

Student Motivation— An Overlooked Piece of School Reform



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Almost everyone knows someone who overcame early hardships to achieve an impressive level of success in school and later life. Most of us also know young people with great early promise who were lackadaisical students and floundered after leaving school. Often the crucial factor that accounts for cases like these is the students' own motivation to learn. Motivation is a central part of a student's educational experience from preschool onward, but it has received scant attention amid an education reform agenda focused mainly on accountability, standards and tests, teacher quality, and school management. Education reform could benefit from a robust conversation about the overlooked element of student motivation.

This summary report by the Center on Education Policy (CEP) pulls together findings from a wide array of studies on student motivation by scholars in a range of disciplines, as well as lessons from programs around the country intended to increase motivation. This is not meant to be a comprehensive review of the research or programs on this broad and complex topic. Rather, it is intended to start a conversation about the importance of motivation and the policies and practices that might better engage students in learning. The information in this summary is distilled from a series of six background papers by CEP, available at www.cep-dc.org. The background papers focus on the following aspects of student motivation:

1. What is motivation and why does it matter?
2. Can money or other rewards motivate students?
3. Can goals motivate students?
4. What roles do parent involvement, family background, and culture play in student motivation?
5. What can schools do to motivate students?
6. What nontraditional approaches can motivate unenthusiastic students?

Most of the findings in this summary are based on multiple sources, for which the specific citations can be found in the appropriate CEP background paper for that topic. Where a particular study, statistic, or quotation is referred to in this summary, the source is cited and included in the reference list at the end of this paper.

Motivation is a central part of a student's educational experience from preschool onward, but it has received scant attention amid an education reform agenda focused mainly on accountability, standards and tests, teacher quality, and school management.

What Is Motivation and Why Does It Matter?

If students aren't motivated, it is difficult, if not impossible, to improve their academic achievement, no matter how good the teacher, curriculum or school is.

Motivation can affect how students approach school in general, how they relate to teachers, how much time and effort they devote to their studies, how much support they seek when they're struggling, how they perform on tests, and many other aspects of education. If students aren't motivated, it is difficult, if not impossible, to improve their academic achievement,

no matter how good the teacher, curriculum or school is. Moreover, unmotivated students can disengage other students from academics, which can affect the environment of an entire classroom or school.

Higher motivation to learn has been linked not only to better academic performance, but to greater conceptual understanding, satisfaction with school, self-esteem, social adjustment, and school completion rates. Motivation often declines as students progress from elementary through high school. Upwards of 40% of high school students are disengaged from learning, are inattentive, exert little effort on school work, and report being bored in school, according to a 2004 analysis by the National Research Council. The lack of motivation has serious consequences. For example, in a 2006 survey exploring why students dropped out of school, 70% of high school dropouts said they were unmotivated (Bridgeland, DiJulio & Morison, 2006).

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Motivation is difficult to define and measure, but scholars generally recognize two major types of motivation: intrinsic and extrinsic. *Intrinsic* motivation is the desire to do or achieve something because one truly wants to and takes pleasure or sees value in doing so. *Extrinsic* motivation is the desire to do or achieve something not so much for the enjoyment of the activity itself, but because it will produce a certain result. The difference between the two is more like a spectrum than a divide; any action can be motivated by a combination of intrinsic and extrinsic factors, and the same person may be motivated differently in different contexts.

Students' beliefs can affect their motivation. For example, students who believe they have a limited capacity to learn or feel they are unlikely to succeed often have problems with motivation. In a similar vein, students who conceptualize intelligence as a fixed quantity that one either has or doesn't have tend to be less motivated than students who view knowledge as something that can change and grow.

Researchers generally agree on four major dimensions that contribute to student motivation, shown in the box below. At least one of these dimensions must be satisfied for a student to be motivated. The more

dimensions that are met, and the more strongly they are met, the greater the motivation will be.

Four Dimensions of Motivation

- **Competence** — The student believes he or she has the ability to complete the task.
- **Control/autonomy** — The student feels in control by seeing a direct link between his or her actions and an outcome and retains autonomy by having some choice about whether or how to undertake the task.
- **Interest/value** — The student has some interest in the task or sees the value of completing it.
- **Relatedness** — Completing the task brings the student social rewards, such as a sense of belonging to a classroom or other desired social group or approval from a person of social importance to the student.

Sources: Bandura, 1996; Dweck, 2010; Murray, 2011; Pintrich, 2003; Ryan & Deci, 2000; Seifert, 2004

The interplay of these dimensions—along with other dynamics such as school climate and home environment—is quite complex and varies not only among different students but also within the same student in different situations. Still, this basic framework can be helpful in designing or analyzing the impact of various strategies to increase students' motivation.

Can Money or Other Rewards Motivate Students?

