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Twenty Strategies to Increase Student Motivation

At a Glance

Keeping students interested in school and motivating them to succeed are challenges that even the most experienced teachers face every year. A host of student variables can lead to low levels of motivation, but research indicates that educational settings also influence motivation levels. Some studies have found that motivation is a stronger predictor of student success than grades or achievement and aptitude tests. Therefore, it is imperative that educators use effective motivational strategies. This Information Capsule summarizes 20 research-based strategies that have been found to increase student motivation. Brief explanations of motivational theory and the difference between intrinsic and extrinsic motivation are also provided.

Many students are not motivated to learn in the classroom. Keeping students interested in school and motivating them to succeed are challenges that even the most experienced teachers face every year (Butod, 2008; Brewster & Fager, 2000).

While dropping out of school is the most visible indication of students' disengagement from school, many students who stay in school attend irregularly, exert only minimal effort, or display indifference, inattentiveness, boredom, and in some cases, disruption and defiance (Butod, 2008; Learning Point Associates, 2007; National Academy of Sciences, 2005; Tomlinson, 1992). A 2006 poll of over 600 California ninth and tenth grade at-risk students found that 73 percent of the respondents stated they could do "somewhat" or "much better" in school if they felt motivated to work harder. Only 27 percent of students reported working as hard as possible (Jacobson, 2006).

Many factors contribute to students' lack of engagement. For example, school work may be too difficult or too boring, teachers may be too demanding or provide few challenges, or students may not see the connection between school learning and their outside lives. In addition, a host of student variables can lead to low levels of motivation, such as unsupportive parents; physical, mental, or nutritional problems; insufficient amount of sleep; social isolation; low self-confidence; or lack of academic readiness (Maine Center for Meaningful Engaged Learning, 2008; Long et al., 2007; Budge, 2000; Hidi & Harackiewicz, 2000; Hootstein, 1994).

Considerable research has found that academic motivation decreases steadily as students get older (Jalongo, 2007; National Academy of Sciences, 2005; Northwest Educational Technology Consortium, 2005; Brewster & Fager, 2000; Budge, 2000; Hidi & Harackiewicz, 2000; Anderman & Midgley, 1999). However, studies indicate that educational settings, even as late as high school, can influence students' levels of motivation (Long et al., 2007; National Academy of Sciences, 2005).

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Several studies reported that motivation was a stronger predictor of student learning than grades or standardized achievement and aptitude tests (Shih & Gamon, 2001; Miller & Meece, 1999; Newark Public Schools, n.d.). Therefore, it is crucial that educators use effective strategies for motivating students and increasing their appreciation for the value of learning.

This report summarizes 20 research-based strategies that have been found to increase student motivation. First, brief reviews of motivational theory and the difference between intrinsic and extrinsic motivation are presented.

What Motivates Students?

Motivation refers to the reasons individuals take action. Motivation to learn is a willingness or desire to gain information, develop skills, and attain mastery. Motivation is tied to the belief that learning is interesting and relevant and therefore of value. The reason for learning something must be perceived as worth the effort and emotional investment required to accomplish the learning (Jalongo, 2007; Covington, 2000; Hootstein, 1994).

Deci (cited in Education Week, 2006) stated that the basic principles of motivation are the same for all groups of students, regardless of age, gender, and ethnicity. In order to be highly motivated, students need to feel a sense of competence, autonomy, and self-initiation and they must be able to relate to others within the learning setting. A study conducted by Strong, Silver, and Robinson (1995) asked students two questions: "What kind of work do you find totally engaging?" and "What kind of work do you hate to do?" Respondents stated that engaging work was work that stimulated their curiosity, permitted them to express their creativity, and fostered positive relationships with others. Students reported that they hated work that was repetitive, required little or no thought, and was forced on them by others. However, educators must keep in mind that not all students are motivated by the same factors. Some students are motivated by the approval of others, for example, while others are motivated by overcoming challenges or demonstrating their originality (Lumsden, 1994; Davis, 1993).

