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CONCEPTUALIZING STUDENT MOTIVATION

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Abstract

Because classrooms are work settings in which students are engaged in compulsory activities and the work involved is largely intellectual rather than physical, concepts and measures developed for studying motivation in free-choice play situations have limited application to the study of student motivation for engaging in academic activities. More attention is needed to the cognitive aspects of motivation (not just its affective aspects) and to the value that students place on academic activity (not just their performance expectations and attributions). This paper discusses these issues and offers suggestions about how teachers might become more successful than they presently appear to be in socializing their students to become motivated to learn—that is, to seek to acquire the knowledge or skill that an academic activity is designed to develop and not merely to get the activity finished or do the minimum necessary to meet requirements.
CONCEPTUALIZING STUDENT MOTIVATION

Jere Brophy

I am an educational psychologist with strong interests in the potential of educational psychology for providing guidance to classroom teachers. In this regard, I find the theory and research of educational psychology to be rich and useful as sources of guidance to teachers in some areas but much less so in other areas. One of the latter areas is student motivation to learn. Although large literatures exist on the general topics of motivation and learning, I believe that educational psychology has relatively little to say to teachers about how to develop motivation to learn in their students. In this article, I identify some of the reasons for this problem and offer some suggestions for conceptualizing and studying classroom motivation that might produce more applicable information.

Definition of Motivation to Learn

By "student motivation to learn" I mean both a general trait and a situation-specific state. As a general trait, motivation to learn refers to an enduring disposition to value learning for its own sake—to enjoy the process and take pride in the outcomes of experiences involving knowledge acquisition or skill development. In specific situations, a state of motivation to learn exists when students engage themselves purposively in classroom tasks by trying to master the concepts or skills involved. Students who are motivated to learn will not necessarily find classroom tasks intensely

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1This paper will appear in an upcoming issue of Educational Psychologist.

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pleasurable or exciting, but they will take them seriously, find them meaningful and worthwhile, and try to get the intended benefit from them.

I believe that everyone is born with the potential to develop such motivation to learn and possibly even with a predisposition toward it in the form of innate curiosity. However, it appears that the degree to which it develops as a general trait, and also the list of specific situations in which it functions as a motivational state, are determined by conditioning and learning experiences. Individuals learn to value certain activities and outcomes over others, and they gradually develop stable beliefs and expectations about their likes and dislikes, strengths and weaknesses. Eventually, their motivation in general and especially in specific situations can be described rather well by what has become known as expectancy x value theory: The degree of effort that individuals will put forth in attempting to reach a particular goal will be a function of the value they place on reaching the goal and their expectancy of being able to reach it if they do make the effort.

So far, my comments fall generally, but not entirely, within the conventional social learning theory approach to motivation. One difference in emphasis, if not substance, is that I have chosen to define classroom motivation as motivation to learn rather than merely to perform, and I have stressed that valuing the actual processes of learning (as distinct from their outcomes) should be included as basic to motivation to learn. This emphasis on valuing the learning process is minimized or lacking in the major theoretical approaches that have shaped research on motivation.

Most social learning approaches have stressed the concept of reinforcement. These approaches construe effort expenditure on tasks as instrumental behavior motivated by a desire to produce outcomes that will be rewarded (usually through rewards extrinsic to the task itself). Typically, there is
little or no emphasis on the potential reward value of engaging in the processes involved in working on the task or attaining the natural consequences of these processes (increases in knowledge or skill). Achievement motivation approaches stress level of aspiration, goal setting, and achievement striving. This is closer to what I would call motivation to learn, but the emphasis is more on meeting standards of excellence than on valuing the processes of learning or their natural outcomes. Finally, attribution theory approaches concentrate on success or failure outcomes and their attribution to perceived causes. Here again, the emphasis is on whether or not the performance is successful according to some standard of excellence and not on the processes and natural outcomes of engaging in the task itself.

In expectancy x value theory terms, my criticism of most existing approaches to classroom motivation is that they have concentrated on the "expectancy" part of the equation while relatively ignoring the "value" part (see also Parsons & Goff, 1980, on this point), and, in particular, ignoring the fact that students can learn to value learning for its own sake. This notion has not been ignored completely, of course. It appears in most discussions of curiosity or intrinsic motivation, and, in particular, it is implied in the work of Maehr (1976) on what he calls "continuing motivation" and in the work of Condry and Chambers (1978), Kruglanski (1978), and Lepper (1981). The latter writers have shown that quality of task engagement is higher and concern about quality of the output or product is greater when people choose to engage in tasks for their own reasons than when they engage in the tasks for exogenous reasons (to earn rewards or avoid punishment) or are distracted by other exogenous considerations (the need to meet time limits or production schedules; the desire to win a competition).
The definition and approach to classroom motivation taken here has much in common with the writings of these authors. Here again, though, it differs in emphasis. Rather than focusing on explaining differences in performance of individuals with different motives or differences in the performance of the same individual under different motivating conditions, the present approach focuses on classroom teachers and considers how they can increase their students' motivation to learn (as defined above).

Before taking up these issues directly, however, I will set the stage by showing how student motivation to learn in classrooms differs in many respects from the types of motivation typically studied by psychologists, and that it must, therefore, be conceptualized differently. Most of these differences stem from the facts that classrooms are work settings rather than free-choice or play settings and that most classroom work is cognitive rather than physical.

**Classrooms Are Work Settings**

Most research on motivation has been conducted in play or recreation settings or in situations where the people being studied can choose from a menu of activities. Furthermore, the very measures of motivation used typically involve choice of one activity over another, voluntary resumption of an activity interrupted earlier, or voluntary persistence with an activity when there is no longer any external pressure to persist. These are appropriate methods for studying people's behavior under conditions where many choice options are available and little or no pressure is placed on them to do anything in particular.

