Mentoring and Tutoring
Vol. 13, No. 2, August 2005, pp. 221–238

Increasing struggling learners' self-efficacy: what tutors can do and say

Howard Margolis*
Queens College of CUNY, Flushing, NY, USA

Self-efficacy is essential to motivation and learning. Compared to students with weak self-efficacy for academics, students with strong self-efficacy have higher motivation, make greater effort, persist longer, and achieve more. Unfortunately, struggling learners with weak self-efficacy often avoid academic tasks or give up prematurely, reducing the likelihood of academic success. Because tutoring usually occurs in one-to-one or small group situations, adult tutors are in an excellent position to enhance struggling learners' self-efficacy which, in turn, can improve academic outcomes. To achieve this, tutors need to understand the importance of self-efficacy, its sources, and how to strengthen weak or flagging self-efficacy. To assist tutors in strengthening learners' self-efficacy, this article discusses (a) the importance and sources of self-efficacy, (b) instructional principles derived from these sources, and (c) topics for future research.

School-age struggling learners can benefit from tutoring (Wasik & Slavin, 1993; Elbaum & Vaughn, 2000; Vaughn, *et al.*, 2003; Gordon, *et al.*, 2004). Hock, *et al.* (2001) found that tutoring improved the quiz and test scores of junior high students with learning disabilities and students at-risk for failing two or more academic classes; through tutoring, these students successfully learned to use learning strategies. Vaughn, *et al.* (2003) found that struggling readers in elementary school improved their reading more when they received one-to-one supplemental instruction or received supplemental instruction in groups of three as compared to groups of ten. Moreover, compared to groups of three, one-to-one instruction produced a higher percentage of struggling readers who achieved a minimum of six months' growth. These results support the frequent recommendation to tutor struggling learners (Allington, 2001; Gaffney, *et al.*, 2002; US Department of Education, 2003). As Harris and Sipay (1990) noted, 'Tutoring a child on a one-to-one basis is expensive … At times, [however, it] is the only way to produce results (p. 413).

*1067 Pendleton Court, Voorhees, NJ 08043, USA. Email: hm08043@yahoo.com

ISSN 1361-1267 (print)/ISSN 1469-9745 (online)/05/020221–18

DOI: 10.1080/13611260500105675

Yet, tutoring is not always effective. To a large degree its effectiveness depends upon the tutor's expertise: 'Tutor expertise and development of tutor instructional skills are thought to be key to improving the nature of tutoring interactions and the positive effects of tutoring on tutored students' (Hock, *et al.*, 2001, p. 174). Part of this expertise may be the tutor's skills in helping struggling learners' transform beliefs that they lack the ability to succeed into beliefs that they have the ability: the former is called weak or low or inadequate self-efficacy, the latter strong, high, or adequate self-efficacy (Bandura, 1997; Schunk & Zimmerman, 1997a; Linnenbrink & Pintrich, 2002; Guthrie & Davis, 2003; Walker, 2003).

This article discusses the sources of self-efficacy and shows how adult tutors can use instructional principles derived from these sources to strengthen the weak self-efficacy of school-age struggling learners. Because these instructional principles are generalizable, the article does not discuss particular subjects or the many different forms or models of tutoring; instead, it focuses on instructional principles that adult tutors can seamlessly apply and integrate in different situations. Clearly, tutors who are certified, experienced, competent teachers are likely to have more success with these principles than inexperienced aides, community volunteers, or college students. Nevertheless, if the latter group is properly chosen, trained, monitored, and supervised, and if highly qualified staff use data from current tutoring sessions to plan upcoming sessions, inexperienced tutors should be able to successfully apply these principles.

Struggling learners' self-efficacy

After years of struggle and failure, many school-age struggling learners have weak self-efficacy for succeeding in subjects or activities they find difficult (Gaffney *et al.*, 2002; Guthrie & Davis, 2003; Linnenbrink & Pintrich, 2003; Schunk, 2003). In other words, they believe they lack the ability to succeed in specific subjects (e.g. reading, writing, arithmetic) or aspects of a subject (e.g. when reading, they believe they will recognize the words, but not comprehend the materials) (Linnenbrink & Pintrich, 2002; Pajares, 2002; Guthrie & Davis, 2003; Schunk, 2003; Walker, 2003). Thus, struggling learners often avoid or resist the subjects or activities for which their self-efficacy is weak, haphazardly rush through work, or quit when they encounter slight difficulties, further impeding achievement (Linnenbrink & Pintrich, 2002; Pintrich & Schunk, 2002; Walker, 2003). As Allington and Cunningham (2002) asserted, 'No one works if they know that they will fail anyway' (p. 269).

The pessimistic belief—'I lack the ability to succeed'—is a major obstacle to academic success as self-efficacy influences both motivation and academic success (Bouffard-Bouchard, 1990; Pintrich & Schunk, 2002; Schunk, 2003). Multon *et al.*'s (1991) meta-analytic investigation concluded that self-efficacy beliefs were related to academic behaviors. Shell *et al.* (1989) found that self-efficacy was highly related to reading and writing achievement. Similarly, Linnenbrink and Pintrich (2002) concluded that 'both experimental and correlational research in schools suggests that [for all students] self-efficacy is positively related to a host of positive outcomes of

schooling such as choice, persistence, cognitive engagement, use of self-regulatory strategies, and actual achievement' (p. 315).

Because self-efficacy is a mediating variable that powerfully affects motivation (Tuckman, 1999; Zimmerman, 2000; Pajares, 2002; Pintrich & Schunk, 2002; Ormrod, 2003)—i.e. the desire to achieve a goal, the willingness to engage and persist in specific subjects or activities—and motivation powerfully affects learning and performance, tutors need to know how to help struggling learners transform weak into strong self-efficacy. Otherwise, tutors and struggling learners may find tutoring frustrating and ineffective. As Carnine *et al.* (1997) asserted, 'Unmotivated students will not receive the full benefit of increased instructional time, careful teaching, and a well-designed program. [They] … will continue making the same errors and will perform poorly on new skills' (p. 42).

