



1. What is motivation and why does it matter?

This is the first in a series of six papers from the Center on Education Policy exploring issues related to students' motivation to learn. The major findings from all six papers are summarized in the CEP report Student Motivation—An Overlooked Piece of School Reform.

Almost anyone can give an anecdotal example of a family member or friend who is smart, possibly even scores highly on tests, but never cared to engage in school and never got good grades. Why would such an intelligent child lack the drive to excel? Or what explanation is there for two siblings raised in the same household—one of whom is extremely academically driven and the other of whom doesn't seem to care about academics at all? These are complex questions with no easy answers. But fundamentally, they point to one important issue—students' motivation to learn.

Education reform advocates have dedicated huge amounts of time and energy to improving public schools and raising student achievement. But with attention currently focused on factors like improving teacher quality, overhauling curriculum and standards, and developing new assessments, one major factor is being overshadowed: the motivation of the students themselves. Even with the best administrators, faculty, curriculum, and materials in place, if students are not motivated to learn and excel, achievement gains will be difficult, if not impossible. Higher motivation to learn has been linked not only to better academic performance, but to greater conceptual understanding, satisfaction with school, self-esteem, and social adjustment, and to lower dropout rates (Gottfried, 2009; Gottfried, 1985; Ryan & Deci, 2009; Ryan & Deci, 2000). Not only is student motivation the final piece of the school improvement puzzle—without it, the rest of the puzzle falls apart.

Perhaps motivation is less discussed because it is such an amorphous and difficult subject. To even define motivation is challenging, let alone to measure it. To dig beneath the surface and really think about student motivation only brings up more questions. Are there “right” and “wrong” ways to motivate students to learn? Whose job is it to motivate students—and who is responsible when they are not motivated? Can a poorly planned student engagement program actually *harm* motivation?

What Is This Series About?

Researchers from various fields, from psychology and sociology to economics and politics, have tried to find explanations for these same questions. Journalists, teachers, parents, and students have also sought out answers. But “motivation” can be defined in different ways, and its challenges can be addressed from different angles by scholarly journals, newspaper reports, research studies, and opinion pieces. While these sources sometimes disagree, the essential aim—to find out what practices can be employed to better motivate students to learn—is the same throughout the literature.

To understand more about policies and practices that can improve student motivation, the Center on Education Policy (CEP) reviewed research on motivation conducted by scholars in various disciplines, read studies of motivational programs, gathered news articles and blogs about motivational strategies, and used handbooks and other resources compiled by experts in the field. From this broad and complex array of information, we grouped what we learned into six general themes and developed this series of six papers, each focused on a different aspect of motivation. These papers highlight findings from research and lessons from programs around the country that we felt could be useful to policymakers, educators, and others interested in improving student motivation. These papers are not intended to be a comprehensive summary of research or lessons learned, but rather an opening of a conversation and an exploration of ideas that might spur further discussion of this critical topic.

This first paper in the series examines two fundamental issues that are necessary to understand before delving deeper into the research literature: why student motivation matters and how the concept of “motivation” has been defined.

Why Does Motivation Matter?

Motivation affects every aspect of schooling.

Although not as frequently discussed as other aspects of reform, motivation is a crucial part of a student’s experience from preschool onward. 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 much they attempt to engage or disengage their fellow students from academics, how they perform on assessments (and therefore how the school performs), and so on. Hardly any aspect of the school environment is unaffected.

A lack of motivation has important consequences.

Former Education Secretary Terrel Bell made this point forcefully when he said, “There are three things to remember about education. The first is motivation. The second one is motivation. The third one is motivation.”

Data indicate that lack of motivation is a real problem affecting large percentages of students. Upwards of 40% of high school students, depending on the study, are disengaged from learning, are inattentive, exert little effort on school work, and report being bored in school, according to a 2004 National Research Council report. Unfortunately, this report noted, motivation and engagement in school decline steadily as students progress from elementary to middle and high school. “Adolescents are too old and too independent to follow teachers’ demands out of obedience, and many are too young, inexperienced, or uninformed to appreciate the value of succeeding in school” (NRC, 2004, pp. 18-19). Losing motivation to learn has serious consequences that can culminate in students dropping out of school. In a 2006 survey exploring why students dropped out of high school, 70% of dropouts said they were unmotivated (Bridgeland, Dilulio, & Morison, 2006).

What Is Motivation?

To understand factors that can diminish or strengthen motivation, one must first grasp what is meant by the complex concept of motivation itself. What motivates students to learn? Is it simply the desire to get good grades, or is it a competitive drive to outperform their peers? Or do they want to satisfy some family demand? Is it a fear of failure? Is it a hope to generally succeed in life, whether that means being admitted a top college or getting a certain job? Or is it the promise of concrete rewards that drives them to succeed?

Motivation can be intrinsic or extrinsic (or perhaps both).