The classroom, however, is a work setting in which students must cope with activities that are compulsory and subject to evaluation, not a play
setting offering free choice according to personal preferences. Conceptualizations of student motivation to learn must take this into account. During academic activities, students are not playing ring toss games or trying to solve interesting puzzles. They are responding to intellectual challenges in a public setting, under conditions in which their performance will lead not only to subjective judgments of success or failure but to external evaluation and subsequent reward or punishment. Choice of activities is not a useful measure of motivation in this situation, because such choice is seldom provided. Persistence on activities may be a more useful measure, although it is necessary to know about the meanings and levels of difficulty of tasks for individual students in order to interpret measures of time on task with respect to student motivation to learn.

The most direct and valid measures, however, would appear to be those that go to the heart of motivation to learn as I have defined it: measures of the degree to which students take tasks seriously and try to get the intended benefits from them rather than merely going through the motions, doing the minimum, or just trying to get them done without being concerned about how well they are done. The level of effort devoted to concentrating on the teacher or the text during information acquisition activities or on performing during practice or application assignments is clearly relevant, but it is not the whole story. The notion of motivation to learn adds the additional stipulation that the expended effort is devoted to realizing the learning objective (acquiring the information, perfecting the skill, or producing a quality product), and not to some irrelevant or contradictory purpose.

Traditional concepts can apply in this situation, of course, but they need to be qualified or elaborated. For example, student motivation to learn can be described using social learning concepts, especially those favored by
contemporary cognitive approaches to behavior modification. Thus, goal setting, self monitoring, and self reinforcement can be construed as aspects of motivation to learn, although the emphasis would be on monitoring and reinforcing progress toward learning goals rather than toward attainment of extrinsic rewards. A similar qualification would apply to applications of concepts from achievement motivation theory. Attribution theory concepts would be relevant, too, but in addition to attributions for success or failure, there would be consideration of students' attributions concerning the reasons for their engagement in activities and the relationships between these reasons and the quality of their engagement.

There are many parallels between students' motivation for school activity and workers' motivation on the job. Both are public settings in which the activities are compulsory but nevertheless lead to consequences of reward or punishment, and yet both provide opportunities for the workers to develop intrinsic motivation for, and derive personal satisfaction from, the work. Educational psychologists interested in classroom motivation have much to learn from industrial psychologists' findings on supervisor characteristics, work settings, and characteristics of the work itself that affect worker satisfaction and productivity. It is clear that many workers are intrinsically motivated in the sense that they try to do their job not merely acceptably but well, even though work is compulsory for them and their pride in craftsmanship garners few if any extrinsic rewards. Information about factors that motivate workers to develop such devotion to what is basically a duty rather than a freely chosen activity should be useful in developing systematic methods for motivating students to learn in classrooms.
Academic Work is Primarily Cognitive

With occasional exceptions such as penmanship practice or speed-oriented arithmetic computation drills, most academic activities are primarily cognitive, calling for considerable mental effort (concentration, information processing and integration, thinking and problem solving) but relatively little physical effort. I believe that this fact implies two important conclusions about motivation: first, that findings developed from studies of motivation for tasks that required primarily physical rather than mental effort are not only irrelevant but misleading if applied to motivation to learn in classrooms, and second, that the task facing teachers is not one of maximizing motivation but of optimizing it and thereby maximizing the learning that students will derive from engaging in academic activities.

Regarding the first conclusion, consider the literature on achievement motivation. Early work using tasks such as ring toss games suggested that achievement motivation is maximized when the probability of success is 50%. Writers attempting to generalize these data to the classroom have sometimes claimed that student motivation will be maximized when classroom tasks are calibrated to produce a 50% success rate. This conclusion is inappropriate for several reasons. First, later work clarified that the 50% figure refers to the person's subjective estimate of the probability of attaining his/her own goal and not to a score of 50% on some absolute scale. Thus, theoretically, teachers could maximize students' achievement motivation by inducing them to set performance goals at levels that they believed they had a 50% chance to attain. The absolute levels of performance that would correspond to these subjective estimates of 50% chance of attainment would vary with individual students.
This only takes into account success seeking, however, and does not consider fear of failure. Individuals who are driven more by a fear of failure than by a desire to achieve success will seek to avoid achievement situations in which their chances of success hover around 50% and instead will seek situations in which the probability of success is either much higher, near 100%, or much lower (such that the failure is not "real," because success was not really expected anyway). This was seen even in many children studied individually in ring toss games and other play settings. In the classroom, where activities are compulsory, performance is often public, and failure has a variety of negative consequences, few if any students are likely to be maximally motivated in situations where they believe they have only a 50% chance of succeeding. A much higher norm, closer to 100%, is more probable.

Furthermore, given that most of the tasks in question involve cognitive rather than physical work, a much higher norm is not merely preferable but necessary. Process-product research indicates that learning proceeds most smoothly when it involves continuous progress achieved through small, easy steps with consistent success all along the way. Novelty and challenge are important, but overly difficult tasks produce confusion and discouragement. The degree of cognitive strain that would be produced by tasks that allowed students only a 50% success rate would be so great as to discourage most students and make learning difficult if not impossible for most of the rest.

One also needs to bear in mind that most studies of motivation involved single brief encounters with the individuals studied, but that students attend school for nine months a year for 12 or more years. They may occasionally take satisfaction in being pushed to their limits, but they understandably do not want to be placed into this position routinely. In this regard, Harter (1978) has shown that students feel motivated when they experience success
with what they perceive as reasonable effort but are discouraged when they achieve success only with sustained maximal effort. Taken together, these considerations show why motivation to learn by engaging in cognitive tasks in the school setting must be conceptualized differently from motivation to perform physical tasks in play settings.

