

## **From the Outside In: An Intrinsic Motivational Framework for Preservice Teachers**

**By Kristin Guest and Alan Hilton**

*Perhaps the most important single cause of a person's success or failure educationally has to do with the question of what he (sic) believes about himself.*

—Arthur W. Combs

As the number of students who are “educationally at risk” grows, and special education students are increasingly included in general education classrooms, teachers need more skills than ever in fostering optimal student motivation. Preservice teachers must be familiar with a variety of strategies which will help them motivate their students to work independently and accomplish academic tasks. Many teachers resist motivational approaches which rely heavily on the use of extrinsic reward structures. In recent decades educators have been exposed to an expanded knowledge base related to intrinsic motivational strategies which can be incorporated into preservice teacher preparation.

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This article will provide a brief review of selected literature on intrinsic models of motivation and suggest a variety of motivational strategies appropriate for preservice teachers. In so doing, a framework for conceptualizing a continuum of motivational approaches ranging from extrinsic, teacher controlled strategies to intrinsic, student controlled strategies is proposed.

### **Intrinsic Motivational Models: A Selected Review**

John Atkinson's (1964) theory of motivation is based on the concept of "achievement motivation" formulated by David McClelland (1961). McClelland postulated that, over time, human beings acquire a "need" for achievement, a need which varies in degree among individuals, and which leads some students to be primarily success oriented whereas others seek to avoid failure. Atkinson described the tendency to approach tasks as determined by a stable factor (need for achievement) combined with two situational factors (expectations for success and pride). The contrasting tendency to avoid tasks is determined by a stable factor (fear of failure), again combined with two situational factors (expectations for failure and shame).

Several cognitive theorists have explored the impact of belief systems on motivation. Julian Rotter's social learning theory (1977) proposed that individuals' thoughts or beliefs about what leads to rewards are more important in their future behavior than the reward itself. Rotter labeled individuals' beliefs regarding the contingencies of reinforcement "locus of control" (LOC). Students with an internal locus of control believe that events or outcomes are contingent on their own behavior or a relatively stable trait such as ability. Students with an external locus of control, on the other hand, perceive events as caused by unstable factors over which they have no control. Significantly, if students perceive a reward as being the result of something outside of their control, that reward will not influence future behavior because they will not expect their behavior to be rewarded again in the future. Rotter further suggested that students develop a generalized tendency toward an internal or external locus of control based on their past experiences; these generalized beliefs may lead the student to reject contradictory evidence in any specific situation.

Bernard Weiner's attribution theory (1979, 1985, 1986) extended Rotter's locus of control concept, identifying individuals' "causal attributions" in detail. Among the most common attributions Weiner said individuals cited for their achievements or failures were ability (*e.g.*, "It figures that I'd do well because I'm smart," or "I'm dumb in math so no wonder I failed the test"), effort (*e.g.*, "Well, I really worked hard on the research for that paper"), task difficulty (*e.g.*, "That test was really hard"), or luck (*e.g.*, "I was really lucky that I studied all the right material for the test"). Like Rotter, Weiner noted that these factors differ in the degree to which students perceive them to be stable and under their control.

Several other theorists have also studied the impact of attributions on motivation. Martin Seligman & Steven Maier (1967) noted significant consequences of students' attributions on the motivation to engage in future tasks. The set of maladaptive behavior called "learned helplessness" may result for students who attribute their failures to causes which they cannot control ("Why try when it won't

make any difference?”). Feelings of shame, or the anticipation of feeling ashamed are emotional consequences of attributing failures to internal causes which may inhibit students from pursuing achievement tasks. Richard DeCharms (1976, 1984) and Edward Deci (1975) addressed the reasons for the powerful effect of attributions by identifying a need to feel self-determining as a basic human need. Carol Dweck's research (Dweck, 1980, 1986; Henderson & Dweck, 1990) noted important differences in beliefs about intelligence and responses to difficult academic tasks between high and low achievers.