Intrinsic versus Extrinsic Motivation

Intrinsically motivated students engage in an activity "for its own sake, for the enjoyment it provides, the learning it permits, or the feelings of accomplishment it evokes." Extrinsically motivated students, on the other hand, perform "in order to obtain some reward or avoid some punishment external to the activity itself," such as grades or teacher approval (Lepper, 1988).

Research suggests that intrinsically motivated students earn higher grades and achievement test scores than extrinsically motivated students. Intrinsically motivated students also tend to employ learning strategies that demand more effort, prefer more challenging tasks, feel more confident about their ability to learn new materials, and retain information and concepts longer. In contrast, extrinsically motivated students prefer tasks with a low degree of difficulty and tend to put forth a minimal amount of effort (Brewster & Fager, 2000; Dev, 1997; Lumsden, 1994; Lepper, 1988).

For years, educators have debated the impact of rewarding students for their performance. Researchers agree that extrinsic rewards should be used with caution because students tend to revert to their original behavior when the rewards stop and exert only the minimum effort required to receive the reward. Studies have also found that extrinsic rewards can actually have a negative effect on student motivation (Weller, 2005; Baldes et al., 2000; Kohn, 1999). Kohn (1999) stated that "teachers are actually aiding the decline of student motivation by thinking it's necessary to reward students to do something. In reality, research states that the more you reward someone for doing something, the less interested that person will be in doing what they were rewarded to do."

Deci, Koestner, and Ryan's (2001) meta-analysis of studies conducted on the effect of extrinsic rewards found that tangible rewards (such as stickers or pizza parties) and symbolic rewards (such as good

student awards) actually decreased intrinsic motivation. The undermining effect, however, was found only when rewards were expected, but not when they were unexpected. The researchers also found that verbal rewards (positive feedback) tended to enhance students' intrinsic motivation. Chance (1993) found that the use of rewards only resulted in reduced intrinsic motivation when they were given without regard to performance (i.e., simply for completing an assignment or activity) or when the performance standard was too high for students to realistically attain.

Although it is common to think of motivation as either intrinsic or extrinsic, many researchers believe motivation actually exists on a continuum, ranging from motives that are purely external to those that are deeply internal (Jalongo, 2007; Brewster & Fager, 2000; Center for Excellence in Teaching, 2000). Sternberg and Lubart (as cited in Strong, Silver, and Robinson, 1995) pointed out that most students are probably motivated to learn by both internal and external factors. They suggested that educators build on both types of motivation when trying to engage students more fully in their classes.

In conclusion, research indicates that verbal rewards, such as positive feedback, enhance students' motivation, while indiscriminate use of tangible rewards can actually lead to decreases in intrinsic motivation. When rewards are used, they must be used sparingly and clearly linked to realistic performance standards.

Motivational Strategies

Student motivation is influenced by both internal and external factors. Internal factors include students' individual dispositions, interests, responsibility for learning, values, and perceived ability. External factors include the types of schooling practices that promote or inhibit motivation. Research has shown that teachers can influence student motivation and that certain practices make assigned work more engaging for students at all levels (Malouff et al., 2008; Jalongo, 2007; Northwest Educational Technology Consortium, 2005; Weller, 2005; McLean, 2003; Brewster & Fager, 2000; Hootstein, 1994; Lumsden, 1994). McCombs (1995) stated: "Almost everything [teachers] do in the classroom has a motivational influence on students - - either positive or negative. This includes the way information is presented, the kinds of activities teachers use, the ways teachers interact with students, the amount of choice and control given to students, and opportunities for students to work alone or in groups. Students react to who teachers are, what they do, and how comfortable they feel in the classroom."

Although it is difficult to implement a one-size-fits-all programmatic approach for increasing student motivation, research suggests that some general strategies apply to a wide range of students (Anderman & Midgley, 1999; McCall, 1999; Renchler, 1992). A summary of research-based strategies for motivating students to learn is provided below.