Some schools and districts have sought to motivate students to work harder by providing them with money or other rewards. Examples include programs that give cash to students for earning good grades, reading books, attending after-school study sessions, demonstrating good attendance and behavior, or attaining a passing score or higher score on an important exam. Examples of non-cash rewards include giving cell-phones and phone minutes to students for good behavior, test scores, attendance, or homework completion; giving pizza coupons to students who make good grades; or awarding students who make the honor roll with certificates they can use for special privileges like an early release from school. This concept of providing rewards as motivation is controversial, and the results of these programs are mixed, or in some cases unevaluated.

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Proponents of using rewards to motivate students contend that these programs can help bring balance to an educational system that expects students to exert effort up front for the promise of rewards that are delayed or difficult to grasp. Moreover, some proponents note, rewards have long been a part of education (think gold stars) and can help level the playing field for low-income students whose parents lack the means to offer them incentives for academic success. Some advocates argue that pursuing a reward can change students' behaviors in positive ways for the duration of the reward program and perhaps after the reward ends. Others point out that rewards may be the only way to motivate students to apply themselves to tasks that have no value to them, such as taking standardized tests that have no consequences for students but are important for their school.

Rewarding specific actions that students can control, such as completing homework, yields better results than rewarding accomplishments that may seem beyond their reach or out of their control, such as whether they earn an A grade.

Many opponents, for their part, contend that rewarding students for desirable behavior runs counter to the true goal of education, which should be to develop students' curiosity and intrinsic love of learning. Some argue that when the reward program ends, students no longer have a reason to continue their behavior. Rewarding performance is unfair, some opponents say, because students who are naturally talented will easily earn

rewards, while less talented students may try hard but still not qualify for a reward. Some opponents also point to evidence suggesting that extrinsic rewards can encourage a compliance mentality and decrease intrinsic motivation.

But do reward programs work? Answering this question is complicated by the fact that many such programs have been carried out in just one district, school, or classroom, and even similar programs can be implemented differently in different settings. In addition, it's important to analyze not only what happens to student motivation while the program is in place, but also what happens after the rewards are removed.

In general, studies of reward programs have shown mixed results. For example, a comprehensive study by Harvard economist Ronald Fryer (2011) of differently structured reward programs in four cities found very different outcomes, depending on which behaviors were rewarded and how the programs were designed. Paying students to increase their test scores produced no improvements in test scores or grades, in part because students had little knowledge of how to control their test scores. Paying students for reading books and taking a corresponding quiz produced the best results—a dramatic rise in standardized test scores which continued at about half the rate of gain in the year after the program ended. This latter program targeted the youngest students and paid them for something entirely within their control.

Another study (Raymond, 2008) looked at a diverse group of reward programs in 186 charter schools; the specific rewards and program designs varied, but most of the programs rewarded a combination of academic outcomes and behaviors. The only stable and consistent positive effect across programs was an increase in reading achievement.

The most successful reward systems, this study concluded, used near-continuous assessments of behavior, applied rules consistently, had strong alignment among school personnel, and rewarded behaviors that were under students' control.

Other studies have also found test score gains in reading for students participating in reward programs. Some reward programs have also yielded improvements for some participants in scores on college entrance exams or other standardized tests, although these gains were mostly small, and there is little evidence that they were sustained in the long-term. Few studies have followed the effects on students for years after a reward program ends.

On the whole, research shows that reward programs can have positive effects if they are implemented thoughtfully, carefully, and within a set of guidelines, and if they address the four dimensions of motivation mentioned above. For example, rewarding students for mastery of a discrete task, skill, or subject, such as reading a book or solving a problem, works better than rewarding them for performance, such as reaching a certain benchmark on a test. Rewarding specific actions that students can control, such as completing homework, yields better results than rewarding accomplishments that may seem beyond their reach or out of their control, such as whether they earn an A grade. Rewards that are too large can be counterproductive because students may feel pressured into taking part.

At the same time, poorly designed reward programs can actually decrease motivation if they are targeted at the wrong students, do not build on the four dimensions of motivation, or are implemented ineffectively. Mark Lepper and colleagues found that students who were rewarded for drawing drew more often, but when the reward was removed, they drew less often than they originally had and were less likely to do so purely for pleasure later (Lepper, 1973). Other studies have similarly found that rewarding students for activities they inherently enjoy can decrease motivation. Finally, students who were given a financial reward for solving a series of problems had a more difficult time when they had to solve problems that required a different strategy, suggesting the reward had undermined their "cognitive flexibility" (Rigby et al., 1992).

Can Goals Motivate Students?

Students who are not motivated by love of learning alone may do better in school if they can see learning as a gateway to something else they value. Research suggests that goals can help motivate students to work harder if certain conditions are present. The goal should be realistic, achievable, and education-dependent. The goal should be suggested, or at least embraced, by the student, and the student must be able to see a clear path for attaining the goal. It also helps if the goal is supported by people important to the student.