Albert Bandura (1986, 1988, 1991, 1992) labeled students' personal evaluations of their ability to succeed at a given task "self efficacy." Bandura's concept of self efficacy includes a sense of skills mastery. He argued that students must experience what they judge to be increases in their own skills or knowledge in order to feel efficacious. If students do not feel efficacious, they may not exert effort on tasks even if they are rewarded by others and their performance is superior to that of others. High self efficacy, according to Bandura, leads students to be willing to work hard on tasks, to develop problem-solving strategies, to experience less fear and anxiety, all of which will affect their achievement.

Other theorists have described some of the means by which students develop perceptions related to control of outcomes and competence. Two of these processes are social comparisons and teachers' communication of high expectations. Social comparisons are powerful means, particularly during the early elementary school years, of feedback to students about how capable they are at tasks (Schunk, 1983, 1985). The social comparisons children make depend on their ages and levels of cognitive development (Veroff, 1969) as well as the situation and characteristics of those to whom students compare themselves. Social comparison research (Ruble, Boggiano, Feldman, & Loebl, 1980; Ruble, Feldman & Boggiano, 1976) showed that by fourth grade, children use social comparisons to help evaluate their performance abilities, and these social comparisons become a means (observational) of obtaining self-efficacy information.

The expectations which teachers communicate to students, often unconsciously, represent another factor demonstrated to exert a powerful influence on students' motivation and learning. Research on effective teachers has consistently concluded that when teachers hold high expectations for student learning, students achieve at a higher level than when teachers do not have uniformly high expectations (Austin, 1979; Brookover, 1979; Duke, 1982; Edmonds, 1979; Leithwood, 1982; Lipham, 1980). Teachers treat students whom they perceive as bright and high achieving differently than students whom they consider low ability and low achieving (Grayson & Martin, 1984; Rosenthal, 1974; Sadkar & Sadkar, 1986). Differences have been identified in clusters of behaviors related to response opportunities, feedback given, and the socioemotional climate created for high and low achieving students.

The theories of intrinsic motivation discussed differ in particulars, but all

emphasize the important role cognition and affect play in motivation to learn and perform. Several critical concepts emerge which have important implications for teachers. First, a history of repeated failure can lead students to believe that they are “helpless” in relation to achievement. Such beliefs lead them to perceive themselves as lacking in ability, and to lower their expectations for success in the future. Second, these learned belief structures can lead students to assume that continued effort in the face of difficulty will not lead to success in as much as their efforts will not affect their achievement. Third, if facing difficult tasks, students may show decreased effort and inadequate use of problem-solving strategies which then result in performance below their capabilities. These students may also begin to avoid the tasks on which they have previously encountered difficulty. Finally at an affective level, failure, which is attributed to insufficient ability and a lack of control, leads to strong negative feelings, which have debilitating effects on subsequent performance.

### **Classroom Strategies to Enhance Intrinsic Motivation**

Knowledge of motivational theories and research is critical for teachers, but theoretical knowledge is not enough. Preservice teachers must also be able to translate their theoretical understanding into classroom practice. In doing so, developmental considerations are important. Unfortunately, specific developmental implications in relation to motivation models have, in general, been little explored. Most theorists discuss their models as general explanatory constructs for understanding motivation, with little consideration of differential implications depending on student age. An exception, noted above, is social comparison research (Ruble, Boggiano, Feldman & Loebel, 1980; Ruble, Feldman & Boggiano, 1976; Veroff, 1969) which showed that such comparisons become important means of obtaining self-efficacy information by fourth grade. It may, therefore, require additional effort for teachers of upper elementary, middle school and high school students to help students shift their performance evaluations from peer comparison to students’ own past performance, goal-setting, effort expended and task strategies used.

Bruce E. Compas, Gerard A. Banez, Vanessa Malcarne, and Nancy Worsham (1991) provide a valuable developmental perspective on both changes and consistencies during later childhood and early adolescence in children’s perceptions of control and the relationship between perceived control and strategies used by children to cope with stress. Research these authors review concluded that emotional distress is lower when problem-focused coping is used and perceived control is high. The relationship between control beliefs and problem-focused coping seems to emerge fairly early in development (as early as age six), implying that such motivational strategies as attribution retraining, with its attempt to enhance students’ perceptions of control over learning outcomes, may be ineffective with very young elementary children. This approach may become increasingly important

with older elementary, middle and high school students as control beliefs increasingly affect problem-focused coping. In general, teachers should select motivational strategies appropriate to the developmental level of their students. The next section attempts to bridge theory and practice through discussion of a variety of strategies which can be incorporated in preservice teacher preparation.