1. **Connect learning to students' lives.** Research has shown that students are more motivated to learn when they understand their education is personally relevant to their interests and goals. Teachers should draw clear connections between what students are learning and real-life situations and explain why topics or activities are worthwhile (Kelly, 2009; Maine Center for Meaningful Engaged Learning, 2008; Malouff et al., 2008; Waxler, 2007; Atherley, 2002; Brewster & Fager, 2000; Center for Excellence in Teaching, 2000; Hidi & Harackiewicz, 2000; McCombs, 1991). Solmon (2006) noted that sometimes teachers mistakenly assume students understand the reason why they are engaging in a learning activity, when they in fact don't see any purpose for the task. Sansone & Smith (2000) found that when students were provided with reasons for learning, they were more adept at generating strategies to make relatively boring tasks more interesting.
2. **Connect effort with successful outcomes.** Students are more likely to engage fully when they recognize the link between effort and outcome. When students learn to associate their hard work with accomplishments and success, they will be more motivated to participate in learning activities (Sasson, 2007; Waxler, 2002; Hughes, 1995).

3. **Use engaging teaching methods.** Research has found that children and adults who are interested in particular activities or topics pay closer attention, persist for longer periods of time, learn more, and have more positive feelings about the learning experience (Jalongo, 2007; Learning Point Associates, 2007; Hidi & Harackiewicz, 2000). Strategies teachers can use to maintain student interest include:
- Use a variety of teaching methods to accommodate students with different learning styles (for example, small group learning, mini-lectures, class discussions, technology, case studies, debates, role-playing, demonstrations, and guest speakers) (Malouff et al., 2008; Portal & Sampson, 2001; Baldes et al., 2000; Center for Excellence in Teaching, 2000; Palardy, 1999; Hughes, 1995).
 - Use multiple modes of learning to address students' diverse learning needs, such as visual/spatial, musical/rhythmic, and kinesthetic learning (Jalongo, 2007; Weller, 2005; Rogers & Renard, 1999; Hughes, 1995).
 - Provide incongruous, conflicting, and paradoxical information to increase students' curiosity (Butod, 2008; Jalongo, 2007).
 - Ask critical questions that don't have a right or wrong answer so students are allowed to express their opinions (Waxler, 2007). Davis (1993) stated that teachers should never tell students something when they can ask them.
 - Make abstract concepts more concrete and familiar by using examples, metaphors, anecdotes, humor, stories, and simulations (Butod, 2008; McCall, 1999; Hootstein, 1994).
 - Allow students to engage in active, hands-on learning (Maine Center for Meaningful Engaged Learning, 2008; Malouff et al., 2008; Portal & Sampson, 2001; Davis, 1993).
 - Encourage students to participate in open dialogue, inquiry, and debate to make meaningful contributions to their own and their classmates' learning (Vavilis & Vavilis, 2004).
 - Provide students with opportunities to create their own problem-solving strategies (Vanderbilt University, 2008; Portal & Sampson, 2001).
4. **Clearly articulate criteria for success.** Classroom expectations for performance and behavior should be clear and consistent. Teachers should explain exactly what is expected on assignments or activities. Studies have found that students who are uncertain about what to do rarely perform well (Brewster & Fager, 2000; Strong et al., 1995; Davis, 1993; Harris, 1991).
5. **Set realistic goals.** Teachers should help students set achievable goals for themselves. Setting a goal demonstrates an intention to achieve and activates learning. Research has found that students who set their own goals demonstrate greater effort and persistence than those whose expectations are set by others. Goals should be realistic, with standards high enough to motivate students to do their best work, but not so high that students will be frustrated trying to meet them. Goals should also be set for each student individually. Studies indicate that individual goals are more effective than one goal for all students (Bartholomew, 2007; Northwest Educational Technology Consortium, 2005; Weller, 2005; Palardy, 1999; Madden, 1997; Davis, 1993).
6. **Convey high expectations.** Research has shown that teachers' expectations have a powerful effect on students' performance. Students expect to learn if their teachers expect them to learn because they tend to internalize teachers' beliefs about their abilities (Eggleton, 2007; National Academy of Sciences, 2005; Nieto, 2005; Portal & Sampson, 2001; Budge, 2000; Lumsden, 1994; Davis, 1993).