Fortunately, one-to-one or small-group situations (three or fewer students) provide an ideal ratio for tutors to help struggling learners transform 'I can't do it' beliefs (weak self-efficacy) into 'I can do it' ones (strong self-efficacy). By stressing instructional principles derived from the sources of self-efficacy, tutors should be able to strengthen the self-efficacy—and thus the motivation—of many struggling learners (Schunk & Zimmerman, 1997a; Linnenbrink & Pintrich, 2002). In turn, strengthened self-efficacy and motivation increases the probability that learners will become more engaged in learning, will persist on moderately challenging tasks, and will make meaningful academic gains (Tuckman, 1999; Linnenbrink & Pintrich, 2002; Guthrie & Davis, 2003; Ormrod, 2003; Wigfield, 2004). Thus, tutors need to know how to strengthen struggling learners' motivation, motivation that often depends on the mediating role of self-efficacy (Tuckman, 1999; Zimmerman, 2000; Guthrie & Davis, 2003; Walker, 2003; Wigfield, 2004).

Sources of self-efficacy

Social cognitive theorists have identified four sources of self-efficacy that tutors can use to strengthen struggling learners' self-efficacy. In order of descending power, they are mastery experiences, vicarious experiences, verbal persuasion, and physiological state (Zimmerman, 2000; Linnenbrink & Pintrich, 2002; Pajares, 2002).

Recommendations for tutoring, derived from these sources, are presented later in this section. Although many of these recommendations have not been directly validated by an extensive body of well-controlled tutoring experiments with struggling learners, the extensive body of related research on self-efficacy, motivation, and learning strongly suggests that in the hands of knowledgeable, skilled tutors, these recommendations can improve struggling learners' self-efficacy, motivation, and learning. Of course, before implementing any recommendation, tutors and their supervisors must examine the likelihood of doing harm. This likelihood is virtually non-existent if these recommendations are carefully implemented and monitored, through observation of learners' responses and through formative evaluation (e.g. checklists, curriculum-based measurement). Conversely, if tutors ignore learners' weak self-efficacy and motivation, both will likely remain weak, impeding two of tutoring's goals—to

increase learners' academic success and their desire to continue learning. In essence, ignoring self-efficacy and motivation may create frustration for tutors and lost opportunities for struggling learners.

Mastery experiences

Mastery experiences refer to the degree to which struggling learners have previously succeeded on specific tasks. Generally, failure weakens self-efficacy, success strengthens it (Pintrich & Schunk, 2002). As Wigfield (2004) noted, 'When individuals do well on an activity such as reading, they develop a positive sense of self-efficacy for that activity' (p. 58). Not surprisingly, success and failure—one's direct, personal accomplishments—are hypothesized to be the strongest source of self-efficacy (Schunk, 1991; Zimmerman, 2000; Pintrich & Schunk, 2002).

Success, however, is 'raw data' (Pajares, 2002, para. 28) that does not always lead to strong self-efficacy or to increased confidence that one can succeed. To a large extent, self-efficacy depends on how struggling learners interpret success and the degree to which they take credit for it. If they attribute success on moderately challenging but not frustrating tasks to controllable, personal, internal factors—effort, persistence, modifiable abilities (e.g. attention and concentration, new skills) and the correct use of strategies—their self-efficacy will likely get stronger as they were responsible for their successes and can probably replicate them (Pintrich & Schunk, 2002; Alderman, 2004). For example, if a few months ago Ryan had correctly answered an average of five out of six questions about 3rd-grade reading materials, but now averages the same with 4th-grade materials, he might tell himself: 'I'm past 3rd-grade stuff. I'm getting pretty good at understanding 4th-grade stuff.' Recognizing one's competence and taking credit for one's successes is highly motivating: 'As the research has shown, students are motivated to engage in tasks and achieve when they believe they can accomplish the task' (Linnenbrink & Pintrich, 2003, p. 134).

In contrast, if struggling learners attribute success to uncontrollable, external factors—random luck, unusually easy work, excessive teacher help—their self-efficacy will unlikely get stronger as they were not responsible for their success and probably cannot replicate it (Pintrich & Schunk, 2002). If, instead of taking credit for understanding 4th-grade materials, Ryan thinks, 'The teacher gives me the easy 4th-grade stuff and is always helping me because she knows I'm too dumb to understand the hard 4th-grade stuff she gives the other kids', his self-efficacy will not improve.

What to do? what to say?

To promote success and to help struggling learners attribute success to controllable, personal, internal factors, tutors can do the following.

Give struggling learners instructional and independent-level work. When tutors directly instruct and monitor struggling learners, they should give them instructional-level

work (Gambrell *et al.*, Wilson, & Gantt, 1981; Miller, 2003); when learners work alone, without direct monitoring, tutors should give them independent-level work. Work that is not frustrating, not riddled with errors, decreases off-task behavior (Gambrell, *et al.*, 1981).

To determine instructional level for reading, McCormick (2003) recommends these guidelines: learners quickly and correctly read aloud 90% to 95% of words in context and comprehend 70% to 89% of the text. Independent-level materials are those of lesser difficulty; frustration-level materials are those of greater difficulty. For essentially non-reading tasks, such as adding numbers, tutors might consider Salvia and Ysseldyke's (2001) guideline: 'Depending on the student and the task, [appropriately] challenging material usually produces rates of correct student response of between 85 and 95 percent' (p. 25). Consistent with the recommendation to avoid frustrating work, Allington (2001) reported that 'tasks completed with high rates of success were linked to greater learning and improved student attitudes' (p. 44).

In general, work is at instructional level if learners feel comfortable with it, succeed with moderate effort, and make only a few errors (Gambrell, *et al.*, 1981; Allington & Cunningham, 1981). Work is at frustration level if it produces anxiety, requires laborious effort, and requires more than a few prompts or corrections within three or four minutes; tutors should avoid such work or make it easier. To make it easier, tutors should consider: (a) reducing the level of difficulty (e.g. use 4th-rather than 5th-grade reading materials); (b) reading the material to learners and discussing it before asking them to read it; (c) task analyzing the work into smaller, easier-to-learn subtasks; and (d) making the work shorter, less complex, and more concrete. By avoiding frustration-level work, tutors ensure that learners routinely have the successful experiences needed to take credit for their successes and strengthen their self-efficacy.

