Much motivational research has examined the role of attributions, or perceived causes of outcomes (Pintrich & Schunk, 2002). Attributions are important because theory and research show that attributions have differential effects on motivation (Weiner, 1992).
There are many different attributions; for example, ability, effort, task ease/difficulty, luck, strategy use, help from others, environmental conditions. Of all attributions none has been studied more than effort. Effort is a commonly used attribution and also highly valued by parents, teachers, counselors, coaches, and employers (Schunk, 1982; Weiner, 1992).

This article addresses the effects of effort attributional feedback on motivation and performance. Effort attributional feedback is oral or written feedback by others that links performance outcomes with effort (Schunk, 1983). By understanding the role of effort attributional feedback, parents and practitioners will be able to work with students and clients to help them develop beliefs that facilitate motivation and performance.

THEORY AND RESEARCH EVIDENCE

Attributions were introduced to the psychological literature by Heider (1958). Drawing on his work, Weiner (1979) formulated an attributional model applicable to achievement contexts. In this scheme, attributions are categorized along three dimensions: locus (internal or external to the person), stability (relatively stable or unstable over time), and controllability (largely controllable or uncontrollable by the person). Effort is internal, unstable, and controllable, which is quite favorable for motivation. People who succeed at a task and believe that they can continue to work hard are likely to expect future success and be motivated to expend the effort. People who do not work hard and perform poorly on a task are likely to be motivated to continue if they believe that harder work will produce success.

Much research has examined whether providing people with effort attributional feedback counteracts potentially dysfunctional attributions and enhances motivation and performance. For example, people may perform poorly on a task and believe they lack the ability to do well. We might expect that providing them with feedback linking the outcome with effort (e.g., "You didn't do well because you didn't work hard enough. Work harder and you'll do better.") will negate potentially negative attributions and keep people motivated.

Early research on effort attributional feedback showed its predicted benefits. Dweck (1975) identified children who had low expectations for success and whose achievement behaviors deteriorated after they failed (e.g., low effort and persistence). Dweck gave children arithmetic problems to solve (some of which were insolvable) to determine the extent of performance decline after failure. Children mostly attributed their failures to low ability. During the training sessions, children solved problems with a criterion number set for each trial. For success-only children, the criterion was set at or below their capabilities as determined by the pretest. A similar criterion applied on most trials for attribution-retraining children, except on some trials the criterion was set beyond their capabilities. When these children failed they were told they did not try hard enough. On the posttest, success-only children continued to show deterioration in performance following failure, but attribution-retraining children showed less impairment.
Success-only children stressed low ability as the cause for failure, whereas attribution-retraining children emphasized insufficient effort. Other early investigations showed that teaching students to attribute failures to low effort enhanced effort attributions, expectancies for success, and achievement behaviors (Andrews & Debus, 1978; Chapin & Dyck, 1976).

Later research addressed the role of effort feedback for success. In the context of subtraction instruction, Schunk (1982) found that linking children’s prior achievements with effort by telling them "You’ve been working hard" after they succeeded enhanced their task motivation, self-efficacy (perceived competence), and skill acquisition better than linking their future achievement with effort (e.g., telling them "You need to work hard") or not providing effort feedback. For effort feedback to be effective, students must believe that it is credible. Feedback is credible when students realistically have to work hard to succeed, as in the early stages of learning.

Effort feedback may be especially useful for students with learning problems. Schunk and Cox (1986) provided subtraction instruction and practice opportunities to middle school students with learning disabilities. Some students received effort feedback ("You've been working hard") during the first half of a multi-session instructional program, others received it during the second half, and learners in a third condition did not receive effort feedback. Each type of feedback promoted self-efficacy, motivation, and skill acquisition better than no feedback. Feedback during the first half of the program enhanced students' effort attributions for successes. Given students' learning disabilities, effort feedback for early or later successes may have seemed credible.

Young children attribute successes to effort, but beginning around age 8 they start to form a distinct conception of ability and continue to differentiate the concepts to early adolescence (Nicholls & Miller, 1984). Ability attributions become increasingly important, whereas the influence of effort as a causal factor declines. During arithmetic instruction and practice, Schunk (1983) found that providing children with ability feedback for prior successes (e.g., "You're good at this") enhanced perceived competence and skill better than providing effort feedback or ability and effort feedback combined. Children in the latter condition judged effort expenditure greater than ability-only children, and apparently discounted some of the ability information in favor of effort. In a follow-up study using a similar methodology, Schunk (1984) found that ability feedback given when children succeeded early in the course of learning enhanced achievement outcomes better than early effort feedback regardless of whether the ability feedback was continued or discontinued during the later stages of learning.

In summary, providing effort feedback to students in the early stages of learning usually is beneficial because they have to work hard to succeed. However, as skills develop less effort should be needed and thus it is more desirable for motivation to provide other types of attributional feedback, linking successes to students' skills, use of effective strategies, and the like.
It should be emphasized that inappropriate effort feedback can demoralize learners. Students who succeed with little effort might become discouraged if a teacher tells them they are working hard, because the students might believe that the teacher does not think they are competent. Students who work hard and still perform poorly also can be discouraged by effort feedback because they might believe that no amount of effort will produce success. These students do not need to be told to try harder. Instead, what they need is more instruction on basic skills and task strategies.

RECOMMENDATIONS

Effort attributional feedback will motivate people when they view it as credible (i.e., it matches their perceptions of the situation). Effort attributional feedback will not motivate and may be demoralizing if not credible to recipients. To maintain credibility, attributional feedback should change as skills develop. Effort feedback is credible in the early stages of learning but switching to skill or strategy use is more credible later on. If effort is not working more will not help. It also is helpful to provide feedback on controllable attributions (e.g., effort, strategy use) so that students do not attribute outcomes to factors outside of their control (e.g., luck, the weather).

CONCLUSION

Attributions can exert powerful effects on motivation. Effort attributional feedback can help shape students’ attributional thinking away from dysfunctional attributions. Effort feedback should not be overused. It is best in the early stages of learning and on difficult tasks, when greater effort can produce better results.

REFERENCES


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