The conclusion that motivation to learn needs to be optimized rather than maximized also stems from several other considerations. In a sense, this is a commonplace restatement of traditional theorizing. Motivation traditionally has been construed as a state of arousal or drive that energizes people and orients them toward instrumental behavior that will have the effect of need satisfaction or drive reduction. The relationship between motivation and performance is believed to follow an inverted-U curvilinear form, such that performance is highest when motivation is at an optimal level and is lower when motivation is either below or above the optimal level. Furthermore, the optimal level is known to vary with task complexity: High levels of drive or arousal maximize performance on simple tasks, but performance on more complex tasks is maximized at lower levels of motivation. In other words, it helps to be maximally "psyched up" if one's task is to break down a door or win a 50-meter dash, but such high drive can be distracting and counterproductive if one's task is to solve some problem that requires sustained mental concentration and thought.

The latter description characterizes most academic tasks facing students in classrooms. Performance is likely to be optimal on such tasks when student motivation is positive (in the sense that the students are oriented toward the tasks and free from distractions, anxieties, and fear of failure) but not necessarily high in any absolute sense. It is not only unnecessary but probably inappropriate in most situations to have students "psyched up" to the
point of high physiological arousal or excitement. (This is unlikely to occur naturally in learning situations in any case; if it does, it is likely to be in connection with a test or a competition in which attention is focused on the potential reward rather than on the learning gain, if any, to be derived from the activity.)

Optimal motivation in academic learning situations not only is low in intensity but has a less psychophysiological, more cognitive quality than traditional arousal level or drive concepts connote. Berlyne's concept of epistemic curiosity is closer, although it seems to apply more to knowledge-seeking behavior in free choice situations than to students' attempts to master the school curriculum. White's concepts of effectance and competence also appear relevant, although like achievement motivation concepts, they seem to apply more to the process of setting and striving for goals than to the process of learning per se. A more appropriate concept is that of flow as described by Csikszentmihalyi (1975), in which people experience direct, immediate rewards from engaging in the processes involved in activities: sense of control, clear perception of feedback, merging of thought and awareness, loss of self-consciousness, and an intense feeling of enjoyment. These flow experiences typically occur during self-chosen recreational activities. However, later work (Graef, Csikszentmihalyi, & Giannino, 1981) has shown that many people experience them at work or in other settings in which they are engaged in compulsory activities.

Recent work by developmental psychologists on metacognition and by cognitive behavior modification theorists on self-monitoring and self direction through inner speech gets at the more cognitive aspects of what I am calling motivation to learn. In addition to affective components, such motivation includes planful, goal oriented concentration on the content to be learned or
the task to be mastered. Information processing is active and accompanied by metacognitive awareness of intention to learn and progress in doing so. Yet, attention is focused on the material or the task, not the self. Similar conceptions of optimal motivation to learn have been suggested recently by Nicholls (1979) and by Corno and Mandinach (1983).

Some evidence for this conception of optimal motivation for classroom academic tasks is seen in Diener and Dweck's (1978) studies of "mastery oriented" and "helpless" students. The "helpless" students had been selected because they displayed symptoms of learned helplessness in coping with academic tasks: They gave up easily when they encountered difficulty or frustration, concluding that the task was too hard for them and that no amount of persistence or effort would enable them to succeed at it. To the extent that they did try to persist in the face of difficulty or frustration, the ability of these "helpless" students to analyze the problem and generate possible solutions was impaired by distracting thoughts of hopelessness, despair, or negative self evaluation. Their ability to concentrate was invaded by negative affect, anticipation of failure, and so on. In contrast, the mastery oriented students were not distracted by such negative affect and perceptions of helplessness when they encountered difficulties, so they were free to concentrate on analyzing and solving the problem. Their attention was focused on the academic content rather than on themselves. This not only enabled them to persist longer in the face of frustration, but to be more likely to cope with problems effectively.

It is worth noting here that the motivational state of the mastery oriented students was not the mirror image of that of the helpless students. Although the helpless students were distracted from the task by negative affect and negative self evaluations, the mastery oriented students were simply
absorbed in the task without giving much thought to their emotions or to evaluating their performance. They did not become upset when they encountered difficulties, but they did not experience feelings of pride or exhilaration when they solved the problems, either. They did not tell themselves that they were stupid or that the task was too hard, but neither did they tell themselves that they were bright or that the task was easy. When they encountered difficulties, they did not take time out to give themselves pep talks or remind themselves that they were capable students. Instead, they concentrated on the material and employed appropriate coping and problem solving strategies. In general, they concentrated on the task itself and not on themselves or the quality of their performance.

In summary, both logical analysis and some available evidence suggest that the motivational state that is optimal for engagement in academic tasks is more like a mellow state of flow than like a state of high drive or arousal, and that it has cognitive components involving a desire to obtain the intended learning benefits (increased understanding or skill) that the task is intended to produce. Ideally, students will be free from anxiety, fear of failure, and other distractions (including distractions such as seeking to win a competition or attain an extrinsic reward), and will value both learning in general and the present learning activities in particular. They will be relaxed and oriented toward learning, however, rather than "psyched up" or oriented toward evaluating their performance with reference to externally formulated standards of excellence. They will be relaxed and task oriented rather than tense and ego oriented.