Teach struggling learners to credit their successes on instructional-level tasks to effort, persistence, modifiable abilities, and correct strategy use. After analyzing the literature on attribution feedback and training, Robertson (2000) concluded that both could improve struggling learners' attributions. Similarly, many researchers have found that attribution training influenced academics. Shelton *et al.* (1985) found that stressing effort attributions increased the reading persistence of students with learning disabilities. Chan (1996) found that the reading comprehension and attributions of poor readers improved when they received both reading strategy instruction and attribution training that attributed success to correct strategy use.

By teaching struggling learners that success on instructional-level tasks is a product of effort, persistence, modifiable abilities (e.g. attention), and correct strategy use, tutors can help counter learners' common lament, 'I'm dumb', while teaching them that success is repeatable (Pintrich & Schunk, 2002; Kozminsky & Kozminsky, 2003). For example, after Ryan correctly answered seven out of eight questions correctly, Mrs Asher might explicitly attribute Ryan's success on this instructional level task to controllable factors:

> Ryan, you worked hard, you stuck to it for 22 minutes, you didn't give up, you weren't distracted, you concentrated on your work, and you re-read some sentences to make sure everything made sense. That was smart. And because you did all this, you answered seven out of eight questions correctly. That's a 'B+'. That's your third 'B+' this week. You're getting better. That's great.

If struggling learners do poorly on instructional-level tasks that accurately match their abilities, tutors should stress controllable factors—inadequate effort and persistence or incorrect strategy use:

> Ryan, you will do better if you make the effort, stick to it, and use the rereading strategy we've been working on. Let's try it.

If a learner worked hard, but had difficulty, effort should not be mentioned.

Generally, tutors should not refer to abilities that struggling learners believe are permanent, immutable entities that cannot be improved (e.g. intelligence: 'You got this right because you're smart'). Learners who hold such beliefs will unlikely make sustained efforts to improve their performance as they believe inadequate ability makes improvement impossible (Muller & Dweck, 1998; Pintrich & Schunk, 2002; Alderman, 2004). Muller and Dweck (1998), for example, found that 5th-graders who had been praised for their abilities (i.e. intelligence) when they succeeded had more difficulties after setbacks than 5th-graders praised for effort. They warned that 'ability feedback can undermine children's motivation when they are later confronted with challenge' (p. 50).

Some pre-adolescents and adolescents believe that effort is tantamount to intelligence—people who achieve the same result with less effort are more intelligent than those who make considerable effort (Pintrich & Schunk, 2002). Some think effort indicates incompetence. In these cases, tutors should carefully, without exaggeration, attribute success to *modifiable* abilities linked to correct strategy use (e.g. 'You were smart to reread those paragraphs. It's an excellent strategy'). At another time, they might show how even high-achieving students often must make considerable effort to succeed. To do this, tutors might show the many drafts high-achievers produce before finishing a composition. Effort attributions, however, must be tied to instructional- or independent-level tasks, or they can backfire:

> Attribution training must ensure that the student has the ability to succeed …. If the child tried hard but is then unsuccessful, all the educator has accomplished is to reinforce low ability attribution. (Robertson, 2000, p. 131)

Frequently provide academic feedback, review and graph progress. Miller (2003) concluded that corrective feedback was critical to successful tutoring. In reviewing the motivation for reading research, Guthrie and Humenick (2004) concluded that feedback indicating progress toward students' goals could be highly motivating: it 'satisfies the fundamental need for perceiving oneself as competent in an important task' (p. 335).

By frequently and quickly providing struggling learners with qualitative academic feedback that tells them what was satisfactory, why it was, what was unsatisfactory,

and what steps they can take to improve their performance, tutors tell learners if they are on the right track and prevent them from practicing errors (Kline *et al.*, 1991; Guthrie & Humenick, 2004; Salend, 2005). They provide information needed by learners to discard erroneous concepts, reduce uncertainty, correctly apply and value strategies, and accurately self-monitor their work. Such feedback, if presented in positive, supportive, nonjudgmental ways, is critical to learning—it can improve performance, self-efficacy, and motivation (Kline, *et al.*, 1991; Miller, 2003). When emphasizing progress, such feedback can effectively strengthen self-efficacy and motivation (Bouffard-Bouchard, 1990; Alderman, 2004):

> Students will make future judgments not just on their actual skills, but also on their perception of their competence in using the skill. These perceptions of self-efficacy are more likely to increase with specific teacher feedback. (Alderman, 2004, p. 76).

Yet, teachers often fail to give struggling learners needed feedback (Good & Brophy, 2003).

Tutoring is an excellent forum for frequently providing feedback (Miller, 2003). First, tutors can quickly and easily learn how to provide feedback (Kline *et al.*, 1991). Second, tutors can easily emphasize learners' self-improvement and avoid invidious comparisons by comparing learners' current performance to their previous performance rather than to other students' (Bandura, 1997). Third, tutors have the time to devote to each struggling learner's needs and to provide visual feedback by graphing their progress and teaching them to do the same.

Like verbal feedback, graphing and self-monitoring improve learning and are easy to learn if procedures are explicit. For example, Shimabukuro *et al.* (1999) taught students with learning disabilities and attention problems how to self-monitor and self-graph their progress. Not only did students' academic productivity and on-task behavior improve, but 'the self-monitoring procedures were easy to learn and implement … and did not require … a lot of time closely monitoring the students' (p. 409). This finding supports Schunk and Zimmerman's (1997b) conclusion that 'self-evaluations of progress enhance self-efficacy and maintain motivation to improve' (p. 196).

Coordinate tutoring with in-class curriculum. In analyzing Reading Recovery, Tunmer and Chapman (2003) underscored the importance of matching tutoring and classroom curriculum. Wasik (1998) too argued for coordination between tutoring and classroom curricula, noting that the 'Success for All' tutoring program closely aligns tutoring with classroom instruction, giving tutees 'repeated opportunities to work on challenging materials' and preventing the problem of tutees having to 'reconcile two different approaches' (p. 569). Thus, to prevent confusion and provide adequate practice, out-of-class instruction (e.g. tutoring) needs to be consistent with in-class instruction: 'Programs that present LD [learning disabled] children with multiple curriculum emphases and changing curriculum demands cannot be expected to result in "cognitive clarity" and successful literacy acquisition' (Allington & Cunningham, 1996, p. 197). The same admonition applies to writing, mathematics, and most other subjects.

