the given problem. One student observed that studentdirected methods still require a great deal of teachers, calling it "the way to get to know your students better. You get to make sure they know what they're doing. You know if they understand."

Focusing on creativity and collaboration in the classroom has been found to positively affect student achievement, although unfortunately

this focus is not common. For example, Schacter and his colleagues (2006) found that several creativity-supportive practices can increase student achievement, including teaching for creative thinking, providing students with authentic choices and exploratory learning, and providing opportunities for students to use their imagination. However, these researchers also found that these practices were not frequently used by teachers (Schacter, Thum, & Zifkin, 2006).

Inspired Teachers facilitate as students grapple with difficult problems; they refuse to simply provide answers and are comfortable if students leave a lesson with more questions than when they arrived. Students of Inspired Teachers demonstrate understanding through standardized assessments AND through engineering projects, art displays, oral presentations, and other creative work.

Similarly, a 1989 study by Nystrand & Gamoran concerning instructional discourse and student engagement found that students who are in classes that use authentic question and answer sessions, high-level evaluation, continuity in reading activities, and increased discussion time, have higher scores on achievement tests than their peers. High levels of student engagement rarely occur through lecture, though traditionally this has been the most prevalent method of instruction.

While some of these findings may seem obvious at first glance, the implications are profound. Difficulties with student engagement cannot be explained away by student characteristics such as socioeconomic status, prior academic achievement, school readiness, or parental involvement. Rather, what happens in the classroom—the instructional choices made by teachers in the context of the expected curriculum—has a powerful influence on the interest, effort, and learning of students.

What Intellectual Engagement looks like

in an engagement-based classroom:	in a compliance-based classroom:
Teachers ask questions where there are many possible answers; there is a variety of evidence of student learning.	Teachers ask questions where there is generally one right answer.
Instruction focuses on connecting ideas to deepen understanding.	Instruction focuses on isolated skills to master.
Teachers use classroom discussion and/or inquiry-based instruction.	Teachers use lectures or "drill and kill" instruction.
Instruction provides opportunities for students to think critically and use their imaginations.	Instruction pushes students to use the "right" way to achieve the "right" answer, rather than looking at multiple perspectives of an issue.
Students are encouraged to set their own learning	Students are told when/what they will learn with no

flexibility.

Emotional Engagement

agendas.

Emotional engagement refers to a student's feelings toward learning, school, teachers, and classmates; it looks at students' identification and feelings of belonging. Studies have found that students' emotional engagement is likely to impact their academic success (Reyes, Brackett, Rivers, White, and Salovey, 2012). The culture and emotional climate of school has also been shown to make a difference in student engagement; according to Finn & Voelkl (1993), student engagement is enhanced when students identify themselves as a member of the school community.

Inspired Teachers may:
work with their students to create
graphic emotion continuums to
aid students in both identifying
and constructively sharing their
emotions; find creative ways to
connect students from different
backgrounds to strengthen the
classroom community.

Studies have found that students want to be in classrooms where they feel supported, actively build community in the classroom, and experience engaging instruction as the primary strategy for classroom management. In a study by Howard (2001), 17 students in a large urban northwestern US city were selected to report their perceptions and interpretations of teachers who were identified as culturally responsive to African-American students. The most frequently-mentioned attribute was their teachers' willingness to care about them and bond with them. Other frequently-mentioned characteristics of effective teachers were the ability to build community and efforts to make learning interesting. This study demonstrates the links among positive student-teacher relationships, student engagement, and effective instruction.

Similarly, a study of a social-emotional curriculum created by Yale researchers for 5th and 6th graders found that students in classrooms using this curriculum had higher year-end grades compared to control group students (Brackett, Rivers, Reyes, and Salovey, 2010). Additionally, a study of a school-based social-emotional character development program was found to influence academic outcomes among low-income students in 3rd through 8th grades (Bavarian, Lewis, DuBois, Acock, Vuchinich, Silver, Snyder, Day, Ji, and Flay, 2013).