7. **Emphasize learning for its own sake.** School-level and classroom policies and practices should emphasize task mastery and effort. When teachers encourage students to improve their skills and achieve personal goals, all students can be successful, but if the emphasis is placed on outperforming others, only a few children will successfully meet that standard (Solmon, 2006; Brewster & Fager, 2000; Lumsden, 1994; Davis, 1993).

The awarding of classroom grades has generated debate among researchers. Graham (cited in Education Week, 2006) stated: "The problem is adults have preached GPA . . . so diligently we forgot to give equal importance to acquiring knowledge for purposeful applications or simply the personal satisfaction of knowing." Goslin (2003) noted that "grades are often not as motivating as we would like them to be." He contended that they lose their power for most students because "only so many A's and B's are awarded in each class. The result, therefore, is that many students are not motivated to work hard because they know that they have little chance of beating out the best students for a good grade." Researchers at Vanderbilt University (2008) suggested that teachers avoid grading on a curve so all students have an opportunity to earn the highest grades.

Maehr and Midgley (1991) stated that the classroom is part of larger school environment and that whole-school efforts can serve to enhance or diminish student motivation. For example, a teacher's efforts to evaluate students on the basis of their progress can be invalidated by a school-wide emphasis on the results of standardized achievement tests. Researchers have therefore suggested that schools move away from recognition of high test scores and grades to recognition of improvement and an emphasis on learning for its own sake (Ingram, 2000; Anderman & Midgley, 1999; Tomlinson, 1992).

Current testing pressures tend to downplay reasons for learning and focus instead on the material to be covered. Jalongo (2007) stated that "from a motivational perspective, this is a serious error." In addition, Jalongo contends that continually "raising the bar" on standardized tests by setting higher standards eventually reduces students' expectancy of success and lowers motivation. Ediger (2001) pointed out that state departments of education use extrinsic motivational devices that serve to discourage students when they publish report cards, pay teachers based on students' test scores, withhold money from school districts with low student achievement, and threaten districts with state takeover.

8. **Assess students' skills, interests, and learning needs.** Teachers should learn about their students' viewpoints, interests, hobbies, and extracurricular activities and assess their level of understanding, skills, and self-initiative to ensure enthusiasm toward learning (Vanderbilt University, 2008; Waxler, 2007; National Academy of Sciences, 2005; Baldes et al., 2000; McCall, 1999). Students' motivation levels should be continuously monitored (by observing attendance, facial expressions, and participation level, or by asking students about their interest level) and teaching methods should be adjusted as needed to maintain high levels of engagement (Malouff et al., 2008).

Brewster and Fager (2000) reported that teachers who are most successful in engaging students create a learning environment that addresses students' basic needs. They concluded that "students need work that develops their sense of competency, allows them to develop connections with others, gives them some degree of autonomy, and provides opportunities for originality and expression."

9. **Assign moderately challenging tasks.** Teachers should assign challenging but achievable tasks for all students. Assignments should be difficult enough to require some effort and keep students interested, but easy enough to be completed with no more than a modest amount of assistance. If assignments are too easy, students will become bored and unmotivated; if they are too difficult, students will become frustrated and discouraged (Malouff et al., 2008; Jalongo, 2007; Waxler,

2007; Atherley, 2002; Portal & Sampson, 2001; Baldes et al., 2000; Brewster & Fager, 2000; Hootstein, 1994; Lumsden, 1994).