To achieve consistency, to prepare struggling learners for class, and to foster generalization, tutors need to learn what teachers expect of struggling learners in class and need to examine typical materials and assignments. Some tutors (e.g. teachers) are in a better position than others (e.g. community volunteers, college students) to do this. In the latter case, those who design, monitor, plan, and supervise tutoring programs should ensure that the tutoring curriculum is consistent with the learners' classes, that it supports and reinforces what is taught in classes and that its instructional strategies do not confuse struggling learners.

By relating tutoring to in-class curriculum, tutors prepare struggling learners for classwork. This is likely to increase their in-class success rate. If so, tutors can use this information to strengthen self-efficacy by discussing with learners how their in-class successes were influenced by effort, persistence, modifiable abilities, and correct strategy use. They can also graph these successes and help learners organize products of their in-class successes into annotated, age-appropriate portfolios. Like graphs, annotated portfolios are permanent records of progress that tutors can review with struggling learners when confidence or motivation flags.

Reward effort, process, and success. Extrinsic rewards given to struggling learners by tutors, teachers, or parents give struggling learners feedback that they did something well. Therefore tutors should link extrinsic rewards, or reinforcers, to effort, process, and specific accomplishments (Pintrich & Schunk, 2002):

> Ryan, your effort was excellent. You used the rereading strategy and concentrated on your work for 15 minutes. Because of this, you earned an 'A' and 5 minutes of free time.

To be meaningful, learners must value the rewards—i.e. they must value them so much that they are willing to change their behavior to earn them (Witzel & Mercer, 2003).

Highly motivated learners do not need extrinsic rewards. They are, however, needed by struggling learners whose intrinsic interest and motivation for tutoring and its subject-matter is low. Extrinsic rewards can promote academics, self-efficacy, intrinsic motivation, and feelings of competence (Pintrich & Schunk, 2002; Witzel & Mercer, 2003), which for struggling learners are primary but often unrealized goals of instruction.

To use extrinsic rewards effectively, tutors should initially provide frequent rewards to poorly motivated learners for their effort, proper strategy use, and achievement. Rewards should be paired with task-specific verbal praise. As learners accumulate numerous successes, begin to anticipate success, begin to see the value of tutoring, and begin to show interest in the materials and activities, tutors should gradually phase out extrinsic rewards. While reducing extrinsic rewards, the tutor should continue providing Ryan with task-relevant feedback and earned praise.

Vicarious experiences

Although vicarious experiences—learning from watching others—influence self-efficacy and motivation, they are less powerful than successful mastery experiences

(Schunk, 1991, 1999; Zimmerman, 2000; Pintrich & Schunk, 2002; Alderman, 2004).

Watching others succeed, especially peer models whom struggling learners view as similar, encourages learners to try the modeled task (Schunk, 1991, 1999, 2003). If tutors select tasks at the learner's instructional level, and the learner gets adequate instruction and support, success is likely. This should, in turn, strengthen self-efficacy and motivation, especially if the outcome is highly valued (Pajares, 2002; Pintrich & Schunk, 2002; Wigfield, 2004).

Although adult models can be effective, peer coping models can be more effective (Schunk, 1991, 2003; Alderman, 2004). By making mistakes, correcting them, and ultimately achieving success in acquiring and applying a new skill or strategy, coping models prompt struggling learners to realize that they too can achieve this: 'He's like me. If he can do it, I can.' This can raise self-efficiency (Pintrich & Schunk, 2002; Schunk, 2003).

What to do? what to say?

To help struggling learners acquire new skills and concepts, tutors can do the following.

Model targeted skills and concepts. Allington and Cunningham (2002) argue that modeling and demonstration are critical to quality instruction:

> What all children need, and some need more of, is models, explanations, and demonstrations of how reading is accomplished … Yet much of the work children do in school is not accompanied by … demonstration. (p. 46)

Given the need for modeling and its potential to help struggling learners improve their skill, self-efficacy, and motivation, tutors should incorporate modeling into all lessons that introduce or re-teach skills and concepts.

When modeling, tutors should (a) focus on an important skill or concept at the struggling learner's instructional level; and (b) show the learner what to do while simultaneously using direct, simple language to describe the modeled behaviors. If a skill or concept is complex, tutors should first model the entire process to a successful conclusion, then break it into manageable components and model one component at a time, while describing the behaviors. If the task involves more than three components, it may be too complex and may frustrate learners.

If tutoring occurs in small, interactive groups, and one struggling learner has some proficiency with a targeted skill, but has not fully mastered it, tutors should consider using this learner as a coping model. To be successful, the task must be at the proper instructional level for all observing learners. If the observers are not highly motivated, rewarding the model for correct behaviors (vicarious reinforcement) will likely increase the observers' willingness to correctly engage in the task (Sulzer-Azaroff & Mayer, 1991; Schunk, 1999; Schunk & Zimmerman, 1997b).

Make videos of peer models. Because tutoring usually takes place outside struggling learners' regular classes and is often a one-to-one activity, learners may lack adequate opportunity to see peers engage in modeling. To take advantage of modeling's potentially powerful influence on self-efficacy and motivation (Schunk & Zimmerman, 1997b; Alderman, 2004), tutors might make video tapes of peers (e.g. classmates) learning, modeling, and explaining targeted skills and concepts. In some respects, watching videos is better than having learners watch models in real time. Videos give tutors the opportunity to edit the model's actions and to replay and discuss selected portions. Moreover, tutors can use videos for several years, making them cost effective.

Given the modest price, small size, and ease of using modern, highly automated video recording and playback equipment, using video is no longer expensive or complicated. For example, at prespecified times cameras on tripods can record automatically; editing can be done inexpensively on computers. Nevertheless, whoever uses the equipment must get adequate training, and whoever does the recording must know what behaviors to record. Similarly, when reviewing videos with struggling learners, tutors must know what to emphasize.

