

Chapter 2

Motivation to Learn and Achievement

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Key Questions

1. What is achievement motivation and why does it differ in children?
2. What are achievement goals and how do they foster self-regulated learning?
3. Why are students' attributions for success and failure important to know?
4. Why is engagement a critical aspect of student achievement?
5. What are the three components of task value?
6. What can teachers do to increase children's motivation to learn, set mastery oriented goals, and enhance student engagement?

Introduction

Maintaining students' enthusiasm for school and motivation towards learning is a challenging task for many teachers. Jenkins (2012) found that students' self-reported enthusiasm for school is about 95 % in kindergarten and drops to 37 % by ninth grade. Enthusiasm recovers to about 40 % in grades 10, 11, and 12. This high school recovery is attributed to students seeing an end to schooling, availability of more elective courses that they may prefer and reflects only the views of those who remain in school after ninth grade. Jenkins suggests that a major reason for this increasing lack of enthusiasm can be tied to the external reward structure of schools—stickers,

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popcorn parties, etc. Jenkins argues that these external rewards may work for the short terms, but soon the focus shifts from an enthusiasm to learn to learning tied to outside rewards. When the rewards become mundane, motivation may suffer. Teachers are constantly trying to figure out the motivation underlying student behaviors and academic achievement. While one student may be motivated to learn if offered an extrinsic incentive, another student will only be motivated by intrinsic sources of motivation such as the need to achieve or fulfill their commitment to others. Although it is generally agreed upon by educators and researchers that “unmotivated” learners do not exist, there are incredible individual differences in the sources and levels of students’ motivation to learn.

Overview of Motivation and Achievement Motivation

Motivation as described by Schunk and Mullen (2013) is a process where goal directed activities begin and then eventually are sustained. When applied to educational settings, researchers focus on achievement motivation. According to Elliot & Church (1997), achievement motivation is enacted when an individual strives to be competent (Elliot & Church, 1997). A related construct is Brophy’s “motivation to learn,” which is describes as more than doing the bare minimum to meet the requirements, but deliberately engaging in academic tasks with the intent to acquire new knowledge or skills.

For decades, researchers have argued about how to define and measure achievement motivation. Early theorists suggested that achievement motivation is caused by instincts, traits, needs, or drives (Schunk, Pintrich, & Meece, 2008; Weiner, 2013). The trait or need approach specifies that achievement motivation is determined by innate dispositions or personal characteristics that are shared by individuals but vary in terms of strength. It was believed students who have “more” of the achievement trait or drive will be more motivated towards success. One of the more well-known drive theorists is Abraham Maslow (1954), who is credited with substantially advancing the understanding of needs with his hierarchy. According to Maslow, needs are arranged in a five category hierarchy: physiological, safety, social, esteem, and self-actualization. Once individuals’ physiological needs (food, water, etc.) are met, they can move on to begin the other four needs. In the classroom, safety needs are met by providing a healthy and safe environment with a caring teacher. Peer involvement is the primary way social needs are met, which calls for the use of cooperative learning team-based activities. Esteem needs require that teachers find ways to help build students’ confidence in academic tasks and recognize their achievements. Self-actualization typically refers to the self-fulfillment a learner feels after successfully completing a task. Maslow’s hierarchy of needs model specifies that if needs are not met at each level, achievement motivation and academic performance may be thwarted. On the surface, Maslow’s Hierarchy of Needs theory makes sense. We often hear educators claim children cannot learn if they are hungry. However, one of the criticisms of Maslow’s theory

is that people can actually proceed to satisfying a higher need even if they have not met the previous need(s). For example, we can often think of instances in which we became so engaged in a task, we were capable of learning and we forgot that we were hungry or thirsty.

While Maslow focused on the order of humans' needs, more recent theorists focus on the strength of the needs that drive motivated behavior. For example, in their Self-Determination Theory (SDT), Deci and Ryan (2000) claim that students seek experiences that fulfill their fundamental needs and identities. According to SDT, all individuals have fundamental psychological needs for competence, autonomy, and relatedness. *Competence* refers to the need to experience oneself as effective in one's interactions with the social and academic environment (Elliot & Dweck, 2005). Thus, a student's need for competence is fulfilled when they know how to effectively achieve desired school or learning outcomes (Skinner & Belmont, 1993). SDT conceptualizes *autonomy* as the extent to which an individual experiences oneself as the source of action. For instance, we would observe an autonomous learner as one who perceives the academic task as relevant to his or her interests, goals, or career potential. We would also observe a student fulfilling his or her need for autonomy when a student experiences choice in determining his or her own behavior (Assor, Kaplan, & Roth, 2002). The third component of self-determination theory is *relatedness*, which refers to the need to experience oneself as connected to other people (Connell & Wellborn, 1991). Thus, a student's level of achievement motivation for a task is influenced by the degree to which they perceive that the school context meets their psychological needs for competence, autonomy, and relatedness (Deci & Ryan, 2000).