Researchers who have struggled with questions of what motivates students 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 for the enjoyment of the thing itself, but because doing so leads to a certain result (Pintrich, 2003). Some refer to this divide as the difference between true motivation and “engagement,” or simply holding one’s attention. Others see not a divide but a spectrum; any action could be motivated by a combination of intrinsic and extrinsic factors (Rigby et al., 1992; Murray, 2011). As evidenced by some of the programs detailed in other papers in this series, it is often difficult, if not impossible, to categorize motivation as purely intrinsic or extrinsic. How can we determine if a student truly wanted to achieve something, if that person simply went through the motions to gain the promised reward, or if it was a mixture of both? Or maybe the student was drawn in by the extrinsic reward, but while going through the motions to earn it, began to see its intrinsic value. Although complex, this concept of intrinsic versus extrinsic motivation creates important questions for the designers of motivation programs.

Students’ beliefs affect motivation.

Other findings from the fields of psychology and development have implications for policy design. Researchers have demonstrated that how students think of their own capacity to

learn can influence how motivated they are (Barry, 2007; Murray, 2011). If a student believes, for whatever reason, that he or she has a limited capacity for learning or feels unlikely to succeed, that student will not be as academically motivated (Pintrich, 2003).

Additionally, how students conceptualize “knowledge” or “learning” can also influence how motivated they are. If a student defines knowledge as a fixed quantity a person either has or doesn’t have, that student is less likely to be motivated to learn than one who defines knowledge as a quantity that can change and grow (Dweck, 2010).

Likewise, students need to recognize a correlation between effort and success. Students who feel they have no control over the outcomes of their efforts are less likely to put forth any effort to begin with (Murray, 2011; Barry, 2007; Pintrich, 2003). Some scholars feel that only one of these perspectives is an accurate way to look at motivation, while others believe it is a combination of such influences that motivates students.

Four major dimensions contribute to motivation.

While researchers use different frameworks for thinking about motivation, they essentially agree on the major factors students need to have in order to be motivated: competence (the belief that they’re capable of doing something), autonomy/control (the ability to set appropriate goals and see a correlation between effort and outcome), interest/value (a vested interest in the task and a feeling that its value is worth the effort to complete it), and relatedness (the need to feel part of a group or social context and exhibit behavior appropriate to that group) (Murray, 2011; Pintrich, 2003; Ryan & Deci, 2000). These dimensions of motivation, which are drawn from the work of several major scholars, are important to understand because they form the basis for many of the policies and programs explored in other papers in this series.

The box below is a simplified summary of these dimensions, which we will refer back to in the five other papers.

Four Dimensions of Motivation	
Dimensions	Indicators
Competence (<i>Am I capable?</i>)	The student believes he or she has the ability to complete the task.
Control/autonomy (<i>Can I control it?</i>)	The student feels in <i>control</i> by seeing a direct link between his or her actions and an outcome. The student retains <i>autonomy</i> by having some choice about whether or how to undertake the task.
Interest/value (<i>Does it interest me? Is it worth the effort?</i>)	The student has some <i>interest</i> in the task or sees the <i>value</i> of completing it.
Relatedness (<i>What do others think?</i>)	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.

Themes to Keep in Mind

Motivation—*why* anyone does any of the things that they do—is difficult to accurately determine. Students’ motivation to learn is only slightly less complex. Each of the types and dimensions of motivation described above suggests a slightly different strategy for fostering motivation. If students are best motivated extrinsically, for example, then paying them cash for good grades would be a smart policy. However, if to motivate students we must change their concept of self, then paying for good grades might actually be detrimental.

Even within each individual student, motivation in one class or subject could be completely independent from factors motivating that same student in a different context. “Some students may be motivated and sustained through their self-efficacy beliefs, whereas others are motivated to try hard, persist, and achieve because of their goals, their personal interests, their value beliefs or contextual factors . . .” (Pintrich, 2003, p. 671).

For this reason, each of the five other papers in this series looks at programs that utilize a similar “motivator”: rewarding effort or accomplishment (paper 2), affecting student’s goals (paper 3), addressing family and social context (paper 4), addressing the school context (paper 5), and creatively appealing to students’ personal interests (paper 6). While some of the programs discussed in the papers use non-academic means to reach students, each paper specifically examines programs that are intended to ultimately increase students’ motivation to *learn*. And rather than subscribe to one motivational theory or lens, each paper describes several theories that offer support for (or against) the policies outlined in that paper.

Entire careers have been made examining issues of motivation, and our papers do not attempt to provide an exhaustive summary of research or definitive answers to the difficult questions. By examining some of the strategies and programs in operation around the country and by looking at the issue through different lenses, we do hope to draw out some lessons that can help policymakers, educators, and parents—and perhaps students themselves—find ways to enhance student motivation.

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