Make self-modeling videos. Self-modeling refers to listening to oneself on audio tape or looking at oneself in photographs or on video successfully engaging in targeted behaviors, such as fluently reading (Hitchcock, *et al.*, 2003). Video self-modeling is particularly powerful—it positively affects self-efficacy and motivation (Schunk, 1999):

> [Research] suggest[s] that video self-modeling can be used successfully to support students' communication, behavior, and academic performance … [Its effect is] usually immediate, making it time and cost efficient. (Hitchcock, *et al.*, 2003, p. 43)

Make comparison videos. By frequently videoing tutoring sessions, tutors will have videos they can use to show struggling learners what they did correctly and incorrectly and what they can do to improve. If tasks and materials are at the learner's instructional level, most responses are apt to be correct, minimizing or eliminating the anxiety associated with discussions about how to remedy incorrect responses. Three major advantages of frequently videoing sessions are that: (a) learners get accustomed to being videoed, reducing or eliminating reactive responses; (b) learners can analyze the videos, moments after recording, while the task is fresh in mind; and (c) tutors can focus on selected activities and responses.

Moreover, tutors can use videos to demonstrate learners' progress. With videos, tutors and learners can readily compare recent to previous performances. Observable progress would likely strengthen both self-efficacy and motivation, as videos become enactive mastery experiences (Schunk, 1991, 1999; Pintrich & Schunk, 2002):

> Ryan, last month you had difficulty writing two sentences. But on this tape, you sat quietly for 15 minutes and wrote five good, logical sentences. That's progress, that's excellent progress.

Verbal persuasion

Verbal persuasion refers to remarks or verbal judgments made about another's competence or incompetence to succeed on a task (Schunk, 1991; Pajares, 2002):

> Ryan, you can do this. If you use the re-reading strategy you used so well last week, you'll succeed.

Such remarks can strengthen self-efficacy (Wigfield, 2004). Bouffard-Bouchard (1990), for example, found that false performance information influenced the self-efficacy of experimental subjects: those who received positive information developed higher self-efficacy than those who received negative information; moreover, the high self-efficacy group completed significantly more problems than the lower group and more accurately evaluated the correctness of their responses. She concluded that teachers may play an 'influential role … in providing students with cues to help them adequately evaluate their capabilities' (p. 361). This makes sense, if encouraging comments persuade students that they will succeed (Schunk, 1991; Pintrich & Schunk, 2002). Nevertheless, verbal persuasion is less powerful than mastery and vicarious experiences, such as modeling. To a large degree, its power reflects the speaker's credibility (Zimmerman, 2000).

Generally, if struggling learners respect the speaker, believe the speaker's persuasory comments and subsequently succeed, their self-efficacy and motivation will increase. Conversely, if they have little confidence in the speaker, if the speaker has little credibility, they are less likely to try (Pintrich & Schunk, 2002). And if they try but fail, their self-efficacy and motivation will likely suffer (Schunk, 1991, 2003; Pajares, 2002; Pintrich & Schunk, 2002): 'Raising expectations of competency without ensuring success undermines the credibility of the individual who is doing the persuading as well as the self-efficacy expectations of the individual receiving the message' (Reekie, 1995, para. 13). Thus, to use verbal persuasion effectively, tutors should establish credibility and should limit persuasory comments to independent- and instructional-level tasks—tasks in which learners will likely succeed.

What to do? what to say?

To persuade struggling learners, tutors can encourage them by telling them they will succeed. Although encouragement may work, it will have more power if tutors do the following.

Tie current activities to past successes. Showing and discussing with struggling learners how new activities resemble those on which they previously succeeded will likely raise self-efficacy and willingness to try. As Reekie (1995) noted in discussing learning disabilities and self-efficacy, 'Individuals are more likely to believe that they can follow an action plan and achieve the desired result if they have been successful in other, preferably similar, tasks before' (para. 10)

To help learners discover similarities, tutors can ask them to compare new to older activities. Tutors can then tell learners that having previously done well on similar activities, they will do well now. Such feedback—i.e., feedback that tells people they did and can do well—can strengthen self-efficacy (Bouffard-Bouchard, 1990; Pintrich & Schunk, 2002; Alderman, 2004).

Tie current activities to learning strategies that learners have mastered. Pintrich and Schunk (2002) concluded that 'teachers who provide students with strategy value feedback help engender the belief that they are learning a useful strategy, which can raise self-efficacy and motivate learners to continue applying it' (p. 321). Showing and discussing how a previously mastered learning strategy—i.e. one that produced success—can again be applied will likely bolster struggling learners' self-efficacy and willingness to try a task (Wigfield, *et al.*, 2004).

Tutors can complement the strategy-task connection by telling learners what skills and knowledge they have that makes success likely (Reekie, 1995; Pintrich & Schunk, 2002):

> Ryan, you know how to concentrate and you can read just about any 4th-grade word in the story. And you know a lot about geography. This means you will understand the story. You'll do well.

By specifically focusing on Ryan's relevant skills and knowledge, the speaker is stressing the essence of self-efficacy: the belief that one has the skills and knowledge, that is the ability, to succeed (Bandura, 1997; Zimmerman, 2000). Such specifics that Ryan believes or suspects are true add credibility to the tutor's conclusion that Ryan will understand the story.

Provide immediate error correction. If materials and activities that address skill development are at struggling learners' proper instructional and independent levels, learners will, by definition, make few errors (McCormick, 2003; Konold, *et al.*, 2004). When they do, tutors should usually correct errors by telling or showing or guiding learners through the correct response. Then, tutors should ask learners for the correct response. If learners make more than a few errors, tutors should consider two hypotheses. First, the learners need less demanding materials or tasks. Second, the skills and concepts need to be retaught before assigning similar materials and activities (Salend, 2005, pp. 396–7).

Correcting oral reading errors requires a somewhat different approach, especially if errors make struggling learners anxious or embarrassed. To maintain reading fluency, Konold, *et al.* (2004) recommend eliminating error-correction instruction by immediately supplying the correct words; later, missed words can be taught. If, however, the aim is to provide decoding practice, the tutor might immediately correct missed words by teaching new decoding skills or helping learners apply existing skills.