#### ***Teacher Controlled Extrinsic Reinforcement Models***

The emphasis on theoretical bases for intrinsic motivational models does not obligate the teacher to move totally away from the use of external rewards and reinforcements. Certainly behavioral models enjoy the test of time and their effectiveness under specified circumstances has received broad empirical support (Alberto & Troutman, 1986; Bellack, *et. al.* 1982; Catania & Brigham, 1978; Craighead *et. al.*, 1976; Karoly & Kanfer, 1982; Kazden, 1984; Krumboltz & Thoresen, 1976; Meichenbaum, 1977; Sulzer, Azaroff & Mayer, 1986). The use of behavioral approaches and especially reinforcement strategies may be particularly important in two ways. First, high levels of external reinforcement are an efficient and rapid method to use to build new skills. Teachers often verbally reinforce the approximations of skills that are being attempted by students. This shaping may be an especially important approach when teaching students to move toward more intrinsic models.

In some cases, teachers have relied heavily on the use of reinforcement systems on a continuing basis. This can lead to a tendency to lose sight of the situation in which extrinsic reinforcers are necessary and helpful, and when they may actually decrease motivation. Margaret Cohen (1985) suggested that:

Perhaps the most important guideline to rely upon when contemplating the use of reinforcement is the axiom that behavior modification is designed to teach new behaviors or to increase behaviors which occur with low probability. Otherwise, the effects of using reinforcement can actually diminish the frequency of behavior or undermine students' existing motivation to perform. (p. 7)

Extrinsic reinforcement techniques employed by the teacher must be gradually reduced and ultimately eliminated when the new skills are consistently being used by the student. The long-term objective is to fade out the extrinsic reinforcements as new skills and behaviors become solidified and the natural reinforcers in the environment become operative.

Until students gain self direction, the teacher may find it necessary to use external approaches to maintain the motivation to use new skills that will ultimately lead to more internal motivation. It may also be desirable to use external approaches to bring students to a fluent level of usage of the new skills.

Teacher praise certainly represents one of the external strategies most widely-taught to preservice teachers. But praise itself can be used to help move students toward intrinsic motivation. Jere Brophy (1981) noted that praise is most effective

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when it is specific and contingent, and when it moves from teacher-evaluative comments to comments which help students recognize their own accomplishments and their efforts which led to those accomplishments, thus encouraging a more intrinsic focus.

A final note concerning the use of external rewards must be included in this discussion. The teacher is required, in most cases, to provide grade(s) based on student performance. This role forces the use of an external measure of student achievement. The teacher who is truly committed to moving students to internal motivation standards should help students focus on the personal reasons the grade is important, *e.g.* students' gain of new skills.

#### *Teacher Managed Approaches*

**Teacher Expectations.** Deborah Stipek (1988) suggested the following to avoid the negative effects of expectations. Teachers who hold high expectations need to recognize that the specific expectations for success are defined by individual students' level and learning ability, not a general group expectation. These levels must be determined by gathering valid and reliable data concerning the child, and then working with the student, setting individual expectations. These expectations must be flexible and modifiable, based on the on-going performance of the student within the curriculum. Finally, teachers must not give up on the child but keep focusing, as successful teachers do, on the fact that the student can learn and in so doing be successful (Alderman, 1985).

**Teacher Feedback and Evaluation.** How teachers give feedback to students and evaluate their work can also be powerful influences on student performance (Brophy, 1981; Gross & Drabman, 1979; Locke, Cartledge & Koepfel, 1968; Van Houten *et. al.*, 1980; Kazdin & Mayer, 1976). Because the anxiety of external evaluation may inhibit intrinsic interest in a task and efforts toward achievement, the focus in providing the student with feedback and evaluation should be on fostering self evaluation. This involves such practices as doing away with grades and substituting substantive, corrective feedback, and/or de-emphasizing grades by shifting the focus to individual improvement and task mastery. Teachers should assist students in assessing their own progress toward their goals and objectives. This may be done in a manner which recognizes the student's efforts and competence, thus enhancing the student's feelings of responsibility and control over the learning outcomes.