10. **Provide students with multiple opportunities for success.** If students don't believe they can successfully complete an activity, they are unlikely to exert much effort. For this reason, it is important for teachers to structure the learning environment so all students are able to experience some level of success (Eggleton, 2007; Solmon, 2006; Palardy, 1999; Rogers & Renard, 1999; McCombs, 1991). This can be done in the following ways:

- make sure activities are developmentally appropriate (Solmon, 2006);
- assign tasks that are neither too easy nor too difficult (Solmon, 2006; Davis, 1993);
- break large, multi-step tasks into smaller sub-tasks to provide students with multiple chances to experience success (Martin, 2003; Lumsden, 1994);
- once students feel they can succeed, gradually increase the difficulty level of assignments and tests (Center for Excellence in Teaching, 2000; Davis, 1993);
- give smaller, more frequent tests and quizzes, instead of a few large ones, so students have more chances to succeed (Center for Excellence in Teaching, 2000); and
- emphasize broad views of success, such as skill development, personal progress, and mastery of knowledge (Martin, 2003).

11. **Give students control over their own learning.** Research suggests that students' motivation increases when they are given as much control over their own learning as possible, within the constraints of the educational setting. Allowing students to take part in the decision-making process and giving them an active role in their own learning has been found to foster intrinsic motivation (Maine Center for Meaningful Engaged Learning, 2008; Vanderbilt University, 2008; Bartholomew, 2007; Jalongo, 2007; Solmon, 2006; Bradford, 2005; Northwest Educational Technology Consortium, 2005; Atherley, 2002; Hidi & Harackiewicz, 2000). Anderman and Midgley (1999) stated that providing students with choice does not require a major upheaval in the classroom or that teachers relinquish control over students' behavior. They suggest that even small opportunities for choice, such as whether to work independently or with a partner or whether to present a book review as a paper, poster, or classroom presentation, can increase students' motivation. Other examples of choice that can be offered in the classroom include selecting books to read, choosing one's seat location, picking study partners, deciding between two locations for a field trip, or selecting which topics to explore in greater depth (Kelly, 2009; Malouff et al., 2008; Learning Point Associates, 2007; Brewster & Fager, 2000; Davis, 1993).

Studies show that students who feel a sense of control over their learning are more likely to work hard and persist even when they face academic difficulties (Kelly, 2009; Learning Point Associates, 2007; National Academy of Sciences, 2005). Martin (2003) noted that too often students attribute their success or failure to factors beyond their control (such as good or bad luck, or easy or hard grading), but when students are given choices in their classroom experiences, they are more likely to recognize that they have control over their own learning and consequently feel more empowered.

Jalongo (2007) cautioned that students who are accustomed to highly structured classrooms and assignments may become overwhelmed by a large range of options and subsequently exhibit lower levels of task engagement. She suggested, therefore, that teachers make the course of action, rather than the topic, the area in which students are provided with the most choice.

12. **Provide constructive and immediate feedback.** Feedback can be a strong motivational tool. Students should be given constructive feedback on their learning processes and performance that delineates the steps they can take to improve. Comments should be focused on effort rather than ability (Maine Center for Meaningful Engaged Learning, 2008; Malouff et al., 2008; Jalongo, 2007; Kwong, 2001).

Dweck (cited in Education Week, 2006) advised that teachers must learn to tell the truth. She recommended that teachers not hide students' skill deficits from them in order to protect their self-esteem. Students need to know how they can improve. However, researchers caution that overly negative feedback can have an unfavorable influence on students' performance. Therefore, when teachers identify students' weaknesses, they should make it clear that the comments relate to a particular task, not to the student as a person (Malouff et al., 2008; Vanderbilt University, 2008; Davis, 1993).

Experts also suggest that feedback is most effective when it is provided as soon as possible after task completion. The longer the delay between work and feedback, the less effective the feedback becomes. Feedback should also be provided as frequently as possible (for example, after each problem or succeeding stage of complexity) for maximum effectiveness (Kwong, 2001; Brewster & Fager, 2000).