There are times, of course, when a less relaxed, more performance conscious orientation is appropriate. This would include all test situations, as well as test-like situations such as group competitions or drill exercises in
which speed is required in addition to accuracy. However, these situations are (or at least should be) atypical. Most of students' time in classrooms is spent in lessons and seatwork activities designed to help them learn the material rather than to assess the extent of their learning. Thus, most of the time, a motivational state that could be described as relaxed but learning oriented would be optimal. Students would focus more or less continuously on absorbing new material and mastering skills, but in a relatively effortless way, without a continuing sense of urgency, intensity, or being tested to the limits of their capacities to respond. They would see and appreciate their advances in knowledge and skills, but such self evaluation would occur mostly during reflection upon learning activities after they had been completed. During the activities themselves, attention would be focused on the task rather than the self.

**Stimulating Student Motivation Through Socialization**

As explained above, much of the literature on motivation is of limited value to teachers, because it concerns free-choice play situations rather than work situations and because it concentrates on the affective aspects of motivation to the relative neglect of the cognitive aspects. Another problem is its concentration on motivational states or traits as predictors of differential behavior, to the relative neglect of study of how those motivational states or traits were developed in the first place.

When attention is confined to students' existing motivational systems, individual differences do seem to present formidable problems to teachers. We know, for example, that anxious and dependent students respond well to teacher praise and encouragement but not to teacher challenge or criticism, and that confident, independent students have the opposite pattern. Some students
prefer material rewards, others prefer symbolic rewards, and still others prefer special-privilege rewards. It is not yet clear how powerful these individual differences in response to teacher motivation efforts may be (relative to common responses). It is possible that teachers' motivational activities (unlike their instructional activities) typically may have more powerful interaction effects than main effects and that the interactions involved typically would be disordinal rather than merely ordinal. Thus, instead of facing a situation in which the same basic set of motivation strategies works for all students but must be used more often or intensively with some students than others, teachers may be facing a more complex situation in which different students need different motivational strategies, and application of a strategy that increases motivation in some students may decrease motivation in others.

Eden (1975) has suggested a general theory of motivation that incorporates this idea. He assumes that, for a given person in a given situation, certain motives are relevant and others are not, so that the effect of tying performance of a particular task to a motive will depend on the relevance of that motive to that person at that time. If task performance results in the delivery of some relevant motivational consequence, there is likely to be a (probably substantial) increase in motivation to perform the task. However, if task performance results in delivery of some irrelevant motivational outcome, there is likely to be a (probably small but real) decrease in motivation to perform the task. Eden's article presents evidence in support of this theory (although it does not refer specifically to student behavior in classrooms).

Such theorizing leads to the suggestion that, where possible, teachers should provide students with choices of what assignments to do or when and
how to do them. The notion of a reinforcement menu that allows students to apply their "earnings" toward the "purchase" of reinforcers that are most personally appealing to them follows from the same principles. These ideas are useful as far as they go, but there are inherent limitations in what teachers can accomplish if they confine themselves to catering to students' existing motivational systems. If feasible, the strategy of choice would appear to be to develop desirable motivation systems in students through systematic socialization. Since motivation systems are learned, it is certainly possible to do this in theory. Whether teachers can do it in a reasonable time working within the constraints under which they must work remains to be seen. My own thinking on the matter is presented in the following sections.

Qualitative Aspects of Motivation

In addition to its quantitative aspects discussed previously (level of arousal), motivation has several qualitative aspects that should be considered when socializing students. As shown in Table 1, students' attitudes toward particular classroom tasks can be construed as lying on a continuum from negative through neutral to positive. They also can be characterized as concerned with factors endogenous to the task (the processes involved in engaging in the task and the learning it engenders) versus exogenous to the task (focused on the self or on the anticipated consequences of task performance rather than the task), and as concerned either with the value that the student places on the task or with the expectations that the student has for succeeding on the task or being rewarded for performance.

Theory and research on classroom motivation have focused much more on manipulation of task-exogenous factors to control student behavior than on attempts to develop intrinsic motivation by focusing student attention on
Table 1
Qualitative Aspects of Students' Motivation Related to Specific Academic Tasks