By immediately correcting errors, tutors prevent learners from practicing them. At a later time, tutors can use these error correction experiences to persuade learners that they can succeed on an upcoming activity:

> Ryan, remember yesterday you got 18 answers right and made only two errors. Then you quickly corrected the errors by rereading the confusing sentences. And then you told me it's a good idea to read the whole paragraph and then reread any confusing sentences. Well, that strategy worked yesterday and it should work on this assignment. With your rereading strategy, you should do very well on this assignment.

Develop high credibility and influence with struggling learner. Although there is no magical formula for increasing credibility and influence, several strategies might help. Most import is treating struggling learners with respect and ensuring their success. To communicate respect and increase influence, tutors should listen to struggling learners to understand their emotional, social, and intellectual needs, concerns, and goals; while listening, they should briefly paraphrase and summarize understandings and listen for feedback to see if learners believe they were accurately and fully understood (Egan, 2001). To ensure success, tutors should structure learning to produce many more successful than unsuccessful experiences. Paralleling this, tutors should credit learners' successes to effort, persistence, modifiable abilities, and the correct use of strategies.

Tutors might also increase their influence by developing a pleasant, structured atmosphere, smiling frequently, attending to learners, using learners' names, nodding affirmatively, making appropriate and reassuring facial gestures (McCabe, 2003), being enthusiastic and sincere; listing or illustrating the session's activities; and following routines.

Physiological state

Physiological state refers to physical symptoms (e.g. anxiety, sweating, rapid heart rate) that struggling learners may interpret as indicators of self-efficacy or competency (Schunk, 1991; Schunk & Zimmerman, 1997b; Pajares, 2002; Alderman, 2004). Of the four sources of self-efficacy, it is hypothesized to influence self-efficacy least (Zimmerman, 2000; Alderman, 2004). Least, however, does not mean unimportant. Reekie (1995) noted that anxiety can amplify perceptions of incompetence, erode performance, and psychologically immobilize people with learning disabilities.

What to do? what to say?

Excessive anxiety is one of the more debilitating physiological responses that tutors need to address. Although tutors are typically not psychologists or professional counselors, they can do the following to prevent or reduce excessive anxiety.

Design instruction to reduce undue anxiety. To keep anxiety at reasonable rather than extreme levels, Ormrod (2003) recommends matching performance expectations to

learners' current abilities and performance levels; teaching strategies that meet performance requirements; comparing learners' performances to their past performances rather than to peers' and teaching learners to do the same; providing feedback about specific behaviors; using routines that create a comfortable, predictable environment; communicating expectations clearly and concretely; providing learners with work on which success is likely; giving learners reasons to believe they will succeed; and reducing the negative effect of errors by giving learners opportunities to correct them.

Encourage a sense of personal control. A sense of personal control over events, whether the control is real or imagined, can lower autonomic arousal and raise performance levels (Bandura & Locke, 2003). For tutors, this suggests that they (a) increase struggling learners' sense of control by telling them they can halt difficult tasks and ask for more realistic ones; and (b) frequently tell learners' that they can succeed on instructional-level tasks because they can control their effort, persistence, and use of strategies.

Offer relaxation training. Because relaxation is antithetical and incompatible with anxiety, relaxation training directly addresses and often reduces excessive anxiety and improves learning and behavior (Margolis, 1990). Frey (1980), for example, found that relaxation training had a positive effect on the reading achievement of remedial readers. Fortunately, relaxation training is relatively straightforward, easy to learn, and easy to teach (Margolis, 1990). Numerous audio tapes and video tapes are available to help tutors and teachers.

Nevertheless, many tutors are inadequately prepared to conduct relaxation training. Unless tutors are adequately trained, skilled, supervised, and comfortable with relaxation training, they should avoid it. Instead, they might follow the organization's procedures to refer highly anxious learners to counseling to reduce anxiety (Margolis, *et al.*, 2004).

Caution, commentary, and questions

Despite the related literature supporting each of this article's recommendations, caution is needed as no recommendation will work with every struggling learner in every situation. As Linnenbrink and Printrich (2003) stressed, 'psychology and educational psychology are probabilistic sciences and not deterministic ones; the principles [derived from research] may not apply in all contexts and situations' (p. 134).

Because the effects of instructional recommendations are probabilistic, tutors should frequently assess the effectiveness of instruction on learners' academics, self-efficacy, and motivation. Tutors can do this by using curriculum-based assessment (CBA), curriculum-based measurement (CBM), diagnostic portfolios, rating scales, student questionnaires, and observational measures, such as percentage of task completion, academic engaged time, and cooperative behavior. They can also do this

by engaging learners in conversations and listening to what they say about their progress and the value of tutoring.

Assessing self-efficacy and motivation needs to be ongoing, as these often determine a struggling learner's success. Without adequate self-efficacy and motivation, learners are unlikely to fully engage in learning or sustain sufficient, prolonged effort (Carnine, *et al.*, 1997; Zimmerman, 2000; Pintrich & Schunk, 2002; Ormrod, 2003; Walker, 2003; Wigfield, 2004), and they may drop out of tutoring (Hock, *et al.*, 2001). Yet, the literature on tutoring learners one-to-one or in small groups has not systematically examined how to strengthen self-efficacy. Consequently, the tutoring research should investigate the short- and long-term effects of efforts to strengthen struggling learners' self-efficacy and the best ways to educate tutors with different levels of expertise (e.g. aides, teachers, college students) about self-efficacy. Despite this needed research, the related research on self-efficacy, motivation, and learning makes a strong case for tutors to work to strengthen struggling learners' weak self-efficacy now. Struggling learners cannot wait for the tutoring research to catch up with their needs; they have no time to lose.