As a final trait theory of achievement motivation, we turn to the concept of Need For Cognition (NFC). According to Cacioppo, Petty, and Kao (1984) students vary in their tendencies to engage in and find enjoyment from effortful thinking. NFC specifies that students have a relatively stable intrinsic predisposition that can account for individual differences in cognitive processing of information (Cacioppo, Petty, Feinstein, & Jarvis, 1996). Rather than placing emphasis on students' aptitude for learning and intellectual endeavors, NFC focuses on student's attitude toward learning and level of achievement motivation (Cacioppo et al., 1996). Researchers have found a correlation between students' level of NFC and their performance on a wide variety of cognitive and academic tasks (i.e., verbal intelligence tests, arithmetic problems contained in standardized tests, and reading comprehension) (Cacioppo & Petty, 1982; Dai & Wang, 2007). A significant correlation has also been found between NFC and high school Grade Point Averages, and the ability to acquire new knowledge in a learning setting (Cacioppo et al., 1996). Kardash and Scholes (1996) provided evidence that NFC is related to how individuals solve problems. They found evidence supporting the hypothesis that individuals high in NFC are better able to accurately deal with complex and conflicting evidence compared to individuals low in NFC.

In an effort to understand the behaviors of contemporary youth, researchers are investigating the impact of NFC on students' media and Internet usage. As we might expect, researchers found students high in NFC are more likely to use tech-

nologies that require effortful thinking and reasoning (Cacioppo et al., 1996). Moreover, individuals high in NFC report significantly lower television viewing rates than compared to those low in NFC (Henning & Vorderer, 2001; Shrum, Burroughs, & Rindfleisch, 2005). In regard to social media activity, NFC has been studied in relation to the cognitive processes associated with social media activity. Individuals with a high NFC show a preference for online interactivity and social media (Sicilia, Ruiz, & Munuera, 2005). Some of their online media use may be related to the fact that individuals high in NFC are drawn to the visual and verbal aspects of Web sites (Martin, Sherrard, & Wentzel, 2005). Although they tend to be highly engaged in some aspects of the Internet, individuals high in NFC do not appear to be obsessive users of the Internet or social media. Of interest, Shi, Chen, and Tian (2011) found people low in NFC were more likely to be problematic Internet users compared to people high in NFC. Their research revealed those high in NFC tend to more effectively manage their Internet time for employment and academic tasks.

Self-Regulated Learning

In contrast to previous motivation theorists who focused on traits and drives, contemporary motivation researchers emphasize the extent to which learner are self-regulated. Self-regulated learners (SRL) are known to use both motivation and learning strategies. As teachers experience every day, students differ in the extent to which they behaviorally, metacognitively, and motivationally participate in their own learning. A self-regulated learner is defined as a student who deliberately generates his or her own thoughts, feelings, and actions to achieve his or her learning goals. Although there have been many theoretical perspectives on SRL over the past 30 years, most typically integrate goal setting, self-observation, and self-evaluation (Zeidner, Boekarts, & Pintrich, 2000). In addition to self-regulation processes, SRL also involves the enactment of specific behavioral strategies (e.g., study skills, time-management skills, and organizational strategies). A third component to SRL are the self-motivational beliefs the learning brings to the task. More specifically, students bring beliefs about their likeliness of being successful in the learning situation, as well as their intrinsic interest for the task. Zimmerman's (2000) model specifies three cycles in the SRL process: (1) forethought (i.e., processes that precede any effort to act), (2) performance control (i.e., processes occurring during learning efforts), and (3) self-reflection (i.e., processes occurring after learning or performance).

Pintrich (2000, 2003) and his colleagues have demonstrated that effective and non-effective self-regulated learners differ in both will and skill. In particular, they found the extent to which learners find a task interesting, important, and valuable is related to their use of SRL strategies (Pintrich & De Groot, 1990; Pintrich & Schunk, 2002). Similarly, Wigfield (1994) reported that achievement values are related to students' choices about whether or not to become cognitively engaged in a task. Further evidence comes from Schiefele (1992), who found that students who were

interested in the reading materials processed them at a deeper level and used more elaborate learning strategies while reading than did less interested students. The research suggests that students who view a learning task as valuable are more likely to use effective and adaptive SRL strategies that lead to better learning outcomes (Pintrich, 1999).