Whereas the above-cited research demonstrates the benefits of emotional engagement for student learning, neurology research demonstrates the beneficial effects of emotional engagement on the

What Emotional Engagement looks like

in an engagement-based classroom:	in a compliance-based classroom:
Students identify as members of the school community.	Students view school as an obligation, not a community with which to identify.
There is a focus on community building in the classroom.	The classroom does not appear to be a community, but rather a place where students and teachers are forced to be together.
Students build relationships with peers and teachers.	Students are distrustful of and disconnected from peers and teachers.
Students are comfortable seeking support from teachers.	Students fear teachers, and avoid them as much as possible, preferring to seek comfort and support from other sources.

brain. Functional Magnetic Resonance Imaging (fMRI) studies have shown that the stress and anxiety brought on by competitive, noncollaborative activities (e.g. doing a math problem on the board in front of a less-than-supportive class) result in the secretion of hormones that disrupt the neural pathways leading to the brain's memory banks (Willis, 2007). This prevents the incorporation and synthesis of new information (Willis, 2007). Conversely, "when students participate in engaging learning activities in well-designed, supportive cooperative groups, their affective filters are not blocking the flow of information" (Willis, 2007, p. 6). Working with teachers to increase students' emotional engagement through classroom community building is therefore not only wholly compatible with academic rigor; it is an essential part of promoting effective learning.

Physical engagement

Plenty of research recognizes the link between movement and academic performance (Della Valle, J. et al., 1986; Mahar, MT et al, 2006; Jensen 2000). These studies focus primarily on taking movement "brain breaks," and the benefits of physical education and recess. As Harvard Medical School's John Ratey noted, physical exercise "puts the brain of the learners in the optimal position for them to learn" (Ratey, 2008).

According to Howard Gardner's Theory of Multiple Intelligences (1993), one of the ways of "learning and knowing" is kinesthetic intelligence. While many teachers attempt to incorporate multiple

intelligences into their teaching, kinesthetic intelligence remains one of the more difficult for teachers to accomplish because many of the movement-based activities teachers attempt to incorporate fail to connect to the curriculum in meaningful ways (Moran, Kornhaber & Gardner, 2006)—perhaps because they're treated as "brain breaks" but not seen as integral to what is being studied.

While Inspired Teaching believes movement and physical activity are important in and of themselves, we also see a need and a benefit to meaningfully incorporating physical movement into classroom instruction. As Griss (1999) explains, "When students are given an opportunity to 'physicalize' a scientific process, a literary character, or the geographical terrain of a country, learning becomes more tangible, accessible and memorable" (p. 30).

Inspired Teachers may:
use dance to teach science, using
student movement to map out the
paths of electrical currents; teach
a math lesson by having students
use their feet or hands as units of
measurement to determine the
area of the playground.

Susan Griss (2013), an educator who specializes in kinesthetic teaching, or the use of creative movement in the classroom to teach across the curriculum, describes the physical engagement in this way:

When students work together creatively on a more complex level—constructing a tableau (a group body sculpture or frozen scene) or a piece of choreography, for example they are acquiring many skills they will need to be successful adults. They are learning about communication and teamwork, active citizenship, leading and following, taking risks, being accountable, and giving and receiving affirmation. They are learning about their individual responsibility for a successful group effort, and the role the group must play in supporting the needs of individuals. This type of experience also helps to build a genuine learning community, as students become invested in the process and the product. Fundamentally, people who create and perform together simply feel a stronger bond than individuals who sit in separate seats facing a teacher.

Some studies make the explicit connection between incorporating kinesthetic activities in the classroom and students' academic achievement.



For example, Shoval (2011) found that 2nd and 3rd grade students who learned about angles through kinesthetic activities (e.g. using ones arms to create angles of different sizes, or varying the angles at which one throws a ball to ones partner) scored significantly higher on average on the posttest than the lecture and worksheet-taught control group did—despite scoring equivalently on the pretest. There is also evidence that kinesthetic activities increase student interest and willingness to learn; for example, Werner (2001) found that integrating dance and math classes had a significant effect on students' positive attitudes toward math in elementary students.