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Mastery-based goals, which involve demonstrating increased understanding, skills, and content knowledge, are preferable to performance-based goals, which involve reaching a pre-defined level of performance or outperforming others. Goals can actually undermine motivation, however, if they are too difficult, or if students feel that a goal has been imposed on them or that failing to meet it would have dire consequences.

Two common goals in education—passing assessments and getting into college—provide a useful lens for examining motivation.

While programs that simply encourage students to attend college have had some limited success, the most positive results have been found in programs that helped students understand what they needed to do to get into college and provided them with counseling, academic support, and other services to enable them to succeed at each step along the way.

Most assessments appeal to students' extrinsic rather than intrinsic motivation. Some assessments provide direct extrinsic goals for students, such as passing a course or gaining admission to a competitive college. Other assessments, particularly those used for school accountability, provide extrinsic goals for teachers and administrators, who may pass along the pressure of these goals to students. There are high-stakes and low-stakes assessments, as well as classroom and external assessments, that together comprise a continuum of motivation.

Assessments with high stakes for students—from a classroom test that counts for a major portion of a course grade to an external state exit exam that students must pass to graduate from high school—are generally considered more motivating than those with low stakes or no stakes, but this is not always clear-cut. While high-stakes assessments do spur some students to work harder, they can have a negative effect on the motivation of other students by evoking anxiety, frustration, or fear of failure. And while some instructional practices used to prepare students for high-stakes external assessments, such as providing extra help for low-achieving students, would generally be considered positive, other types could decrease students' interest and motivation. Examples of the latter type include the elimination of interesting and valuable content to make more time to teach material likely to be tested or an excessive emphasis on drill-and-practice instruction.

As currently implemented, most high-stakes assessments encourage a performance-based mindset rather than the more motivating mastery-based mindset. Of course, assessments serve other useful purposes, such as providing information about how well students are learning and which students need help. But if assessments are to be used as a motivational tool, it's important to consider which types of assessments can provide useful information about students' learning and are aligned most closely with the key dimensions of motivation discussed above. Motivational theory suggests that assessments that reward growth and effort encourage a mastery-based mindset and therefore have a stronger motivational effect. More frequent assessments that start with easier goals and gradually increase in difficulty can build students' competence and sense of control, as can oppor-

tunities for students to demonstrate their knowledge with performance tasks or low-stakes tests before taking an assessment that counts.

Several programs have sought to improve the motivation of elementary and secondary students by encouraging them to aspire to college. For example, some philanthropists have promised to pay for college for any student in a particular class who meets admission criteria. Other programs have taken a more comprehensive approach by providing at-risk students with a range of supports to create a "college-bound climate" in elementary and secondary schools. These supports vary but may include specialized college counseling, tutoring and encouragement to complete the necessary coursework, visits to college campuses, assistance with applications, and funds to cover college entrance exams.

Studies of these programs indicate that postsecondary education can be a motivating goal if students receive supports that address the four dimensions of motivation mentioned earlier. While programs that simply encourage students to attend college have had some limited success, the most positive results have been found in programs that helped students understand what they needed to do to get into college and provided them with counseling, academic support, and other services to enable them to succeed at each step along the way. The goal of postsecondary education is also more motivating if students can see for themselves the value of attending college and if their peers and respected adults support this goal.

What Roles Do Parents, Family Background, and Culture Play in Student Motivation?

Many studies have documented the strong relationship between family background factors, such as income and parents' educational levels, and student achievement, and the positive impact of parent involvement on achievement. A much smaller body of research looks specifically at how various family background and cultural factors, as well parents' attitudes and actions, can affect children's motivation to learn and succeed in school.

Reading to children, talking with children about what they read, interacting with children about academics, and celebrating moments of intellectual discovery are among the activities that promote achievement and motivation.

Parents who are actively involved in their children's education and provide a stimulating learning environment at home can help their children develop feelings of competence, control, curiosity, and positive attitudes about

academics, according to various studies. Reading to children, talking with children about what they read, interacting with children about academics, and celebrating moments of intellectual discovery are among the activities that promote achievement and motivation.

Parents' beliefs and expectations also appear to strongly influence children's motivation. For example, parents who hold high expectations for their children's learning, believe in their children's competence, expose them to new experiences, and encourage curiosity, persistence,

and problem-solving can help their children develop an intrinsic motivation to learn. By contrast, parents who are controlling, use rewards and punishments for academic performance, or display negativity or anger about academics can discourage children from developing intrinsic motivation. Some parental actions, such as praising children's intelligence rather than their mastery of knowledge and skills, can send a message that intelligence is a fixed attribute—a belief that can lead children to avoid challenges or fear failure.