When working with students with a history of failure, where severe avoidance or active resistance has to be overcome, thinking in terms of long range effects of motivational strategies is important. Initial efforts must be directed toward re-engaging the student in the learning process, with less focus on short-term performance outcomes.

*Student Managed Strategies*

**Goal Setting Strategies.** Goal setting has emerged from several researchers as a key element in the enhancement of intrinsic motivation (Deshler, Schumaker, & Lenz, 1984; Fewell, 1984). Many students who are low achievers tend to select tasks that are either too easy or relatively difficult, thereby either lessening their chance to take pride in their accomplishments (if the task is too easy) or leading to failure (if the task is too difficult). If goals are too easy, students tend to attribute their successes to ease of the task; if goals are too difficult, students will be unable to achieve success. The target, therefore, in enhancing intrinsic motivation is to help students take on more responsibility for their goals and learn to establish realistic goals and to increase perceptions of control over their successes.

The key seems to lie in helping students set goals and select tasks which are difficult enough to require some effort but which are also closely matched to the students' skill level. In doing so, students assume personal responsibility for success, and begin to perceive success as related to their effort. An additional key involves helping students learn to accept their limitations without devaluing themselves or their ability to learn. If goals are realistic, students are more likely to attribute failure to achieve the goal to insufficient effort, because they see the task as manageable.

A comprehensive strategy for teaching students effective goal setting approaches involves several elements: regular initial meetings between the teacher and students to set specific measurable goals for the week; follow-up conferences to review progress, discuss difficulties encountered, and help students come up with additional strategies for accomplishing their goals; praise for setting goals and for the efforts toward their accomplishment. Teachers can model the process by articulating their own classroom goals and efforts toward their accomplishment as well as difficulties encountered and strategies used to overcome them. Worksheets and practice exercises in relation to goal setting may provide additional assistance (*e.g.*, Deshler *et. al.*, 1984; Fewell, 1984). Finally, students should have choices about the difficulty level on a portion of the assignments (*e.g.*, spelling lists with different numbers of points assigned for mastering "easy" or "hard" words, defined on the basis of individual students' performance on a pretest).

**Attribution Retraining.** John W. Thomas suggested that "the extent to which students see themselves as cause of their own behavior may be the single most important determinant of continued motivation" (Thomas, 1980, p. 231). From the perspective of attribution theorists, one of the most powerful approaches which classroom teachers can take with students who have appeared unmotivated in the past is to teach them to reattribute their learning outcomes to factors which are under their control. Critical among these factors is effort. Attribution change programs attempt to model, cue, and reinforce students for attributing effort as a cause of their

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success. Assuming attainable goals, teachers may help students focus on their efforts, and verbalize the importance of effort as a cause of success. When a student fails, for example, a teacher might say, "I don't think that you were really concentrating," suggesting that the teacher believes the student has the ability to succeed if she or he applies herself or himself to the task. Similarly, when a student succeeds on a task, the teacher might comment that, "You really paid attention and worked hard and, as a result, you figured out how to do these problems." The goal with attribution retraining is to help students focus on effort rather than outcome.

**Effective Task Strategies.** Related to the focus on students' efforts as a critical element in their success is a focus on what Barbara Licht (1983) labeled "ineffective task strategies." Special needs children who have experienced much failure in classrooms may have experienced difficulty in part because of specific ability deficits (Licht, 1983). Retraining to attribute achievement to effort may cause an unrealistically high evaluation of their abilities. Success on most school tasks requires more than just effort; students must also apply effective learning strategies in order to achieve classroom success. If effort is stressed as a sole cause for success, the child may become even more discouraged if she or he puts forth effort but still fails at tasks for which the increased effort was insufficient. In fact, previously held negative beliefs about limited ability and/or chance for success may be strengthened as the child confronts the fact that she or he failed in spite of increased effort. Attribution of failure to ineffective strategies is, therefore, an important complement to a focus on effort as a causal factor in achievement.