Most teachers think praise builds students' self-confidence and competence (Atherley, 2002; Brewster & Fager, 2000; Davis, 1993), but research shows that when it is overused or used inappropriately, praise can do considerable damage. For example, when teachers praise students simply for getting a correct answer, many students interpret the praise as evidence of their low ability. Researchers emphasize that students should be praised for their effort and persistence, rather than for their intelligence or skills (Black, 2000; Brophy, as cited in Black, 2000; Budge, 2000; Dweck, 1999; Thompson, 1997). In fact, Dweck's (1999) study of fifth graders found that students who were praised for being intelligent subsequently chose simple tasks that allowed them to continue looking smart. By contrast, students who were praised for their effort and persistence, rather than their natural intelligence, selected more challenging tasks. Dweck (1999) concluded that students who were praised for their intelligence measured themselves according to their teachers' feedback and became dependent on praise to maintain their self-confidence.

13. **Use rewards sparingly.** Educators don't universally support the use of rewards in academic settings. As previously discussed, some educators believe the use of extrinsic motivators can actually have a negative effect on students' intrinsic motivation (Butod, 2008; Baldes et al., 2000; Ingram, 2000; Kohn, 1999). Others contend that rewards provide an additional source of motivation and support for students. They claim that while some students have their own intrinsic motivation, others need more guidance and reinforcement in order to be motivated (Malouff et al., 2008; Sasson, 2007; Weller, 2005; Center for Teaching Excellence, 2000; Palardy, 1999). The Association for Childhood Education International stated that enhancing children's learning relies on a range of motivational strategies that include intrinsic and extrinsic rewards that are responsive to the individual child and relevant to the specific task (Jalongo, 2007). When rewards are used, most experts advocate using them sparingly and tying them to clear and realistic performance standards (Butod, 2008; Northwest Educational Technology Consortium, 2005; Brewster & Fager, 2000; Ingram, 2000; Chance, 1993).
14. **Convey enthusiasm.** Teachers' enthusiasm about teaching and learning has been shown to have a positive effect on students' motivation. When teachers aren't interested, students will not be interested. Material should be presented with energy and enthusiasm. Experts suggest that teachers vary volume, voice pitch, and tone; speak in an expressive way; move about while teaching; and make eye contact with their students (Malouff et al., 2008; Vanderbilt University, 2008; Deci, as cited in Education Week, 2006; Portal & Sampson, 2001; Center for Excellence in Teaching, 2000; McCall, 1999; Kane & Warner, 1997; Davis, 1993).
15. **Promote social interaction.** Social interaction is a strong intrinsic motivator. It allows students to compare their abilities, opinions, and emotions to those of their peers and tends to generate further interest in academic topics (National Academy of Sciences, 2005; Weller, 2005; Luna et al., 2002; Center for Excellence in Teaching, 2000). Experts agree that assignments are more engaging

when students share what they are learning in reciprocal relationships. When students complete assignments that are only read by the teacher, they enter into a nonreciprocal relationship because in most cases, the teacher already knows and has no real need for the information students are providing (Brewster & Fager, 2000; Strong et al., 1995). Activities that promote social interaction in the classroom include:

- cooperative learning groups (Center for Excellence in Teaching, 2000);
- group projects and problem-solving experiences (Deci, as cited in Education Week, 2006; Renchler, 1992);
- peer tutoring (Baltes et al., 2000);
- literature circles or book clubs (Luna et al., 2002); and
- arranging the classroom in ways that encourage interaction (Malouff et al., 2008).

16. **Develop positive relationships with students.** Students respond with interest and motivation to teachers who show genuine care and respect. Teachers should be approachable, interact with students individually, and demonstrate personal concern for each student's well-being (Butod, 2008; Malouff et al., 2008; Eggleton, 2007; Learning Point Associates, 2007; Sasson, 2007; Himes, 2000; Palardy, 1999; Hughes, 1995; Harris, 1991).
17. **Create a learning community.** Researchers agree that in order for students to actively engage in the learning process, they need to feel they are part of a community that promotes a sense of belonging, respect, and trust. Students must feel comfortable expressing personal viewpoints, assessing one another's contributions, and asking questions (Kelly, 2009; Jalongo, 2007; Sasson, 2007; Auster & Wylie, 2006; National Academy of Sciences, 2005; Nieto, 2005; Weller, 2005; Baltes et al., 2000; Lumsden, 1994).