What Physical Engagement looks like

in an engagement-based classroom:	in a compliance-based classroom:
Opportunities for student movement are thoughtfully integrated into each lesson.	
When developmentally appropriate, students are free to move around the classroom to meet their needs (e.g. to get supplies, go to the bathroom, choose where to sit, etc.)	Students are expected to remain still.
Student movement, connected to the lesson, is viewed as evidence of learning.	Student stillness is viewed as evidence of learning; movement is seen as disruptive.
Reading, writing, note taking, and listening are deeply connected to activities such as measuring, reenacting, building, investigating, puzzling through, debating, and more, as students delve into subject matter.	Students are distrustful of and disconnected from peers and teachers.
Students are comfortable seeking support from teachers.	Students learn subject matter primarily by listening, watching, or reading about the actions of other people.

Behavioral Engagement

Behavioral engagement refers to student behaviors that indicate interest and investment in school, such as students choosing to remain in school, showing up on time, not skipping class, not fighting in school, and turning in homework (Finn, 1993; Finn et al., 1995; Finn & Rock, 1997; Fredricks et al., 2004). It also refers to things that are more difficult to observe, such as putting in effort to receive good grades, paying attention in class, and persisting in the face of difficulties (Connell & Wellborn, 1991; Finn & Rock, 1997; Fredricks et al., 2004; Skinner, Wellborn & Connell, 1990). Longitudinal studies have shown that behavioral engagement in first grade can later be tied to test score gains and decisions whether to drop out of high school (Alexander, Entwisle, & Horsey, 1997).

Goodman (2013) notes that the majority of compliance-based charter school management organizations maintain the belief that students' academic success is "dependent on erecting a highly rule-ordered and regulated environment" (p.89). She uses the term "regulated environment" to refer to a school or charter management organization that relies on a set of policies characterized by continual monitoring, broad regulations, and elaborate systems of reward and punishment, along with a culture that emphasizes individual accountability. These schools are characterized by an insistence on "compliance to pervasive rules that shadow children throughout the day" (p. 89); rules that cover everything from what to wear to how to walk in hallways to how to ask permission to use the restroom. Leaders of these schools feel that time cannot be "wasted," and therefore teachers must exert control over every aspect of a student's day (Goodman, 2013).

To ensure compliance, these schools utilize reward systems for behavior (e.g. points, gold stars, pizza parties), and students learn how to meet adult expectations in return for rewards. Some schools even participate in shaming of students who do not behave as expected. Examples include isolating rule-breaking students from their peers during lunch time, publicly humiliating them by forcing them to wear their school t-shirts inside out, and even stripping students of the right to wear their school uniforms at all (Lack, 2011). These kinds of punishments visibly isolate students from the



school community, and make them vulnerable to teasing and shunning. Additionally, these are examples of extrinsically motivated behavior, or engaging in an activity to obtain an outcome that is separate from the activity itself. However, studies on students' motivation show that these types of controlling environments decrease students' interest, inclination for challenging work, and persistence (Deci and Ryan, 1987; Grolnick and Ryan, 1987; Ryan and Grolnick, 1986).

According to self-determination theory (Ryan & Deci, 2007), schools that place too much emphasis on control, rewards, and competition can hinder self-motivation. In contrast, Inspired Teaching believes in intrinsic motivation, or engaging in an activity for its own sake. These "autonomy-supportive environments" have been found to lead to academic competence, school achievement, increased creativity, and higher well-being (Beghetto, 2005; Grolnick, Ryan, & Deci, 1991; Soenens & Vansteenkiste, 2005). For example, studies have shown that tapping learners' intrinsic motivation pushes them to work harder and learn more. In the San Francisco Bay area, contextualization, personalization, and choice all produced a dramatic increase in students' motivation, engagement, and learning. In a study by Cordova and Lepper (1996), 72 fourth- and fifth-grade students participated in one of two versions of a computer-based lesson. Those who were exposed to engaging activities, including personalizing the content for students and providing choice over several aspects of the activity, displayed higher levels of intrinsic motivation than those who were not.