<table>
<thead>
<tr>
<th>Direction</th>
<th>Task Endogenous Motivation</th>
<th>Task Exogenous Motivation</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Task Value Focus</td>
<td>Task Value Focus</td>
</tr>
<tr>
<td>Negative</td>
<td>Affect: Anger or dread.</td>
<td>Affect: Alienation, resistance. Student doesn't want to acquire this knowledge or skill.</td>
</tr>
<tr>
<td></td>
<td>Student dislikes the task, which is in effect a punishment.</td>
<td>Cognitive: Perception that one cannot &quot;win,&quot; that one has no realistic chance to earn desired rewards, satisfactory grades, etc.</td>
</tr>
<tr>
<td></td>
<td>Cognition: Task focus is &quot;invaded&quot; by resentment, awareness of being coerced into unpleasant or pointless activity.</td>
<td>Cognition: Perceptions of conflict between what this task represents and one's self concept, sex role identification, etc. Anticipation of undesirable consequences to involvement in such tasks.</td>
</tr>
<tr>
<td>Neutral</td>
<td>Neutral attitude toward task; open minded (if new) or indifferent (if familiar).</td>
<td>Neutral; the knowledge or skills developed by the task elicit neither avoidance nor excitement.</td>
</tr>
<tr>
<td></td>
<td>No particular expectations; neither success nor failure are salient concerns.</td>
<td>No extrinsic consequences are expected; performance will neither be rewarded nor punished.</td>
</tr>
<tr>
<td>Positive</td>
<td>Affect: Enjoyment, pleasure. Engagement in this task is a reward in its own right.</td>
<td>Affect: Energized, eager to learn this knowledge or skill (for its instrumental value).</td>
</tr>
<tr>
<td></td>
<td>Affect: Satisfaction (perhaps occasional excitement) as skills or insights develop. Pride in craftsmanship, successful performance.</td>
<td>Affect: Excitement, happy anticipation of reward.</td>
</tr>
<tr>
<td></td>
<td>Cognition: Relaxed concentration on the processes involved in doing the task. &quot;Flow.&quot; Metacognitive awareness of what the task requires and how one is responding to it. Focus on the academic content when learning, and on the quality of the product when performing.</td>
<td>Cognition: Recognition that the task is a subgoal related to attainment of important future goals (often as a &quot;ticket&quot; to social advancement). Focus on the &quot;relevant&quot; aspects of the learning.</td>
</tr>
<tr>
<td></td>
<td>Cognition: Perception of progress toward goals, achieved with relative ease. Attribution of (successful) performance to (sufficient) ability plus (reasonable) effort. Focus on one's developing knowledge and skills.</td>
<td>Cognition: Recognition that one can attain desired rewards with relative ease. Focus on meeting stated performance criteria.</td>
</tr>
</tbody>
</table>
task-endogenous factors, and much more on motivating students to perform than on motivating them to learn. Such an emphasis appears to imply that school learning is necessarily unappealing to students and thus must be motivated through reward and punishment. In fact, although there does not seem to be anything inherent in school activities to support this expectation (especially in this age of enlightened teachers and attractive school curricula and materials), it may have become true through self fulfilling prophecy effects of the near-universal tendency to view classroom motivation as a matter of finding ways to manipulate students to engage in (presumably unappealing) tasks rather than a matter of teaching students to find meaning and satisfaction in tasks that are appealing (or at least potentially appealing, if initially neutral). An analogy with classroom management may be apropos here. Historically, most approaches to that topic treated it, in effect, as if it were a matter of discipline in which knowledgeable but uncooperative students were to be pressured into doing what they were not inclined to do naturally. In recent years, however, research has shown that effective classroom management is much more a matter of instructing willing but ignorant students in classroom rules and routines, with much more emphasis on instruction, modeling, cueing, and feedback than on manipulation through reward and punishment. It seems likely that parallel findings might emerge in the area of classroom motivation if research can be designed to allow such discoveries (particularly research on teachers who seem to be highly successful in motivating their students).

In any case, as shown in Table 1, attempts to improve student motivation can address task endogenous as well as task exogenous factors and can address the value placed on learning in addition to expectations concerning level of performance. It should be noted that although Table 1 refers to student
motivation with respect to particular tasks in particular situations (motivational states), similar considerations apply to more general motivational traits. Thus, students can be construed as generally negative through neutral to positive in their attitudes toward school tasks and their expectations for successful performance. For simplicity, I will concentrate on Table 1 and task-specific motivational states, although occasional reference to motivational traits will appear in the subsequent discussion.

**Counteracting Negative Motivation**

The types of positive task motivation described in the bottom of Table 1 cannot reasonably be expected to develop in students who are burdened by negative attitudes, anxiety, fear of failure, and the other types of negative motivation described in the top of Table 1. Thus, for these students, the process of socializing positive motivation to learn must begin with attempts to eliminate negative motivation.

Conventional approaches to this task focus on fear of failure, learned helplessness, and related problems associated with expected failure outcomes attributed to low ability. For these problems, social learning theorists would program for continuous progress and consistent success, achievement motivation theorists would train students to set challenging but achievable goals, and attribution theorists would train students to attribute poor performance to insufficient effort rather than to lack of ability. I would expect each of these approaches to have some positive effects, but I see the need for two caveats in using the goal setting or attribution retraining approaches.

First, the task must be appropriate to the student. "Appropriate" is taken here to mean offering the prospect of success with reasonable effort.
If the task is too difficult for the student, it will not be possible to set goals that are reasonably achievable, and it will not be valid to attribute failure to lack of effort rather than ability. This may seem obvious and not worth mentioning, but classroom researchers who have examined the assignments given to students have concluded that it is very common for students to be given assignments that are much too difficult for them (Fisher, Berliner, Filby, Marliave, Cahen, & Dishaw, 1980; Jorgenson, 1977). Without appropriate assignments, there appears to be no hope of creating positive student attitudes toward classroom tasks.

A second caveat concerns the focus on effort, to the exclusion of ability, in attribution training approaches. It is clear that students must perceive effort-outcome covariation (i.e., perceive that levels of outcome depend on levels of effort, such that increases in effort are likely to produce increases in outcome) if they are to put forth serious efforts on classroom tasks. It is also clear that "helpless" students attribute their failures primarily to low ability rather than to low effort. One should not conclude from these facts, however, that motivation (or performance, for that matter) will be maximized when successful outcomes are attributed entirely to effort. Harter (1978) has shown that motivation is higher when students achieve success with what they perceive as reasonable effort than when they achieve success only with what they perceive as sustained maximal effort, and Covington and Omelich (1979) have shown that students much prefer to be seen as both able and hard working than merely as hard working. Thus, in training students to make success attributions, there should be emphasis on ability as well as effort—the students should be led to conclude that they have the ability to meet the demands made on them if they make reasonable efforts to do
so. This is quite different from training them to expect success only if they consistently extend themselves to their limits.

Assuming appropriate tasks, and with these caveats in mind, it appears that recently developed approaches to reversing failure expectations and related helpless behaviors can be effective in improving both motivation and performance. Diener and Dweck (1978) have shown this in their attribution retraining efforts, as have Bandura and Schunk (1981) in their program for developing perceptions of efficacy through proximal goal setting. Various techniques of cognitive behavior modification (Meichenbaum, 1977) designed to "innoculate" students against anxiety or stress and train them to persist in the face of confusion or frustration also seem applicable here.