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Creating a home environment that nurtures motivation involves effort for any parent, but it can be especially problematic for socioeconomically disadvantaged families—those with limited financial resources, low educational levels, single-parent homes, and other stresses. Much attention has been devoted to achievement gaps between students from low-income and higher-income families, and between students of different racial/ethnic backgrounds. Similar gaps have also been found between disadvantaged and advantaged children in non-cognitive or “soft” skills that are critical to success in school and later life—including motivation, self-regulation, and self-esteem, as well as the abilities to work with others, focus on tasks, and defer gratification (Heckman, 2011). Like achievement gaps, these soft skill gaps emerge before children start school and persist as they progress through school. For example, one study found that students from families with high socioeconomic status (SES) tended to approach academic challenges with a greater sense of internal control over success than students from low-SES families (Young et al., 2011).

Although the causes of gaps in achievement or soft skills are not fully understood, some studies have suggested that differences in parenting practices and social context are contributing factors. Children born into socioeconomically disadvantaged circumstances, particularly single-parent homes, are less likely to have the opportunity to benefit from the kinds of parental attention, activities, and resources that stimulate these skills (McLanahan, 2004). As summarized by Heckman, disadvantaged mothers, as a group, “talk to their children less and are less likely to read to them daily . . . [and] tend to encourage their children less, adopt harsher parenting styles, and be less engaged with their children's school work” (Heckman, 2011, p. 80). In other words, children from disadvantaged families tend to have fewer opportunities at home that foster competence, encourage them to find interest or see value in learning, promote autonomous learning, or develop social relationships that support and value achievement.

Differences in parenting practices among low-SES or racial/ethnic groups are partly explained by disparities in social and material resources, such as disparities in income and accumulated wealth, parents' level of schooling and academic skills, and access to social networks and institutions that control information or can provide assistance.

These research findings do not mean that children from disadvantaged families are doomed to skill gaps and low academic motivation.

A variety of programs have been put in place to help low-SES and minority parents create supportive home environments, share successful strategies, and encourage their children to see academic achievement as a meaningful and realistic part of their group identity. According to Ferguson (2007), some parenting intervention programs have produced moderately large achievement gains even in rigorous trials. But actions to address children's beliefs about learning and foster supportive parenting must begin early and cannot be accomplished by schools alone. The solution, some experts suggest, is not to blame parents for gaps in skill development but instead to provide disadvantaged families with the broad range of resources necessary to prevent these gaps from forming in the first place.

Another line of research has explored racial, ethnic, and cultural differences in students' attitudes that may influence children's motivation to succeed in school. Findings from these studies are often hotly debated, and recent analyses that look at current conceptions of motivation through the lens of race, ethnicity, or culture are limited.

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Some scholars, for example, have suggested that “stereotype threat,” or a fear that poor performance on tasks may confirm negative racial stereotypes, can undermine the competence of African American students—or any other group faced with a task that can invoke a damaging stereotype (Steele & Aronson, 1995; Aronson & Steele, 2005). They note that stereotype threat can dampen students' competence by heightening their anxiety, depleting their self-regulation skills, or spurring them to avoid challenges.

Other researchers have conjectured that a desire to maintain a distinct cultural identity in opposition to the dominant group can negatively affect academic motivation—most notably, when high-achieving African American students are accused by their peers of “acting white” (Fordham & Ogbu, 1986; Fryer & Torelli, 2010). But this conclusion has been challenged by researchers who cite evidence that both African American and white students want to succeed in school and that high-achieving students share similar experiences and challenges, regardless of their race (Tyson, Darity, & Castellino, 2005).

Several studies have explored how social and cultural context can have a bearing on students' motivations or aspirations. For example, some researchers assert that experiences with or perceptions of discrimination can damage the confidence of students of color and contribute to academic disengagement (Graham & Hudley, 2005). Others maintain that social context can lead some children to perceive that certain type of behaviors, such as spending time on homework, are pointless and “not for people like me” (Oyserman & Destin, 2010, p. 1002).

Findings with relevance to both the parenting and cultural aspects of motivation come from research that explores why Asian American students as a group have high academic achievement. Studies have found that, in general, Asian American students tend to attribute academic outcomes to effort more than innate ability, a belief that is associated with intrinsic motivation. Research has also found that

Asian American parents, on average, have higher academic expectations of their children than do parents of other groups, and that parental pressure and a desire to meet high parental expectations appear to be primary catalysts of motivation among Asian American students (Eaton & Dembo, 1997). At the same time, stereotypes that all Asian Americans are high achievers can negatively affect the motivation of some Asian American students by making them anxious about living up to this perception (Graham & Hudley, 2005).

What Can Schools Do to Better Motivate Students?

Schools play an important role in boosting student motivation by picking up where parents leave off or stepping in when parents are unable or reluctant to be actively involved. Various elements of schooling, from teachers' interactions with students to school organization, can have an impact on student motivation.

School-based efforts to improve student motivation generally fall into one of three categories: targeted intervention programs for students at risk, programs focused on teachers as motivators, and efforts to reorganize schools.