There are three key issues for us to keep in mind regarding SRL. First, it is important to recognize the developmental nature of self-regulated learning. Children younger than 8 years of age may struggle with SRL because they have not yet able to differentiate their competence in various academic tasks. Moreover, researchers believe SRL is related to a child's global sense of self. According to Harter (1999), children begin to develop a sense of self-worth typically around age 8. Also, Nicholls and Miller (1984) found that children younger than age 8 also struggle with distinguishing mood from interest and they have trouble making accurate self-judgments of their abilities.

A second key issue is that allow the emphasis is on "self," self-regulated learners do not operate in an isolated or completely independent manner. In fact, self-regulated learners are resourceful and will frequently seek help from others in order to be successful (Butler, 1998).

A third and final issue is that SRL skills can be explicitly taught. Teachers can model SRL and directly teach the phases of SRL and allow students to practice SRL with real tasks. In a study of high school students, Labuhn, Zimmerman, and Hasselhorn (2010) found that learners who were taught SRL skills through monitoring and observing a teacher model were more likely to demonstrate higher levels of academic confidence and perform higher on measures of academic achievement compared to students who did not receive direct instruction on SRL. However, modeling and teaching SRL to students is necessary but not sufficient to guarantee success. Teachers must also provide students with progress feedback through the SRL phases. In one study, Labuhn et al. (2010) reported teacher feedback on the use of SRL strategies can actually improve mathematics achievement of fifth grade students. For more information about a school-wide approach to SRL, readers are referred to Cleary and Zimmerman's (2004) Self-Regulation Empowerment Program (SREP) that utilizes SRL coaches who use microanalytic assessment procedures to assess students' self-regulation beliefs and study strategies. SREP also train students to learn how to set and adjust their learning goals, select and monitor strategy effectiveness, and make strategic attributions for their academic successes and failures.

Locus of Control and Self-Efficacy

Related to motivation are the similar concepts of locus of control and self-efficacy. Both describe the source of reinforcement that stimulates behavior and the sense that one is capable to actually complete a task. *Locus of control* as a concept with a deep research base is usually credited originally to Rotter (1954, 1971). Accordingly, the theory suggested that behavior could be predicted by knowing one's values,

expectations and the situation. Rotter's work led to the notion of locus of control. In his case, it was whether one received reinforcement for behavior from internal sources or external sources. Over the years, many researchers expanded on Rotter's concepts and expanded the notion of locus of control. Brown and Marcoulides (1996) further developed the concept of external social locus (an individual seeks reinforcement from close, personal others, e.g., family, friends) to complement internal locus of control (the individual sees himself/herself responsible for their reinforcement and actions); and external other locus (reinforcement comes from luck, chance and/or some unseen spiritual being).

As a teacher, think of driving to work and getting a ticket for rolling through a stop sign. To whom do you attribute the ticket? Someone with a more internal locus of control might say that the error was their own, they did roll the stop sign and they were indeed at fault. Someone with a more external social perspective might attribute the ticket to the police officer who should have not been hiding between parked cars with the sole intent to give tickets. And after all, it was close to a full stop. An external other person might blame the ticket on simple fate, knowing that they roll the sign every day and this was just chance.

While all three perspectives are part of each individual, for the most part one perspective is dominant (yes, you did roll the sign, but what bad luck the officer just happened to be there). Why do these differing perspectives matter? They matter because they have implications for future effort. Why would one continue to try to succeed if they believe that any reinforcement they receive is simply luck? Contrast that with one who believes success is rewarded internally; they made it happen because of their hard work.

Self-efficacy is described as the perception that one has the capabilities to actually complete a task (Bandura, 1997; Pajares, 1996). This perception is often based on past experience and the accumulation of skills related to a task that allows a person a reasonable expectation of success. Self-efficacy should not be confused with hoping for success without the necessary prerequisites. Self-efficacy may differ in the same individual across different contexts. For example, an assistant principal may feel a high degree of self-efficacy in their respective administrative role, but not so much so on the golf course. That is, self-efficacy is context specific.