When planning instruction to strengthen the self-efficacy, motivation, and academics of struggling learners, tutors and their supervisors should keep in mind several questions that experimental research, with control groups, has not fully resolved, but will likely influence the effectiveness of tutoring:

1. What criteria should be used to determine the struggling learner's proper instructional and independent level on different kinds of tasks (e.g. oral reading, mathematics computation)? Although well-recognized guidelines exist, many questions need answers (see Burns, 2004).
2. What are the advantages and disadvantages of tutoring struggling learners of different ages in school, at home, after-school, on weekends?
3. What criteria should tutors use to assign struggling learners to small tutoring groups? What instructional practices are effective in small groups? How might peer-mediated instruction effectively complement tutors' efforts?
4. How can tutors best use scaffolding and strategy instruction to strengthen self-efficacy, motivation, and learning?
5. How can tutors help struggling learners (a) generalize self-efficacy, motivation, and academic gains to different situations, and (b) maintain gains over time?
6. How can parents of school-age struggling learners assist with academics, help improve their children's self-efficacy and motivation, and help them maintain gains?

Conclusion

Although tutors may be unable to use each suggestion made herein, they can still do a great deal to strengthen struggling learner's self-efficacy. To do this, they need (a) to understand self-efficacy's pivotal role in learning and its sources, and (b) to adapt instruction to strengthen learners' weak or flagging self-efficacy. By adapting

instruction to strengthen weak self-efficacy, tutors can make instruction more effective and help learners achieve more. But more than that, tutors can help transform maladaptive 'I can't do it' beliefs into adaptive 'I can do it' ones that can serve learners for a lifetime:

> Self-efficacy beliefs … affect whether individuals think in self-enhancing or self-debilitating ways, how well they motivate themselves and persevere in the face of difficulties, the quality of their emotional well-being and their vulnerability to stress and depression. (Bandura & Locke, 2003, p. 87)

References

Alderman, M. K. (2004) *Motivation for achievement: possibilities for teaching and learning* (2nd edn) (Mahwah, NJ, Lawrence Erlbaum).

Allington, R. L. (2001) *What really matters for struggling readers: designing research-based programs* (New York, Longman).

Allington, R. L. & Cunningham, P. M. (1996) *Schools that work: where all children read and write* (New York, HarperCollins).

Allington, R. L. & Cunningham, P. M. (2002) *Schools that work: where all children read and write* (2nd edn) (Boston, MA, Allyn & Bacon).

Bandura, A. (1997) *Self-efficacy: the exercise of control* (New York, Freeman).

Bandura, A. & Locke, E. A. (2003) Negative self-efficacy and goal effects revisited, *Journal of Applied Psychology,* 88, 87–99.

Bouffard-Bouchard, T. (1990) Influence of self-efficacy on performance in a cognitive task, *Journal of Social Psychology,* 130, 353–363.

Burns, M. K. (2004) Empirical analysis of drill ratio research: refining the instructional level for drill tasks, *Remedial and Special Education,* 25, 167–173.

Carnine, D., Silbert, J. & Kameenui, E. J. (1997) *Direct instruction reading* (3rd edn) (Columbus, OH, Merrill).

Chan, L. K. S. (1996) Combined strategy and attributional training for seventh grade average and poor readers, *Journal of Research in Reading,* 19, 111–127.

Egan G. (2001) *The skilled helper* (7th edn) (Belmont, CA, Wadsworth).

Elbaum, B. & Vaughn, S. (2000) How effective are one-to-one tutoring programs in reading for elementary student at risk for reading failure? A meta-analysis of the intervention research, *Journal of Educational Psychology,* 92, 605–619.

Frey, H. (1980) Improving the performance of poor readers through autogenic relaxation training, *Reading Teacher,* 33, 928–932.

Gaffney, J. S., Methven, J. M. & Bagdasarian, S. (2002) Assisting older students to read expository text in a tutorial setting: a case for a high-impact intervention, *Reading and Writing Quarterly: Overcoming Learning Difficulties,* 18, 119–150.

Gambrell, L. B., Wilson, R. M. & Gantt, W. N. (1981) Classroom observation of task attending behaviors of good and poor readers, *Journal of Educational Research,* 74, 400–404.

Good, T. L. & Brophy, J. E. (2003) *Looking in classrooms* (9th edn) (Boston, MA, Allyn & Bacon).

Gordon, E. E., Morgan, R. R., Ponticell, J. A. & O'Malley, C. J. (2004) Tutoring solutions for 'no child left behind': research, practice, and policy implications, *NASSP Bulletin,* 88, 59–68.

Guthrie, J. T. & Davis, M. H. (2003) Motivating struggling readers in middle school through an engagement model of classroom practice, *Reading and Writing Quarterly: Overcoming Learning Difficulties,* 19, 59–85.

Guthrie, J. T. & Humenick, N. M. (2004) Motivating students to read: evidence for classroom practices that increase reading motivation and achievement, in: P. McCardle & V. Chhabra (Eds) *The voice of evidence in reading research* (Baltimore, MD, Paul H. Brookes), 329–354.