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Targeted intervention programs identify students who are at risk of dropping out or who show other indicators of lagging motivation, such as poor attendance or a failure to complete assignments. The goal is to rekindle students' interest in school before they disengage for good. Examples of the many types of targeted

interventions used by districts and schools include the following:

- An Ohio program for boys at risk of dropping out provided personal motivators, participation in special extracurricular activities, and close monitoring of students' progress by a school-community team. After the first year of the program, participants' grade promotion and attendance rates increased and suspension rates decreased (Hoke, 2008; Stephens, 2008).
- A program in the Baltimore City Public Schools identified why chronically absent students were missing school and responded with individualized interventions, such as mentors, home visits, meetings with parents, and involvement of service providers if necessary. The percentage of chronically absent students declined, dropout rates decreased, and the graduation rate increased (Sundius & Fothergill, 2010).
- Districts in several states have instituted Performance Learning Centers, a model developed by the Communities in Schools network. These centers combine small classrooms with an online curriculum and teacher support and serve students who have poor attendance, academic difficulties, or low motivation in traditional classrooms. A study of Performance Learning Centers in Virginia

found that 90% or more of the students who attended these centers passed key state end-of-course exams (Kronholz, 2011).

Programs focused on teachers recognize that teachers can influence students' motivation through their teaching styles, classroom management, interactions with students, and expectations and beliefs. These programs typically provide professional development to help teachers understand and use effective strategies to motivate students. Research has identified several strategies and mindsets of teachers that can positively affect student motivation, such as the following examples:

- Teachers can increase motivation by encouraging students to do their best, setting high expectations, allowing students some choice where possible, and using lessons that involve higher-order thinking, collaboration, and student participation, among other strategies (National Research Council, 2004).
- Teachers who are most effective at diagnosing and improving student motivation tend to focus on interpersonal dealings with students, link education with things students value, and encourage autonomy more than control in their classrooms (Hardré & Sullivan, 2009).
- Students are more motivated by teachers whom they perceive as caring (Wentzel, 1997).
- According to a study of programs that provided intensive professional development to teachers, students were more engaged, performed better, and had higher self-confidence when their teachers emphasized student mastery over grades and performance and encouraged students to take on challenges (Stipek et al., 1998).

Teachers can also increase student motivation by reaching out to parents and encouraging their involvement in their children's education.

Efforts to reorganize schools recognize that how schools are structured—their size, scheduling, climate, student groupings, and other aspects—can affect students' engagement in learning. Schools have tried various redesigns to create more personalized environments and prevent students from falling between the cracks. Examples include breaking large schools into smaller schools or schools-within-schools; “looping” teachers so they stay with the same group of students for two or more years; and adopting block schedules, which allow more class time for individualized or interdisciplinary instruction, project-based learning, and teacher-student and student-student interactions. Some schools have also sought to establish relationships with social service providers to address non-academic needs, such as social and health problems, that can sap motivation or distract students from academics.

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Studies of these efforts at school reorganization show mixed results. While some attempts to create smaller schools have had positive effects on achievement, dropout rates, and school

engagement, others have been less successful. Key factors in successful efforts seem to be the extent to which these schools incorporate personalizing features and ambitious instruction, have student-centered learning environments, and have high expectations for students. In general, school-based reforms to improve student motivation have been most effective when coupled with high-quality curriculum, instruction, assessment, and professional development or with social services.

What Nontraditional Approaches Can Motivate Unenthusiastic Students?

Some students who can't seem to focus on academics can spend hours outside of school on tasks they find engaging, be it video games, art, car repair, or extracurricular activities. Districts, schools, and communities have tried a variety of creative approaches—ranging from integrating community service with academics to incorporating social media into classrooms—to spark an interest in learning among students who don't respond to more traditional strategies.

Examples of nontraditional approaches for motivating students include the following:

- **Inquiry-based learning** provides opportunities for students to acquire knowledge and develop analytical skills by choosing activities that interest them. Instead of presenting material for students to learn, the teacher acts as a supporter and guide, encouraging students to engage in self-directed thinking. Research suggests that this approach has been successful only when certain conditions are met: curriculum should be aligned with the knowledge students are expected to learn and presented in the context of real-world situations; problem-solving should be emphasized; and students should have frequent opportunities for collaboration.
- **Service learning** integrates community service with academic study. Researchers advise that for service learning to be effective it must involve more than community service. It should also be aligned with curriculum and academic standards, incorporate students' opinions, engage students in reflection, and connect curriculum content to problems in the community. In a national survey of service learning participants, students viewed service learning classes as more interesting and worthwhile than traditional classes and felt the program motivated them to work hard (Bridgeland, DiIulio, & Wulsin, 2008).
- **Alternative education programs** provide different learning environments for students who are struggling with academics or have behavioral problems. For example, students might be temporarily removed from their regular schools and placed in a setting that provides additional counseling, behavior and stress management classes, and instruction in study skills and time management, in addition to academic instruction. One study in an urban district found that students who successfully completed an alternative learning program reported increases in motivation, self-esteem, and academic persistence (Nichols & Utesch, 1998).
- **Extracurricular programs** can motivate students by providing them with opportunities to demonstrate skills and build confi-