Let's look at the perspectives above using examples from educational settings. Understanding the locus of control of yourself or those you lead may assist in developing appropriate actions. One of the most important implications of locus of control is that of persistence. If you encounter students who believe that their actions (internal) lead to their success, you will want to ensure that perspective persists by reminding them that they are in charge of their own achievement. As well, bringing others to observe their actions may reinforce their internal perception and provide a little external gratification.

Self-efficacy is said to be promoted in individuals in at least three major ways (Bandura, 1997). First, direct mastery experiences raises self-efficacy. Thus, a student needs to experience a wide array of activities in which they can be successful. As a teacher, take the basic learning from your teaching course work and supplement it with reading and opportunities to attend workshops. As well, form a

mentoring relationship with a successful leader and volunteer for assignments in areas in which you feel less confident. In an effort to promote mastery experiences that will increase a student's sense of self-efficacy, teachers must find ways to break down the task so that all students can experience some aspect of success.

Second, vicarious experience is also related. Take opportunities to observe others and be aware of activities that lead to both successes and failures. A third source of self-efficacy development is through verbal means. Talk to other teachers about their successes and discuss issues you may have. For a student, working in teams and sharing successful experiences may be helpful.

Student Engagement and Motivation to Learn

It is currently argued (Lawson & Lawson, 2013) that student engagement is of critical importance in today's competitive environment. Further they add that engagement is a dynamic and synergistic process and that early school success enhances academic engagement through increased self-efficacy. In their model, teachers set up the conditions for engagement by linking student learning to their specific context. As well, they suggest that student's disposition for engagement is linked to their will and skill. The conditions for engagement and dispositions to engagement lead to student acts of engagement (sticking to a task, developing mastery, etc.). Engagement can be conceived as the quality of one's interaction with a task, which can vary from shallow and superficial processing to motivate and strategic processing (Guthrie et al., 2004).

Task Value

Student engagement is more likely to occur when students value the learning task. Eccles and Wigfield (2002) describe four types of task values: utility value, attainment value, intrinsic value, and cost. *Utility value* refers to the belief that a task is applicable to one's future goals. For example, a student may want to take a biology course because he or she believes it will be useful in his or her future career as a doctor. *Attainment value* refers to the degree of importance the learner places on a task for confirming or disconfirming core aspects of one's self-schema or identity. For example, a student may want to get a high grade in a history class because he or she believes good grades are a reflection of his or her academic abilities. *Intrinsic value* can be defined as the level of the student's interest or enjoyment for a task. As teachers, we can envision the student who knows the task has utility value but does not find the task to be particularly interesting. Alternatively, a student may find great enjoyment for a task and yet not be able to see how the task applies to his or her future goals (i.e., utility value). Finally, the task *value of cost* is the expense or negative consequences for engaging in a task. For example, it is not uncommon to hear

college students admit they attend certain classes only because they have paid their tuition and do not want to waste money.

In a recent study, Johnson and Sinatra (2013) explored the relationship between task values, engagement, and conceptual change. One hundred and sixty-six college students were randomly assigned to one of two task value instructional conditions (utility, attainment) and a control condition. The researchers designed the experiment to study the extent to which induced task values would result in different degrees of engagement and conceptual change when participants read a refutation text about the common cold. Consistent with their hypotheses, the researchers found statistically significant differences among the participants in the task value and control conditions on perceived engagement, as well as conceptual change. Participants in the utility condition rated their engagement as significantly higher than those in the control condition. More importantly, participants in the utility condition showed the greatest degree of conceptual change. The usefulness of task value inductions for facilitating engagement and conceptual change is discussed.

Because current theories on perceived task value come from expectancy-value theory and the work of Eccles and Wigfield (1995, 2002), teachers are encouraged to simply ask students about the extent to which they find the task interesting, useful, and worth their time and effort. In understanding task value, it is also important to ask students the extent to which they think they will be successful. Expectations for success are key beliefs in most contemporary models of motivation, and are correlated with students' learning goals, self-efficacy beliefs, interest in a task, and the reasons students give for why they engage in the task.