Engaged students became more deeply involved in the learning activity and attempted to use more complex operations for problem solving, and thereby learned more from the activities in a fixed period of time. Likewise, students who were offered choices about their learning showed greater increases in motivation and set higher academic goals for themselves. Additional studies have also shown that students who are provided with meaningful choices in the classroom have increased engagement (Allen et al., 1994; Anderman & Midgley, 1998).

In a literature review of dozens of self-determination studies, Guay, Ratelle & Chanal (2008) drew the conclusion that "the more students endorse autonomous forms of motivation, the higher their grades are, the more they persist, the better they learn, and the more they are satisfied and experience positive emotions at school"(p. 237). Reeve (2002; 2006) found that teachers who adopt a teaching style supportive of student autonomy have been found to foster students'

intrinsic motivation. Thus, teaching in a way that is supportive of autonomy and intrinsic motivation can be taught; Inspired Teaching has done this for over 20 years. In its professional development offerings, rather than "delivering" training, Inspired Teaching collaborates with teachers to shift their practice away from a compliance-based model of information transmission, and towards an engagement-based model that encourages student autonomy and inquiry. Inspired Teaching believes that engagement in the learning process is not only critical for children; it is also essential for teachers who are undergoing professional development to improve their craft. When teachers themselves are intrinsically motivated and engaged in the teaching process, it is far more likely that they will teach in a way that nurtures intrinsic motivation within students, thereby eliminating the need for harsh, teacher-determined disciplinary procedures.

What Behavioral Engagement looks like

in an engagement-based classroom:	in a compliance-based classroom:
Students try hard due to intrinsic motivation, resulting from innate curiosity and a deep desire to learn.	Students try hard due to external motivation, either so they can get a reward (points, candy, etc.), or so they can avoid punishment.
The teacher believes that learning happens when classrooms are filled with curious, joyful energy.	The teacher believes that learning happens when classrooms are quiet and controlled.
Behavior management is focused on restorative justice, natural/logical consequences, conversation, and questioning.	Behavior management is focused on teacher administered rewards and consequences.
Classroom norms are established in collaboration with students with the purpose of establishing a classroom community.	Classroom norms are set by the teacher or school with the goal of getting students to behave.
The teacher uses proactive behavior management.	The teacher uses reactive behavior management.
Students learn through productive struggle and purpose, persistence, and action.	Students are presented information and told to memorize it.

Recommendations

In light of the extensive research showing the benefits of engagement-based over compliance-based education, Center for Inspired Teaching offers the following recommendations to education policymakers in the areas of pre-service teacher preparation, in-service professional development, and teacher evaluation:

- Teachers should be trained the way we want them to teach kids. Initial teacher preparation training and ongoing professional development should be intellectually, emotionally and physically engaging to ensure that their classroom teaching is as well. For example, in its professional development offerings, rather than "delivering" training, Inspired Teaching collaborates with teachers to shift their practice away from a compliance-based model of information transmission, and towards an engagement-based model that encourages student autonomy and inquiry. When teachers themselves are intrinsically motivated and engaged in the teaching process, it is far more likely that they will teach in a way that nurtures intrinsic motivation within students, thereby eliminating the need for harsh, teacherdetermined disciplinary procedures and fully teacher-directed and teacher-centered learning.
- Create an environment that supports mutual respect. Establish classroom community; get to know students, and have students get to know one another, so students feel supported by teachers, administrators and peers. Explicitly teach social-emotional skills as part of curriculum. Establish classroom norms in collaboration with students with the purpose of establishing a classroom community. This should also be reflected in schools' disciplinary codes and the presence of structures such as morning meeting or advisory. Invest in the school culture and community. Engage the school community and larger community in efforts to build social-emotional bonds and deepen students' sense of belonging. Allow and encourage students to identify themselves

as members of the school community. Focus behavior management on restorative justice, natural/logical consequences, conversation, and questioning.