In addition to these approaches concerned with changing performance expectations, however, we could use approaches concerned with changing task values. Many students simply do not enjoy the process of working on school tasks. Often, of course, this is because the tasks they are given are too difficult for them, and the problem can be eliminated by prescribing more appropriate tasks and preparing them more effectively to handle the tasks they are assigned. Assuming that the problem is not task difficulty but something about the task itself, however, what can be done to improve the situation? Lepper and Gilovich (1982) provide some suggestions about how uninteresting tasks can be made more interesting by making them more game-like by inducing children to set personal goals or to enrich the task with fantasy (such as pretending to be an astronaut collecting rock samples on the moon when picking up objects from the floor). Other possibilities are suggested in the following sections.

Probably more common than the problem of dislike for the actual processes involved in the task is the problem of resistance to improvement in a task
(even when success could be achieved with ease) because the perceived consequences of such improvement are unacceptable. This is often seen in connection with sex typed tasks (Parsons & Goff, 1980). Certain boys may resist artistic or poetic activities, for example, and certain girls may resist mathematics or science activities. At a more sophisticated level, certain career oriented individuals may avoid learning typing or computer programming for fear of being pigeon holed into jobs that they do not desire. The root problem in these situations (i.e., when a person could do well at a task but chooses not to) usually is some kind of conflict between the task (or whatever the task represents to the person) and the person's self-concept. Pep talks and the like probably will not help here, although "active listening" (Gordon, 1974) and related counseling techniques might. Modeling of task participation by individuals with whom the person identifies is likely to be even more effective.

**Developing Positive Motivation**

Various sources of negative motivation must be eliminated if what I have called "motivation to learn" is to develop. However, eliminating negative motivation merely sets the stage for development of positive motivation; it is a necessary but not sufficient condition.

Nor is it sufficient to be merely neutral. A neutral stance toward classroom tasks is, in effect, a slightly negative stance given the realities of classroom life. That is, if students simply do not care about the processes involved in an academic task, or about its outcome, there is no positive motivation to counteract the probable negative motivation associated with the fact that the task will involve some effort (it will be work, not play), done under some form of accountability pressure and with the prospect of evaluation and consequence of outcome.
Just as workers who do not derive intrinsic satisfaction from their work will put forth reasonable effort when the work is not too demanding and the boss is well liked (or at least respected), students who lack enthusiasm for their school work will "go along to get along" with a teacher who is seen as making reasonable demands and having the characteristics of a "good boss." Teachers who want more than this minimal level and quality of task engagement, however, will have to take more direct action to motivate their students to learn. A variety of strategies has been suggested.

**Task Exogenous, Performance Focused Strategies**

To date, most approaches to classroom motivation have stressed manipulation of student behavior through offering incentives or rewards for successful task performance. This is an effective way of motivating students to perform (assuming that the students expect to be successful and thus gain access to the rewards), but by itself, it does nothing to develop student motivation to learn. In fact, to the extent that the rewards are salient and attractive, and to the extent that task performance is seen merely as instrumental behavior engaged in in order to get the rewards rather than for its own sake, students are likely to concentrate on whatever will maximize their rewards rather than on acquiring the knowledge or skills that the task was designed to develop. The result may be a piecework mentality, in which students concentrate on efficiently doing the minimum necessary to obtain rewards, without valuing the activity itself or aspiring to gain understanding or produce a high quality product.

The likelihood of these undesirable effects of rewards can be minimized by tying their delivery to quality rather than mere quantity of performance, and by seeing that the task itself, and not just the expected reward, is
salient to the student. Guidelines for accomplishing this are shown in Figure 1. These guidelines are phrased with respect to the delivery of verbal praise, but the same general principles apply to the delivery of other types of reward, as well.

Task Exogenous, Value Focused Strategies

After controlling student performance through rewards, the next most common approach to classroom motivation is to try to stimulate students to value a task because the knowledge or skills that it teaches will be needed in their present or future lives outside of school. This is still a task exogenous approach, because it portrays whatever the task teaches as a tool or ticket to social advancement, rather than something useful in its own right. Still, it moves closer to what I have been calling "motivation to learn," because it focuses on the learning developed by the task, rather than merely on the consequences of performance outcome. Also, this approach links the knowledge or skills taught by the task to motives and goals developed naturalistically by the student, rather than to situationally bound and artificially applied consequences. This should provide for more continuity between in-school performance of the task and the rest of the student's life.

This approach to motivation is probably effective, at least when tasks are portrayed as subgoals leading toward long range goals that students have adopted and expect to be able to attain. However, I suspect that it is not used as often as it could be, and that when it is used, it is often used in self-defeating ways. Rather than stress the positive by identifying the present or future application value of what is being learned, many teachers stress personal embarrassment ("You don't want people to think that you are ignorant") or future educational or occupational disasters ("You'll never get
Effective Praise

1. is delivered contingently
2. specifies the particulars of the accomplishment
3. shows spontaneity, variety, and other signs of credibility; suggests clear attention to the students' accomplishment
4. rewards attainment of specified performance criteria (which can include effort criteria, however)
5. provides information to students about their competence and of the value of their accomplishments
6. orients students toward better appreciation of their own task-related behavior and thinking about problem solving
7. uses students' own prior accomplishments as the context for describing present accomplishments
8. gives recognition of noteworthy effort or success at difficult (for this student) tasks
9. attributes success to effort and ability, implying that similar successes can be expected in the future
10. fosters endogenous attributions (students believe that they expend effort on the task because they enjoy the task and/or want to develop task-relevant skills)
11. focuses students' attention on their own task-relevant behavior
12. fosters appreciation of, and desirable attributions about, task relevant behavior after the process is completed