Beliefs About Intelligence

Related to the issue of motivation are beliefs about one's intelligence. For over 40 years, Carol Dweck and her colleagues (Dweck, 2012; Dweck & Leggett, 1988; Elliot & Dweck, 2005) have studied learner's beliefs about the origins of intelligence. She has found evidence that some learners adopt a "growth mindset" of intelligence, meaning they view intelligence as a malleable attribute that can change over time and be developed through effort. In contrast, some learners hold to a "fixed mindset" in which they believe intelligence is an inherited and uncontrollable trait. For example, we have all heard the student who claims "I am not good in math," which is an example of a fixed notion of ability or intelligence. Of equal concern is the student who announces "I received a high grade on the test because I am smart." Thus, if a student believes success is because he or she is smart, they are also at risk to believe "failure means I am dumb." Without intending to do so, we often send subtle messages to students that can further a belief of fixed notion of intelligence. For example, the very labeling of "gifted programs" may instill a belief in some students that academically successful students are born with certain abilities or gifts. Students who hold a growth mindset are more likely to persist when the task becomes difficult and they are more likely to ask for help compared

to students who hold a fixed mindset (Dweck, 2012; Dweck & Leggett, 1988; Elliot and Dweck (2005)).

One example is the mounting body of research revealing Dweck's research is particularly relevant to understanding women's persistence and success in STEM (science, technology engineering and math) disciplines. Good, Aronson, and Inzlicht (2003, 2012); Good, Rattan, and Dweck (2012) have found that for both middle school and college students, a growth mindset serves as resilient buffer and protects girls and women from the influence of the widely held stereotype that girls are not as good as boys at math and science. Another concern is that girls and women who hold a fixed mindset of intelligence may be more likely to take easy or low level courses so they can earn an "A," which puts them further behind their male peers.

Dweck continues to recommend that parents and teachers should emphasize and model how learning involves challenges, requires effort, and mistakes should be encouraged and highly valued. Any effort to help students adopt a growth mindset or malleable view of intelligence needs to include an assessment of students' goal orientation.

Goal Orientation Theory

Achievement goal theorists focus on the reasons students give for engaging personally in specific academic tasks. Researchers typically examine two types of goals (mastery and performance goals), each of which is presumed to have both approach and avoid components. Most recently, there is empirical support for a 2x2 achievement goal framework in which four goals are proposed: mastery/learning approach, mastery avoidance, performance approach, and performance avoidance (Anderman & Patrick, 2012; Huang, 2012). An extensive amount research shows the many positive effects of a mastery/learning goal orientation for learning, motivation, and achievement. Students with a mastery goal orientation are less concerned about how their performance compares to others. Instead, they are likely to set self-referential goals and strive for improvement. They are motivated to learn as much as they can about a subject and are not likely to raise their hand in class and ask "will this be on the test?" In general, students with learning goals are likely to seek out challenges, persist when tasks become difficult, view failure as a sign that they need to exert more effort, evaluate their own performance in terms of the progress they made (Covington, 2000; Ormrod, 2011). As we would expect, students with a mastery goal orientation also tend to have a growth mindset about intelligence and tend to have a high sense of self-efficacy. Students with performance goals strive for competence in order to demonstrate their abilities to others. A performance goal orientation frequently involves normatively based standards and students may appear competitive as they at times fixate on outperforming their peers. The consequences for having only a performance goal orientation can be severe for student achievement and their well being. Students with a performance goal orientation are more

likely to choose easy tasks that will allow them to look competent in the eyes of others and they may avoid challenging tasks. They are often motivated by extrinsic rewards and frequently use rote learning strategies such as repetition or copying. Because they are likely to show high anxiety prior to and during exams, students who only adopt a performance goal orientation are at risk to engage in academic dishonesty behaviors.

In the past, these two types of achievement goals were separated, however, recent research indicates students can adopt both learning and performance goals (Conroy, Elliot, & Hofer, 2003; Wolters, 2004). Performance goals are further separated into two types: approach-performance and avoidance-performance (Elliot & Church, 1997). Approach-performance goals are related to students' desire to outperform their peers, whereas students who adopt avoidance-performance goals are motivated to avoid looking incompetent or "stupid." Avoidance-performance goals appear to have the most detrimental effects on teaching and learning. For example, students who adopt avoidance-performance goals are typically not open to receiving negative feedback regarding their performance (Elliot & Church, 1997; Skaalvik, 1997). Learning is not always fun for students who hold strong performance goals. They may not appear interested the task and they often struggle to find the utility value of the task. We can often see them drilling themselves with stacks of flashcards and they may view their teacher as less of a resource and more of a "gotcha" figure who is trying to test them only about what they do not know.

Conclusions

In discussing effective teaching and learning methods, Feldon (2010) emphasizes that what a student bring to the classroom in terms of goals, interests motivation and prior knowledge is key. This is directly related to self-regulated learning and self-determination theory. He argues that the deliberate management of engagement opportunities for students that allows focus on achievement of goals is the critical component. While technological devices and software often enhance this engagement, it is clear that engagement is crucial.