- Encourage play. Embrace recess. Bring play-based learning into classrooms at every grade level. Utilize teacher evaluation tools that value physical (and social-emotional) engagement as much as intellectual engagement.
- Connect student work to students' lives so students don't have to be told why what they learn is important; they will be able to see it for themselves. Use real-life scenarios in learning situations, have students set their own learning agenda, focus on creativity and collaboration in the classroom, and engage in small group work and discussion. This ensures that students are connected to what they are learning and serves as a way to provide opportunities for multiple forms of evidence of student learning so that test scores are not the only source of data.
- Build intrinsic motivation, not extrinsic motivation. Instead of motivating students by external rewards or teacher demands, cultivate curiosity and love of learning in students. Schools that place too much emphasis on control, rewards, and competition can hinder self-motivation.

Conclusion

As previously described, research shows that students of all ages learn best when they are fully engaged with complex, interesting problems. In order to strengthen their communities and eventually succeed in the workforce, young people need to build critical thinking and imaginative problem solving skills. They need to engage in "deeper learning" that empowers them to apply skills to new problems they've never faced before, engaging in independent problem solving rather than parroting information within familiar frameworks (Pellegrino et al., 2012).

The desire to learn is a powerful innate drive that should be respected in all learners. When we embrace this constructivist philosophy, the primary challenge of education shifts from demanding student compliance to ensuring authentic student intellectual, emotional, physical, and behavioral engagement in learning. Inspired Teaching works to ensure that all schools embrace engagement-based practices that make the most of children's innate desire to learn.

We need to rethink how young people spend their time in school and how we ask teachers to do their jobs. Center for Inspired Teaching's bold vision is for every child to learn how to think, instead of being told what to think. Research shows that the way to empower young learners to achieve this goal is through engagement-based classrooms; the time is now for our education policies to make this a reality.

Works Cited

Alexander, K., Entwisle, D., & Carrie Horsey. (1997). From first grade forward: Early foundations of high school dropout. *Sociology of Education 70*(2), pp. 87-107.

Allen, J. P., Kuperminc, G., Philliber, S., & Herre, K. (1994). Programmatic prevention of adolescent problem behaviors: The role of autonomy, relatedness, and volunteer service in the Teen Outreach Program. *American Journal of Community Psychology*, 22(5), 595-615.

Anderman, L. H., & Midgley, C. (1998). Motivation and middle school students [ERIC digest]. Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. Retrieved June 25, 2002.

Appleton, J. J., Christenson, S. L. and Furlong, M. J. (2008), Student engagement with school: Critical conceptual and methodological issues of the construct. *Psychology in the Schools*, 45, 4369–386

Bavarian, N., Lewis, K., DuBois, D., Acock, A., Vuchinich, S., Silver, N., Snyder, F., Day, J., Ji, P., and Flay, B. (2013). Using social-emotional and character development to improve academic outcomes: A matched-pair, cluster-randomized controlled trial in low-income, urban schools. *Journal of School Health 83*(11), 771-779.

Beghetto, R. A. (2005). Does assessment kill student creativity?. *The educational forum.* 69(3), 254-263.

Brackett, M., Rivers, S., Reyes, M., and Salovey, P. (2012). Enhancing academic performance and social and emotional competence with the RULER feeling words curriculum. *Learning and Individual Differences 22*(2), 218-224.

Brackett, M. A., Rivers, S. E., Reyes, M. R., & Salovey, P. (2010). Using emotional literacy to improve classroom social-emotional processes. In WT Grant/Spenser Grantees' Meeting, Washington, DC.

Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In M. Gunnar & L. A. Sroufe (Eds.), *Minnesota Symposium* on *Child Psychology (Vol. 23)*. Chicago: University of Chicago Press.

Cordova, D. & Lepper, M. R. (1996). Intrinsic Motivation and the Process of Learning: Beneficial Effects of Contextualization, Personalization, and Choice. *Journal of Educational Psychology 88* (4):715-730.

Dennis, J. & O'Hair, M.J. (2010). Overcoming Obstacles in Using Authentic Instruction: A Comparative Study of High School Math and Science Teachers. *American Secondary Education*. 38(2), 4-22.

Deci, E. L. (1975). *Intrinsic motivation*. New York: Plenum.

Deci, E. L. & Ryan, R. M. (1987). The support of autonomy and control of behavior. *Journal of Personality and Social Psychology* 53(6), 1024-1037.