Researchers have found that students are less engaged in classrooms in which they feel threatened or judged. Students must believe they will not be embarrassed when they participate in classroom activities or discussions and that it is safe to take learning risks (Dweck, as cited in Education Week, 2006; Atherley, 2002; Portal & Sampson, 2001; Rogers & Renard, 1999).

18. **Foster self-confidence.** Students who feel confident about their skills and abilities tend to be more motivated than those with lower levels of self-confidence (Butod, 2008; National Academy of Sciences, 2005; Portal & Sampson, 2001; Baltes et al., 2000). Dweck (cited in Education Week, 2006) stated it is extremely motivating when students are taught that intellectual skills are expandable. Her *Brainology* program teaches students that every time they learn new things, their brains form new connections and over time, school work makes them smarter. Budge (2000) reported that individualized computer-based work increases self-confidence because it allows students to keep working until they get the correct answers. The opportunity for students to attain mastery at their own pace reassures those who may have lost confidence in their learning abilities.
19. **Reduce students' anxiety levels.** Severe anxiety is incapacitating and students who feel anxious in class are not motivated to learn (Sasson, 2007; Martin, 2003; Portal & Sampson, 2001; Center for Excellence in Teaching, 2000). Teachers should minimize students' performance anxiety by setting clear and realistic goals and encouraging students to view mistakes as information that will help them improve in the future (Weller, 2005; Martin, 2003). Intense competition between students should also be avoided. Competition produces anxiety that can interfere with learning. Studies have found that students are more attentive, demonstrate better comprehension, and produce more work when they work cooperatively in groups, rather than compete as individuals (Northwest Educational Technology Consortium, 2005; Atherley, 2002; Baltes et al., 2000; Center for Excellence in Teaching, 2000; Davis, 1993).

20. **Arrange classrooms appropriately for particular tasks.** Several researchers have concluded that students' motivation levels can be affected by their classrooms' layout and design. Seating arrangements have been found to influence how long students remain on task and engaged in their work (Brewster & Fager, 2000; Budge, 2000; Intervention Central, n.d.). Bonus and Riordan (1998) suggested that teachers consider the goals of individual activities when determining how to arrange seats in the classroom. In their study of on-task behavior in second and third grade classrooms, they found that students remained engaged in learning longer when their desks were arranged appropriately for the task at hand (for example, U-shaped arrangements for class discussions and rows for test taking).

Summary

Research indicates that motivation is a strong predictor of student achievement and that educational settings can influence students' levels of motivation. The basic principles of motivation are the same for all students, regardless of age, gender, and ethnicity. In order to be highly motivated, students need to feel a sense of competence, autonomy, and self-initiation and they must develop positive social relationships with their classmates.

Studies have found that intrinsically motivated students (those who enjoy learning for its own sake) earn higher grades and achievement test scores, prefer more challenging tasks, and retain information and concepts longer than externally motivated students (those who perform in order to receive a reward). A review of the research on extrinsic rewards' impact on student motivation found that positive feedback enhances intrinsic motivation, while indiscriminate use of tangible and symbolic rewards can actually lead to decreases in intrinsic motivation. Most researchers have concluded that rewards should be used sparingly and must be clearly linked to realistic performance standards.

Research has shown that teachers can influence student motivation and that certain practices make assigned work more engaging for students at all levels. This report presented 20 research-based strategies that educators can use to increase students' levels of motivation, such as connecting learning to students' lives; emphasizing learning for its own sake; providing students with multiple opportunities for success; giving students control over their own learning; praising students for their effort and persistence, rather than for their intelligence or skills; and promoting social interaction within the classroom.

All reports distributed by Research Services can be accessed at <http://drs.dadeschools.net>.

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