Harris, A. J. & Sipay, E. R. (1990) *How to increase reading ability* (9th edn) (New York, Longman).
Hitchcock, C. H., Dowrick, P. W. & Prater, M. A. (2003) Video self-modeling intervention in school-based settings, *Remedial and Special Education,* 24, 36–45, 56.
Hock, M. F., Pulvers, K. A., Deshler, D. D. & Schumaker, J. B. (2001) The effects of an after-school tutoring program on the academic performance of at-risk students and students with LD, *Remedial and Special Education,* 22, 172–186.
Kline, F. M., Schumaker, J. B. & Deshler, D. D. (1991) Development and validation of feedback routines for instructing students with learning disabilities, *Learning Disability Quarterly,* 14, 191–207.
Konold, K. E., Miller, S. P. & Konold, K. B. (2004) Using teacher feedback to enhance student learning, *Teaching Exceptional Children,* 36, 64–69.
Kozminsky, E. & Kozminsky, L. (2003) Improving motivation through dialogue, *Educational Leadership,* 61, 50–54.
Linnenbrink, E. A. & Pintrich, P. R. (2002) Motivation as an enabler for academic success, *School Psychology Review,* 31, 313–327.
Linnenbrink, E. A. & Pintrich, P. R. (2003) The role of self-efficacy beliefs in student engagement and learning in the classroom, *Reading and Writing Quarterly: Overcoming Learning Difficulties,* 19, 119–137.
Margolis, H. (1990) Relaxation training: a promising approach for helping exceptional learners, *International Journal of Disability, Development and Education,* 37, 1–19.
Margolis, H., McCabe, P. P. & Alber, S. (2004) Resolving struggling readers' homework difficulties: how counselors can help, *Journal of Educational and Psychological Consultation,* 15, 79–110.
McCabe, P. P. (2003) Enhancing self-efficacy for high-stakes reading tests, *Reading Teacher,* 57, 12–20.
McCormick, S. (2003) *Instructing students who have literacy problems* (4th edn) (Upper Saddle River, NJ, Merrill Prentice Hall).
Miller, S. D. (2003) Partners-in-reading: using classroom assistants to provide tutorial assistance to struggling first-grade readers, *Journal of Education for Students Placed at Risk,* 8, 333–349.
Muller, C. M. & Dweck, C. S. (1998) Praise for intelligence can undermine children's motivation and performance, *Journal of Personality and Social Psychology,* 75, 33–52.
Multon, K. D., Brown, S. D. & Lent, R. W. (1991) Relation of self-efficacy beliefs to academic outcomes: a meta-analytic investigation, *Journal of Counseling Psychology,* 38, 30–38.
Ormrod, J. E. (2003) *Educational psychology: developing learners* (4th edn) (Upper Saddle River, NJ, Prentice Hall).
Pajares, F. (2002) *Overview of social cognitive theory and of self-efficacy.* Available online at: http://www.emory.edu/education/mfp/eff.html (accessed 27 July 2004).
Pintrich, P. R. & Schunk, D. H. (2002) *Motivation in education: theory, research and applications* (2nd edn) (Englewood Cliffs, NJ, Prentice Hall Merrill).
Reekie, F. A. (1995) Strategic action plans with clients who have learning disabilities, *Journal of Employment Counseling,* 32, 164–180. Available online at: http://web7.epnet.com/citation.asp? (accessed 4 December 2004).
Robertson, J. S. (2000) Is attribution training a worthwhile classroom Intervention for K-12 students with learning difficulties? *Educational Psychology Review,* 12, 111–134.
Salend, S. J. (2005) *Creating inclusive classrooms: effective and reflective practices for all students* (5th edn) (Upper Saddle River, NJ, Pearson Merrill Prentice Hall).
Salvia, J. & Ysseldyke, J. E. (2001) *Assessment* (8th edn) (Boston, MA, Houghton Mifflin).
Schunk, D. H. (1991) Self-efficacy and academic motivation, *Educational Psychologist,* 26, 207–231.
Schunk, D. H. (1999) Social-self interaction and achievement behavior, *Educational Psychologist,* 34, 219–227.
Schunk, D. H. (2003) Self-efficacy for reading and writing: influence of modeling, goal setting, and self-evaluation, *Reading and Writing Quarterly: Overcoming Learning Difficulties,* 19, 159–172.

Schunk, D. H. & Zimmerman, B. J. (1997a) Developing self-efficacious readers and writers: the role of social and self-regulatory processes, in: J. T. Guthrie & A. Wigfield (Eds) *Reading engagement: motivating readers through integrated instruction* (Newark, DE, International Reading Association), 34–50.

Schunk, D. H. & Zimmerman, B. J. (1997b) Social origins of self-regulatory competence, *Educational Psychologist,* 32, 195–208.

Shell, D. F., Murphy, C. C. & Bruning, R. H. (1989) Self-efficacy and outcome expectancy mechanisms in reading and writing achievement, *Journal of Educational Psychology,* 81, 91–100.

Shelton, T. L., Anastopoulos, A. D. & Linden, J. D. (1985) An attribution training program with learning disabled children, *Journal of Learning Disabilities,* 18, 261–265.

Shimabukuro, S. M., Prater, M. A., Jenkins, A. & Edelen-Smth, P. (1999) The effects of self-monitoring of academic performance on students with learning disabilities and ADD/ADHD, *Education and Treatment of Children,* 22, 397–414.

Sulzer-Azaroff, B. & Mayer, G. R. (1991) *Behavior analysis for lasting change* (Fort Worth, TX, Holt, Rinehart & Winston).

Tuckman, B. W. (1999) A tripartite model of motivation for achievement: attitude, drive, strategy, paper presented at the *Annual Meeting of the American Psychological Association*, Boston, MA, August.

Tunmer, W. E. & Chapman, J. W. (2003) The Reading Recovery approach to preventive early intervention: as good as it gets? *Reading Psychology,* 24, 337–360.

US Department of Education (2003) *No child left behind: a parent's guide* (Washington, DC, US DOE).

Vaughn, S., Linan-Thompson, S., Kouzekanani, K., Bryant, D. P., Dickson, S. & Blozis, S. A. (2003) Reading instruction grouping for students with reading difficulties, *Remedial and Special Education,* 24, 301–315.

Walker, B. J. (2003) The cultivation of student self-efficacy in reading and writing, *Reading and Writing Quarterly: Overcoming Learning Difficulties,* 19, 173–187.

Wasik, B. A. (1998) Using volunteers as reading tutors: guidelines for successful practices, *Reading Teacher,* 51, 562–569.

Wasik, B. A. & Slavin, R. E. (1993) Preventing early reading failure with one-to-one tutoring: a review of five programs, *Reading Research Quarterly,* 28, 178–200.

Wigfield, A. (2004) Motivation for reading during the early adolescent and adolescent years, in: D. S. Strickland & D. E. Alvermann (Eds) *Bridging the literacy achievement gap, grades 4–12* (New York, Teachers College Press), 56–69.

Wigfield, A., Guthrie, J. T., Tonks, S. & Perencevich, K. C. (2004) Children's motivation for reading: domain specificity and instructional influences, *Journal of Educational Research,* 97, 299–309.

Witzel, B. S. & Mercer, C. D. (2003) Using rewards to teach students with disabilities: implications for motivation, *Remedial and Special Education,* 24, 88–96.

Zimmerman, B. J. (2000) Self-efficacy: an essential motive to learn, *Contemporary Educational Psychology,* 25, 82–91.