Della Valle, J., Dunn, K., Dunn, R., Geisert, G., Sinatra, R., Zenhausern, R. (1986). The effects of matching and mismatching students' mobility preferences on recognition and memory tasks. *Journal of Education Research* 79(5), 267–272.

Finn, J. D. (1993). School engagement and students at risk. Washington, DC: National Center for Education Statistics.

Finn, J. D., Pannozzo, G. M., & Voelkl, K. E. (1995). Disruptive and inattentive withdrawn behavior and achievement among fourth graders. *Elementary School Journal*, *95*, 421-454.

Finn, J. D., & Rock, D. A. (1997). Academic success among students at risk for school failure. *Journal of Applied Psychology*, 82, 221-234.

Finn, J. D. & Voelkl, K. E. (1993). School characteristics related to student engagement. Journal of Negro Education 62(3): 249-268.

Fredricks, J.A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research* 74(1), 59-109.

Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences*, 111(23), 8410-8415.

Furgeson, J., B. Gill, J. Haimson, A. Killewald, M. McCullough, and I. Nichols-Barrer. (2011). Charter School Management Organizations: Diverse Strategies and Diverse Student Impacts. Mathematica Policy Research and The Center on Reinventing Public Education.

Gallup. (2015). 2015 Gallup student poll: Engaged today, ready for tomorrow. Retrieved from http://www.gallupstudentpoll.com.

Gardner, H. (1993). Frames of mind: The theory of multiple intelligences (10 anniversary ed.). New York, NY: Basic Books.

Goodman, J. F. (2013). Charter management organizations and the regulated environment: Is it worth the price? *Educational Researcher 42*(2), 89-96.

Greene, B. A. (2015). Measuring cognitive engagement with self report scales: Reflections from over 20 years of research. *Educational Psychologists*, *50*(1), 14-30.

Griss, S. (1999). Reading, writing, and jumping around. *Smith Alumnae Quarterly*. Retrieved from http://mindsinmotion.org/brassfeather/uploads/2013/07/Smith-College-Quarterly.pdf

Griss, S. (2013). Everybody, Stand Up! The Power of Kinesthetic Teaching and Learning. *Independent Teacher Online*. Retrieved from: http://www.nais.org/Magazines-Newsletters/ITMagazine/Pages/Everybody-Stand-Up.aspx

Grolnick, W. S., & Ryan, R. M. (1987). Autonomy in children's learning: An experimental and individual difference investigation. *Journal of Personality and Social Psychology*, 52, 890-898.

Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). Inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of educational psychology*, 83(4), 508.

Guay, F., Ratelle, C. F., & Chanal, J. (2008). Optimal learning in optimal contexts: The role of self-determination in education. *Canadian Psychology/Psychologie canadienne*, 49(3), 233.

Howard, T. (2001). Telling their side of the story: African American students' perceptions of culturally relevant teaching. *The Urban Review 33* (2):131-149.

Jensen, E. (2000). *Learning with the body in mind.* San Diego: The Brain Store.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal* 33(4), 692-724.

Klem, A. M. and J. P. Connell. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health*, 74(4), 1-47.

Lack, B. (2011). Anti-Democratic Militaristic Education: An Overview and Critical Analysis of KIPP Schools. *Counterpoints*, 402, 65-90.

Lepper, M. R. & Greene, D. (1975). Turning play into work: Effects of adult surveillance and extrinsic rewards on children's intrinsic motivation. *Journal of Personality and Social Psychology*, 31(3), 479-486.

Mahar, M.T., Murphy, S.K., Rowe, D.A., Golden, J., Shields, A.T., Raedeke, T.D. (2006). Effects of a classroom-based program on physical activity and on-task behavior. *Medicine & Science in Sports & Exercise* 38(12), 2086–2094.

Marks, H.M. (2000). Student engagement in instructional activity: patterns in the elementary, middle, and high school years. *American Education Research Journal 37*(1): 153-184.

Moran, S., Kornhaber, M. and Gardner, H. (2006). Orchestrating multiple intelligences. *Educational Leadership* 64(1), 22-27.