Ineffective Praise

1. is delivered randomly or unsystematically
2. is restricted to global positive reactions
3. shows a bland uniformity that suggests a conditioned response made with minimal attention
4. rewards mere participation, without consideration of performance processes or outcomes
5. provides no information at all or gives students information about their status
6. orients students toward comparing themselves with others and thinking about competing
7. uses the accomplishments of peers as the context for describing students' present accomplishments
8. is given without regard to the effort expended or the meaning of the accomplishment
9. attributes success to ability alone or to external factors such as luck or (easy) task difficulty
10. fosters exogenous attributions (students believe that they expend effort on the task for external reasons--to please the teacher, win a competition or reward, etc.)
11. focuses students' attention on the teacher as an external authority figure who is manipulating them
12. intrudes into the ongoing process, distracting attention from task-relevant behavior

Figure 1. Guidelines for effective praise.³

through sixth grade," "How are you going to get a job if you can't do basic math?"). Other teachers use variations that cast the student in a more positive light but portray society as a hostile environment ("Learn to count so that merchants don't cheat you." "Learn to read so that you don't get taken when signing a contract.") Rather than stir up such fears, teachers would do better to help students appreciate their developing knowledge and skills and come to value these for their own sake in addition to whatever application value they may have. Also, unless handled carefully, attempts to stress a task's instrumental value for future activities can have the effect of devaluing the task itself (by making it seem to be just a hurdle in one's path rather than an intrinsically worthwhile activity).

Task Endogenous, Performance Focused Strategies

In order to stimulate true motivation to learn, teachers will have to supplant (or at least supplement) the task exogenous approaches described above with task endogenous approaches designed to foster student appreciation for learning itself and for its outcomes as represented by gains in knowledge and skill. Task endogenous, performance focused approaches attempt to help students to become more aware and appreciative of the knowledge and skills that they develop as a result of their learning efforts and to take pride in what they are able to accomplish when they apply what they have learned.

It is not clear from the literature how this can be accomplished most effectively, but provision of relevant concepts and labels seems important (you can't appreciate what you don't see or understand). Students need concepts and language to help them articulate situational goals and think about end products in terms of understanding, skills, or accomplishments (not merely task completion or compliance with minimal requirements). Such concepts and
labels are useful both for stating the objectives of learning activities (thus helping students to formulate specific goals) and for evaluating performance and giving feedback later. This is especially important for repetitive practice activities in such subjects as grammar, computation, or penmanship. To begin with, students should be aware that such practice is important because the ultimate goals—writing and problem solving in life situations—cannot be accomplished efficiently until their relevant subskills are mastered to levels of smooth, accurate performance, such that they can be integrated with other relevant subskills and applied effortlessly as needed (analogies to the importance of isolated skill practice in developing integrated athletic performance might be useful here).

In addition, though, students need concepts and labels to describe the immediate outcomes of their learning efforts. It is probably more meaningful and motivating to think about a reading assignment in terms of “understanding why slavery flourished in the South but not in the North” rather than “studying history,” to learn to “divide when there is both a decimal point and a remainder” rather than merely to “do math problems,” or to learn to “adjust your writing position so that you stay on the line and maintain the same slant as you move across the page” rather than merely to “practice your penmanship.” Similarly, feedback phrased with reference to such goals should be more meaningful and motivating than grades or general evaluative comments that do not mention specific, qualitative aspects of performance.

Task Endogenous, Value Focused Approaches

Motivational attempts in this category would be geared toward stimulating students to value or enjoy the actual process of working on academic tasks, hopefully to the point that they would frequently experience something like
Csikszentmihalyi's "flow" when doing so. Here again, this is unlikely to occur unless teachers are able to provide students with relevant concepts and labels to use in learning to monitor and appreciate their learning efforts. Recent work on stimulating students' general metacognition seems relevant here, as well as approaches developed to accomplish more specific goals, such as stimulating students to develop an active learning set in approaching academic content, to notice content outlines and headings that show how material has been organized, to identify main ideas in paragraphs, to check for understanding by summarizing content in their own words, or to generate their own questions about content for follow-up discussion or research. In addition to teaching curriculum content per se, teachers could be coaching their students in learning to learn skills, self regulation, independent problem solving, and the like.

These suggestions are not radical departures from existing approaches to classroom motivation, but they differ in focus or orientation. They involve cuing or goal setting, but with respect to task processes rather than just to task outcomes. They involve attributions, but focus on attributions concerning the specific reasons for engaging in tasks rather than attributions of performance outcomes to causes. They suggest ways that teachers might make academic tasks more meaningful and intrinsically motivating to students, but go beyond appeals to existing affect or personal interests by calling for socialization of the more cognitive aspects of task engagement—helping students to recognize the opportunity that academic tasks provide for exercising or extending knowledge and skills.

These suggestions about presenting specific tasks to students can be extended to include general modeling and socialization designed to stimulate students to value learning (both in its own right as a satisfying, mind
expanding activity and as a means of equipping one to succeed in society and to live a richer, more stimulating life). Also important here is socialization designed to develop appreciation for accomplishments and pride in craftsmanship. Teacher modeling of these motivational traits is probably essential here, in that teachers who do not possess such traits themselves seem unlikely to develop them in their students. It also seems likely, however, that such modeling will not be sufficient by itself, and that teachers will also have to be able to provide students with the concepts and labels that they will need to sustain task endogenous orientations toward academic activities.

Thus, it is not enough to urge students to work carefully or do their best; in addition, it is necessary to show them how to approach tasks with an orientation toward gaining the potential benefits inherent in them, and how to monitor their progress in doing so. That socializing motivation to learn as a general trait is a viable possibility is suggested by Graef, Csikszentmihalyi, and Gianinno (1981), who found that the tendency to find intrinsic value in work is more a personal trait or individual difference variable than a task or situation variable in the everyday lives of the people they studied.