dence outside the classroom. For example, the Baltimore Kids Chess League gives inner-city students a chance to augment their learning through after-school chess programs, a summer camp, and chess tournaments across the country. Research has shown a connection between participation in extracurricular activities and higher academic achievement, academic aspirations, and attendance, although it is difficult to establish a causal relationship. Participation in extracurricular activities has also been linked to stronger social relationships, greater feelings of confidence, and in some cases lower dropout rates for at-risk students.

- **Creative educational uses of technology** hold promise for increasing motivation for a generation of students who have grown up teaching themselves to communicate online, surf the Web, write blogs, or edit photos. Several characteristics of technology make it especially motivating, some scholars contend. Video games can build a mastery-based mindset by gradually increasing the level of challenge, helping students visualize complex concepts, and giving students frequent positive feedback. Interactive and social media technology can stimulate the interest of bored students and the participation of shy students. Web-based instruction can motivate students by creating more opportunities for active choice and collaboration. Educators around the country are incorporating technology into their teaching and a myriad of ways. Examples include using video games to reinforce concepts in math and science or incorporating Twitter into a real-time discussion board during class. Research on the effects of newer technologies for learning is thin, however, and experts caution that how the technology is used is the most critical factor.

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Cross-Cutting Themes

Our review of research on aspects of student motivation and efforts to improve it reveals several cross-cutting themes:

- Student motivation is not a fixed quality but is something that can be influenced in positive or negative ways by schools, parents, and communities and by individuals' own experiences. Research offers lessons on how and why students are motivated and what types of policies and practices hold promise for improving motivation.
- No single strategy will work to motivate all students. Motivation varies, not only among students but also within the same student depending on the task and context. Motivating students often requires a combination of strategies that address the specific reasons why a student has become disengaged from school.

- Strategies to improve motivation should be implemented carefully and thoughtfully. Effective strategies address some or all of the four dimensions of motivation, including competence, control/autonomy, interest/value, and relatedness. Effective school-based strategies to bolster motivation are often implemented in concert with changes in curriculum and instruction, faculty and student relationships, or school climate and organization.
- Strategies that reward students' mastery and growth appear to be more motivating than those that emphasize the attainment of a specific performance level. Similarly, strategies that encourage perseverance, hard work, exploration, and creativity and that reward behavior within the student's control appear to be more motivating than those that reward talent and intelligence or impose goals that students have not embraced.
- Improving student motivation cannot be accomplished by schools alone. Efforts to develop motivation should begin early and address social factors that can sap motivation. Partnerships among schools, families, and communities can be effective in creating the conditions that develop and support motivation in children.
- Many aspects of motivation are not fully understood, and most programs or studies that have shown some positive results have been small or geographically concentrated. Additional research and programs would be helpful in expanding knowledge of how motivation works and which strategies are effective for increasing it.

Actions That May Help Improve Student Motivation

Although research on the impact of programs to improve motivation is limited, our analysis suggests some ideas for actions that schools, families, communities, and others can take to foster students' academic motivation. The list below is just a starting point and is meant to stimulate discussion about a fuller range of options. Additional suggestions can be found in the six background papers on motivation that accompany this report.

IDEAS FOR SCHOOLS TO CONSIDER

- Think carefully about the pros and cons of instituting a reward program to spur students' motivation. If a school does opt for such a program, consider building in the following characteristics:
 - ✓ Reward students for mastering certain skills or increasing their understanding rather than for reaching a particular performance level or outperforming others.
 - ✓ Target behaviors or tasks that students feel are achievable, clearly articulated, and within their control.
 - ✓ Reward tasks that are challenging enough to maintain students' interests but not so challenging as to undermine students' feelings of competence.
 - ✓ Consider offering rewards linked to academics, such as books, rather than cash or non-academic rewards.
- Allow students to choose whether to pursue a reward.
- ✓ Provide rewards promptly enough so that students see a clear link between their actions and the reward.
- ✓ Have teachers or other individuals of social importance give out the rewards.
- ✓ Take care not to condition students to depend on a reward.
- If assessments are being used as motivational tools, consider these elements when designing and administering assessments:
 - ✓ Recognize that the most motivating assessments are those that address the key dimensions of competence, control, interest or value, and relatedness.
 - ✓ Make students aware of what they need to learn to do well on the assessment.
 - ✓ Keep in mind that assessments which reward creativity, effort, growth, and strategizing can have a stronger effect on motivation than assessments that emphasize competition or performance levels.
 - ✓ Consider administering more frequent assessments that start with easier goals and gradually increase in difficulty or providing students with opportunities to demonstrate their knowledge with performance tasks or low-stakes tests before taking an assessment that counts.
 - ✓ Recognize that high-stakes assessments, as well as some types of test preparation that go along with them, can have a negative effect on the motivation of some students by evoking anxiety, frustration, or fear of failure or by causing some students to lose interest in instruction.
- Give thought to adopting programs that encourage students to view postsecondary education as a goal. These programs can be motivating, especially if they incorporate the following aspects:
 - ✓ Provide academic, social, and other supports in addition to scholarships to ensure students who aspire to postsecondary education are prepared for the challenge.
 - ✓ Provide access and encouragement for students to enroll early in the type of courses they will need to be ready for college.
 - ✓ Provide students with information, advice, and guidance about college admissions requirements, entrance exams, applications, and financial aid.
 - ✓ Create a "college-going culture" in which teachers, administrators, and other students reinforce the message that postsecondary education is a viable and important goal. Help students understand how postsecondary education applies to their personal life goals.