Nystrand, M. & Gamoran, A. (1989). *Instructional discourse and student engagement*. National Center on Effective Secondary Schools.

Pellegrino, J. W. & Hilton, M. L. (2012). Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century. Washington, DC: National Academies Press.

Plucker, J. A., Kaufman, J. C., & Beghetto, R. A. (2015). What We Know About Creativity (4Cs Research Series). P21: Partnership for 21st century learning. Retrieved from http://www.p21.org/storage/documents/docs/Research/P21_4Cs_Research_Brief_Series_-_Creativity.pdf.

Ratey, J. (2008). Spark: The revolutionary new science of exercise and the brain. New York: Little Brown and Company.

Reeve, J. (2002). Self-determination theory applied to educational settings. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 183-203). Rochester, NY, US: University of Rochester Press.

Reeve, J. (2006). Teachers as facilitators: What autonomy-supportive teachers do and why their students benefit. *The Elementary School Journal*, 106(3), 225-236.

Reyes, M., Brackett, M., Rivers, S, White, M., and Peter Salovey. 2012. Classroom Emotional Climate, Student Engagement, and Academic Achievement. Journal of Educational Psychology, 104(3), 700–712.

Rodgers, D. B. (1998). Supporting Autonomy in Young Children. *Young Children*, 53(3), 75-80.

Ryan, R. M., & Deci, E. L. (2007). Active human nature: Self-determination theory and the promotion and maintenance of sport, exercise, and health. *Intrinsic motivation and self-determination in exercise and sport*, 1-19.

Ryan, R. M., & Grolnick, W. S. (1986). Origins and pawns in the classroom: Self-report and projective assessments of individual differences in children's perceptions. *Journal of personality and social psychology*, 50(3), 550.

Ryan, R. M., & Grolnick, W. S. (1986). Origins and pawns in the classroom: Self-report and projective assessments of individual differences in children's perceptions. *Journal of Personality and Social*

Psychology, 50(3), 550-558.

Savoie, J. M. & Hughes, A. (1994). Problem-based Learning as Classroom Solution. *Educational Leadership*, *52*(3): 54-57.

Schacter, J., Thum, Y. M. and Zifkin, D. (2006), How Much Does Creative Teaching Enhance Elementary School Students' Achievement?. *The Journal of Creative Behavior, 40*(1), 47–72.

Shoval, E. (2011). Using mindful movement in cooperative learning while learning about angles. *Instructional Science*, 39(4), 453-466.

Skinner, E. A., Wellbom, J. G., & Connell, J. P. (1990). What it takes to do well in school and whether I've got it: The role of perceived control in children's engagement and school achievement. *Journal of Educational Psychology, 82*(1), 22-32.

Soenens, B., & Vansteenkiste, M. (2005). Antecedents and outcomes of self-determination in three life domains: The role of parents' and teachers' autonomy support. *Journal of Youth and Adolescence*, 34(6), 589–604.

Thompson, S., McDonald, A., & Sterbinsky, A. (2005). KIPP DIAMOND Academy: Year Three (2004-2005) Evaluation Report. Center for Research in Educational Policy (CREP).

Werner, L. (2001). Changing student attitudes toward math: Using dance to teach math. Minneapolis, MN: The Center for Applied Research and Educational Improvement, University of Minnesota. ERIC Document Reproduction Service No. ED482650.

Wigfield, A., Guthrie, J. T., Perencevich, K. C., Taboada, A., Klauda, S. L., McRae, A., et al. (2008). Role of reading engagement in mediating effects of reading comprehension instruction on reading outcomes. *Psychology in the Schools, 45*(5), 432–445.

Willis, J. (2007). Cooperative Learning is a Brain Turn-On. *Middle School Journal*, 38(4),4-13.

Wilms, J. D., Friesen, S., & Milton, P. (2009). What did you do in school today? Transforming classrooms through social, academic and intellectual engagement. (First National Report). Toronto: Canadian Education Association.

Zyngier, D. (2008). (Re)conceptualizing student engagement: Doing education not doing time. *Teaching and Teacher Education*, 24(7), 1765-1776.