In terms of teacher expectations of students, research has consistently shown a small, but statistically significant effect on student achievement. The Education Commission of the States (2012) provides an annotated bibliography of research and the effect of teacher expectations on student achievement. In general, lower teacher expectations of students leads to setting lower standards, less feedback to students, positive or negative, more disciplinary referrals, and less time for student responses to questions. And while lowered student expectations are not seen to be from malice or pervasive, teachers need to be aware of potential biases especially to students from impoverished and/or traditionally underrepresented groups.

In a report by the *Principal Leadership* journal (Hartzman & Mero, 2011) operationalizing the concept of changing expectations was discussed. Facing low student performance, the teachers and school worked collaboratively to enhance the

instructional program. What was most interesting were the goals established: each student succeeds every day and bell to bell engaging instruction. Interventions including tutoring systems were established so that students who were straggling received they help they needed rather than seen through the eyes of negative expectations. The school in question is now seen as a model of a turnaround success.

For engagement, research suggests a broad set of activities that deal not only with a student's time in school but also with bringing in out-of-school experiences. And engagement cannot be seen as a program to be implemented, but more as a set of behaviors that address student prior knowledge, in home experiences and community influence (Lawson & Lawson, 2013).

Archambault, Janosz, Fallu, and Pagani (2009) and Wang and Eccles (2013) conducted longitudinal studies in which the findings provided support for the multidimensional perspective of student engagement proposed by Fredricks, Blumenfeld, and Paris (2004). According to their perspective, student engagement encompasses behavioral, affective, and cognitive dimensions. Behavioral engagement refers to student conduct that is beneficial to psychosocial adjustment and achievement at school. The three main axes that divide the dimension are: positive behaviors, involvement in school-related tasks, and participation in extracurricular activities (Fredricks et al., 2004). Behaviors defining all three axes range on a continuum and may be positive and negative. For the positive behavior axis, following school rules versus oppositional behavior demonstrates the engagement/disengagement continuum (Costenbader & Markson, 1998). The extent to which a student completes his or her homework is an example of the axis "involvement in school-related tasks" (Prosser & Vandell, 1999). The third axis of school engagement can be identified by simply looking at the frequency of a students' participation in extracurricular activities (Mahoney, Cairns, & Farmer, 2003). The affective dimension of engagement refers to feelings, interests, beliefs, perceptions, and attitudes toward school. Researchers have operationalized this variable using perceptions of belongingness (Goodenow, 1993), the perceived benefits and value of education (Eccles, Wigfield, Harold, & Blumenfeld, 1993), and specific importance of school in helping students reach specific goals (Bouffard & Couture, 2003).

Cognitive engagement is comprised of the student's psychological investment in learning and the use of self-regulation strategies by the student. Cognitive investment in learning covers perceptions of competency, willingness to engage in learning activities and engage in effortful learning, and establishing task-oriented goals (i.e., performance, mastery, and performance-avoidance goals (Debacker & Nelson, 2000)). Self-regulation strategies focus on specific learning tools such as memorization, task planning, self-questioning, and self-monitoring (Ablard & Lipschultz, 1998).

Teacher strategies in terms of student motivation to learn are complex. Unfortunately, there is no list of activities that a guaranteed to work. As with all educational research, motivation of students for positive outcomes is context specific. One must take the broad theoretical ideas and apply them in particular situations.

With such in mind, what is known is that students in all grades need a safe, secure, and friendly environment. Any methods that bring the student's personal background and prior knowledge to enhance relevance of the learning are key. Undeniably, students need the requisite foundational knowledge, but learning always involves the components of "will and skill." However, the self-regulated learner does not learn in a vacuum. Cooperative learning through teams (including social media) can address the affective component of motivation. Finally, feedback that addresses self-efficacy and modeling by the teacher assist in developing student behavior related to goal attainment.

Application Activities

Idea 1

For engagement, a broad set of activities that deal with both a student's time in school, and out-of-school experiences is critical. Design a writing assignment around a student's favorite hobby or out-of-school activity.

Idea 2

Teacher expectations of students have shown a consistently small, but statistically significant effect on student achievement. Discuss in small groups behaviors that might be seen for both high and low teacher expectations of students.

Idea 3

Feedback that addresses student self-efficacy and modeling by the teacher assist in developing student behavior related to goal attainment. Identify five ways you can provide feedback to students that model self-efficacy.

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