- Institute programs to provide low-income and disadvantaged parents with information and resources to help them become better “first teachers” of their children.
- Consider adopting programs to identify and address the academic and other needs of potential dropouts and other students who show signs of low motivation.
- Provide professional development to teachers on encouraging student motivation:
 - ✓ Help teachers learn to identify students who are at risk of low motivation or have social, emotional, or developmental challenges that could affect motivation.
 - ✓ Share ways that teachers can foster motivation in their own teaching through such means as holding high expectations for all students, increasing students’ autonomy, emphasizing mastery over performance, or creating an environment where students are willing to take risks without fear of failure.
 - ✓ Inform teachers about ways to effectively engage families in learning.
- Consider aspects of school organization that could improve students’ achievement and motivation, such as creating smaller schools or schools-within-schools or implementing block scheduling or looping. Recognize that these approaches are most effective when combined with strong curriculum and instruction, teacher training, attention to school climate, positive faculty-student relationships, and other elements.
- Think about providing alternative learning approaches, such as inquiry-based learning and service learning, for students who are unmotivated in traditional classrooms. If these programs are offered, keep in mind that they are most effective when they are aligned with a strong curriculum, are relevant and interesting to students, foster connections between what’s being learned and how it can be applied, allow for reflection and assessment, and emphasize problem solving and collaboration.
- Provide extracurricular activities that appeal to a range of interests and encourage as many students as possible to participate.
- Investigate new applications of technology that can make learning and assessments more engaging to students.

IDEAS FOR PARENTS AND FAMILIES TO CONSIDER

- Hold high expectations for your children’s learning and believe in their competence. Emphasize effort over innate ability. Praise children when they’ve mastered new skills or knowledge instead of praising their innate intelligence.
- Encourage children’s curiosity, exploration, persistence, and problem-solving. Expose them to new experiences.
- Take an active interest in your children’s education. Provide a stimulating learning environment at home, which does not have to involve elaborate resources. Make reading materials available and discuss new ideas or experiences with your children.

- Recognize that using rewards and punishments for academic performance can discourage some children from developing intrinsic motivation.
- Talk to your children’s teachers or school about programs to help parents become partners in learning.
- Be aware of who your children’s friends are and what messages they are sending about academics.

IDEAS FOR COMMUNITY MEMBERS, POLICYMAKERS, AND OTHERS TO CONSIDER

- Adopt policies and programs to provide disadvantaged families with the resources they need to prevent gaps in achievement and non-cognitive skills from forming.
- Provide supports, such as scholarships, mentoring, and information about college requirements, to encourage children to set college attendance as a goal.
- Establish extracurricular clubs and other activities outside of school that can foster interest in academics and provide students, particularly those from disadvantaged backgrounds, with ways to demonstrate their competence.

Conclusion

Student motivation is a critical part of success in education and later life, but it has often been overlooked in the national push to reform schools. The efforts now underway to raise academic standards, improve the effectiveness of teachers, and identify and assist low-performing schools are unlikely to increase student achievement if large numbers of students are unmotivated. The time is right for a national conversation about specific things schools, parents, and communities can do to better motivate children and youth to learn, persevere, and succeed in school and later life.

References

NOTE: For a more complete list of the information sources on which this summary is based, see the reference sections at the end of the six CEP background papers on student motivation, available at www.cep-dc.org.