In any case, references to task endogenous reasons for engaging in academic tasks appear to be rare in the classrooms, and those that are observed tend to focus on the affective rather than the cognitive aspects of motivation. This was seen in a study of the task presentation statements made by six elementary (grades 4-6) teachers observed during reading and mathematics activities. The main hypothesis of this study, that teachers' task presentations that suggested positive expectations about the task or its outcomes would yield high student engagement and teachers' task presentations that suggested negative expectations about the task or its outcomes would induce low
task engagement, yielded mixed results (Brophy, Rohrkemper, Rashid, & Goldberger, 1983) and will not be discussed here.

For present purposes, however, consider the descriptive data shown in Table 2. Only 28% of teachers' task introductions could be described as potentially fostering task endogenous motivation. Some of these were intended to challenge the students by suggesting goals or performance standards to aim for, and the rest were statements to the effect that the teacher expected the students to do well at the task or to find the task personally meaningful or enjoyable. The self-actualization-value category, which was designed to include statements described here as task endogenous and value focused, was the only category never used. None of the teachers ever even mentioned the possibility that students might derive cognitive benefit or satisfaction from engaging in the tasks, let alone conducted anything like the systematic socialization of task endogenous, value focused, motivation to learn just described. Given what is said about classroom motivation in most sources of advice to teachers, perhaps this should not be surprising.

Evidence of motivation to learn is also lacking in students. Anderson (1981), for example, found that students questioned about their seatwork assignments talked mostly in terms of getting them done and showed little awareness of or interest in the knowledge they were supposed to be developing. Rohrkemper and Bershon (in press) found that, of 49 students questioned, two were concerned only about getting finished, 45 were concerned about getting the correct answer, and only two mentioned trying to understand what was being taught. Corno and Mandinach (1983) and Blumenfeld, Hamilton, Wessels, and Meece (1983) have also expressed concern about students' low quality of engagement in classroom tasks. The situation seems unlikely to improve until
Table 2
Classifications of 317 Task Presentation Statements Made by Six Elementary School Teachers

<table>
<thead>
<tr>
<th>Task Endogenous, Value Focused Statements</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apology (teacher apologizes to the students for foisting this task upon them)</td>
<td>1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Cues negative expectation (teacher indicates directly that the students are not expected to like the task or to do well on the task)</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Cues positive expectation (teacher states directly that the students are expected to enjoy the task or to do well on it)</td>
<td>52</td>
<td>16</td>
</tr>
<tr>
<td>Self-actualization value (teacher suggests that students can develop knowledge or skill that will bring pleasure or personal satisfaction)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Teacher enthusiasm (teacher directly expresses his or her own liking for this type of task)</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task Endogenous, Performance Expectation Focused Statements</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive challenge/goal setting (teacher sets some goal or challenges the class to try to attain a certain standard of excellence)</td>
<td>18</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task Exogenous, Value Focused Statements</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embarrassment (teacher tries to show the importance of the task to the students, but does this in a negative way, indicating that they are likely to be embarrassed at some time in the future if they do not learn the skills involved)</td>
<td>1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Survival value (teacher points out that students will need to learn these skills to get along in life or in our society as it is constructed presently)</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>Personal relevance--other (teacher makes some other kind of statement that tries to tie the task to the personal lives or interests of the students)</td>
<td>10</td>
<td>3</td>
</tr>
</tbody>
</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher personalizes (teacher expresses personal beliefs or attitudes directly or tells the students about personal experiences that illustrate the importance of this task)</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Task Exogenous, Performance Expectation Focused Statements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threats/punishment (teacher threatens negative consequences for poor performance)</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Accountability (teacher reminds students that the work will be carefully checked or that they will be tested on the material soon)</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Recognition (teacher promises that students who do well on the task will be recognized with symbolic rewards, hanging up of good papers in the classroom, etc.)</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Extrinsic reward (teacher promises reward for good performance)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Other (Unclassified) Statements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time reminder (teacher reminds students that they only have limited time to get the assignment done so they had better concentrate)</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Cues effort (teacher urges students to work hard)</td>
<td>31</td>
<td>10</td>
</tr>
<tr>
<td>Continuity (teacher notes relationship between this task and previous work students have done, especially recently)</td>
<td>29</td>
<td>9</td>
</tr>
<tr>
<td>None (teacher launches directly into the task with no introduction)</td>
<td>68</td>
<td>21</td>
</tr>
</tbody>
</table>

Note. This table is based on data presented in Brophy (1982).
teachers begin to use task endogenous, value-focused motivational strategies much more often than they do now.

**Conclusion**

Most of the literature on motivation has been developed from the study of free-choice behavior in play situations, but school is a work situation in which students engage in compulsory activities that require primarily mental rather than physical effort. Under these circumstances, although the more overt aspects of task performance can be manipulated through reward and punishment, development of motivation to learn (not merely to meet minimal requirements) will require attention to the more qualitative and cognitive aspects of academic task engagement. Freedom from anxiety, fear of failure, and other types of negative motivation, as well as opportunities to work on tasks of appropriate difficulty level, appear to be necessary (but not sufficient) conditions to allow development of motivation to learn. Assuming the presence of those necessary conditions, the degree to which that development occurs would appear to depend on the degree to which students are socialized to value learning opportunities for their own sake, enjoy the actual processes of learning, recognize and appreciate advances in knowledge and skill, and take pride in craftsmanship as they work on assignments. More attention to these aspects of classroom motivation is needed in conceptualizing the topic, designing research, and communicating with teachers.
References