Children with learning disabilities often fail to employ planful, organized strategies that are within their ability level (Torgesen & Licht, 1983), and differences between students with learning disabilities and other students appear in the use of effective strategies even when both groups are exerting similar effort (Kotsonis & Patterson, 1980). A focus on task strategies can help students examine and perhaps switch strategies to complete a task if initial efforts are unsuccessful. Such a focus addresses simultaneously both the cognitive dimension, or the child's attribution of failure to effort rather than ability, and the behavioral dimension, through a focus on alternative strategies.

**Coping with Failure.** The majority of reattribution studies focus on reducing the effects of learned helplessness and developing in the child the sense that failure is surmountable. But most students will encounter failure at times. And those students with a history of failure are particularly likely, as noted previously, to give up early in the face of difficulty. They may also be motivated more by avoidance of failure than by a need to achieve. To intervene, several things must be accomplished by the teacher. First, the student must begin to believe that she or he does have some control over success and has the possibility of achieving it on his or her own. Second, the negative consequences of failure must be removed so that the student can risk attempting the task. Finally, the student must also have some



strategies for coping with failure when it arises. Teachers may need initially to accept performance which is below established standards in order to convince the student that some mistakes are acceptable. The first goal, in other words, must be simply to have the student attempt tasks, with the possibility for refinements in accuracy later. All of the student's initial efforts must be encouraged. An initial grade might be given with the opportunity to re-study and re-take a test, or try another time at a task until the performance is acceptable to the student and to the teacher.

A number of programs have developed specific procedures for helping students cope with failure when it arises. For example, in the TARGETS program (Fewell, 1984), students discuss the fact that if problems arise in the course of achieving their goals, they may need to adjust either the goals or their behaviors, and to discuss when these adjustments are necessary. Philip Kendall and Lauren Braswell (1985) describe a cognitive strategy to assist impulsive children with problem solving. They instruct a child to attend systematically to the following steps: (1) recognize that there is a problem and identify its features; (2) initiate a strategy that will help move toward a problem solution; (3) consider the options; and (4) take action on the chosen plan. Although specific evaluation data are not provided as part of the descriptions of these programs, they have the potential to provide students alternatives when faced with problems or failure, and thus increase the chances of reversing previously maladaptive ways of responding to failure.

**Self Monitoring and Self Rewarding.** The process of self monitoring and rewarding acceptable performance is another approach that teachers may select to teach students. In its simplest form, the process involves teaching students that when their performance reaches an established criterion they may reward this performance in a predetermined manner. With this approach students take responsibility for administering something of value to themselves (*e.g.*, computer time, time with a favorite teacher or reading a book). The payoff is rapid and appropriate to the needs or wants of the individual child. Self rewarding by itself may have limited effect on increasing motivation. On the other hand, when combined with goal setting and self evaluation, the approach becomes a powerful tool for increasing some students' motivation and performance (Paris & Oka, 1986).

Self rewarding involves three steps. These are goal setting (defining of the behavior or product desired), self monitoring or self correcting, and self reinforcement. In this three step process, the teacher may initially need to be quite involved in teaching the process and monitoring to insure that previously extrinsically motivated children are following the steps. As students move toward a feeling of greater self control, they become more intrinsically motivated, the teacher's role changes to more of an observer and facilitator who helps students achieve their goals more and more efficiently.

## Conclusion

A colleague of the authors who worked in a large first-year teacher support program found that the single greatest concern among these first-year teachers, ahead even of classroom management concerns, was how to motivate students. It is imperative that preservice programs attend to these perceived needs. To the extent that teacher preparation programs can equip preservice teachers with sound theoretical knowledge of motivation and a repertoire of varied motivational strategies, these teachers will be able to play a more active role in providing the situational conditions to optimize student motivation to learn. Future research is needed to develop further the optimal relationship between motivational strategies suggested and student age and developmental level.

The framework outlined in this article could be introduced early in preservice preparation with opportunities for prospective teachers to observe and practice the varied strategies in field experience and student teaching settings. Reflective analyses of the teachers' attempts to use the strategies could serve as valuable follow-up, reinforcing understanding of motivational issues, and strengthening their problem-solving skills and self-efficacy as teachers. To fail to provide teachers with such knowledge and skills may be to doom some students to further cycles of educational failure.

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