- Aronson, J., & Steele, C. M. (2005). Stereotypes and the fragility of academic competence, motivation, and self-concept. In A. J. Elliott & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 392-413). New York & London: Guilford Press.
- Bandura, A. (1996). Social cognitive theory of human development. In T. Husen & T. N. Postlethwaite (Eds.), *International Encyclopedia of Education* (2nd ed., pp. 5513-5518). Oxford: Pergamon Press.
- Bridgeland, J. M., DiIulio, J. J., & Morison, K. B. (2006). *The silent epidemic: Perspectives of high school dropouts*. Washington, DC: Civic Enterprises.
- Bridgeland, J. M., DiIulio, J. J., & Wulsin, S. C. (2008). *Engaged for success*. Washington, D.C: Civic Enterprises and Peter D. Hard Research Associates.
- Dweck, C. S. (2010). Mindsets and equitable education. *Principal Leadership*, 10(5), 26-29.
- Eaton, M., & Dembo, M. (1997). Differences in the motivational beliefs of Asian American and non-Asian students. *Journal of Educational Psychology*, 89(3), 433-440.
- Ferguson, R. F. (2007). Parenting practices, teenage lifestyles, and academic achievement among African American students. *Focus*, 25, 18-26.
- Fordham, S., & Ogbu, J. (1986). Black students' school success: coping with the burden of "acting white." *Urban Review*, 18(3), 176-206.
- Fryer, R. G. (2011). Financial incentives and student achievement: Evidence from randomized trials. *Quarterly Journal of Economics*, 126(4), 1755.
- Fryer, R. G., & Torelli, P. (2010). An empirical analysis of "acting white." *Journal of Public Economics*, 94(3-4), 380-396.
- Graham, S., & Hudley, C. (2005). Race and ethnicity in the study of motivation and competence. In A. J. Elliott & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 392-413). New York & London: Guilford Press.
- Hardré, P. L., & Sullivan, D. W. (2009). Motivating adolescents: High school teachers' perceptions and classroom practices. *Teacher Development*, 13(1), 1-16.
- Heckman, J. J. (2011). The American family in black & white: A post-racial strategy for improving skills to promote equality. *Daedalus, the Journal of the American Academy of Arts & Sciences*, 140, 70-89.
- Hoke, W. (2008). Governor Strickland's initiative targeting black boys shows some gains, coordinators say. *Catalyst Ohio*, 10(2), 18-20.
- Kronholz, J. (2011). Getting at-risk teens to graduation. *Education Next*, 11(4), 24-31.
- Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic reward: A test of the "overjustification" hypothesis. *Journal of Personality and Social Psychology*, (28) 129-137.
- McLanahan, S. (2004). Diverging destinies: How children are faring under the second demographic transition. *Demography*, 41(4), 607-627.
- Murray, A. (2011). Montessori elementary philosophy reflects current motivation theories. *Montessori Life*, 23(1), 22-33.
- National Research Council. (2004). *Engaging schools: Fostering high school students' motivation to learn*. Washington, DC: The National Academies Press.
- Nichols, J. D., & Utesch, W. E. (1998). An alternative learning program: Effects on student motivation and self-esteem. *The Journal of Educational Research*, 91(5), 272-278.
- Oyserman, D., & Destin, M. (2010). Identity-based motivation: Implications for intervention. *The Counseling Psychologist*, 38(7), 1001-1043.
- Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, 95(4), 667-686.
- Raymond, M. (2008). *Paying for A's: An early exploration of student reward and incentive programs in charter schools*. Stanford, CA: Center for Research on Education Outcomes, Stanford University.

- Rigby, C. S., Deci, E. L., Patrick, B. C., & Ryan, R. M. (1992). Beyond the intrinsic-extrinsic dichotomy: Self-determination in motivation and learning. *Motivation and Emotion, 16*(3), 165-185.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78.
- Seifert, T. L. (2004). Understanding student motivation. *Educational Research (46)*2, 137-149.
- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology, 69*(5), 797-811.
- Stephens, S. (2008, January 24). Ohio education program targets at-risk high school freshmen. *The Plain Dealer*. Retrieved from <http://www.cleveland.com/news/plaindealer/index.ssf:/base/news/120116735630070.xml&coll=2>
- Stipek, D., Givvin, K. B., Salmon, J. M., & MacGyvers, V. L. (1998). Can a teacher intervention improve classroom practices and student motivation in mathematics? *Journal of Experimental Education, 66*(4), 319-337.
- Sundius, J., & Fothergill, S. (2010). Baltimore's rapid response strategy to increase graduation rates [PowerPoint slides]. From America's Promise Alliance Grad Nation Spring Training materials. Retrieved from <http://www.americaspromise.org/Our-Work/Grad-Nation/-/media/Files/Our%20Work/Dropout%20Prevention/Spring%20Training%20Materials/Sue%20Fothergill%20-%20national%20summit.ashx>
- Tyson, K., Darity, W. A., & Castellino, D. (2005). It's not a black thing: Understanding the burden of acting white and other dilemmas of high achievement. *American Sociological Review, 70*(4), 582-605.
- Wentzel, K. R. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology, 89*(3), 411-419.
- Young, A., Johnson, G., Hawthorne, M., & Pugh, J. (2011). Cultural predictors of academic motivation and achievement: A self-deterministic approach. *College Student Journal, 45*(1), 151-63.

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