ENCOURAGING SELF-EFFICACY

From the beginning, it was evident that the fifth grade students at Valley Elementary School in Yucaipa, California, were enjoying their discussion of Harry Stottlemeier's Discovery. In addition, students were obviously developing better habits and skills of critical thinking which influenced their academic studies throughout each day. Teachers had expected students to enjoy and benefit from the Philosophy for Children materials. However, teachers were surprised by the dramatic increases in students' feelings of self-efficacy.

Self-efficacy, as defined by Albert Bandura in his theory of social learning, is the belief that one can successfully execute the behavior that is required to produce a desired outcome. Self-efficacy represents a person's conviction in his/her effectiveness. Self-efficacy determines whether someone is fearful or confident, inhibited or uninhibited. Efficacy expectations determine how much effort will be expended and how long a person will persevere in the face of adversity.

To maintain and improve the impressive increases in self-efficacy, teachers developed a simple technique that could be used with each exercise that is suggested in the teacher's manual. The technique emphasizes the sources of information upon which expectations of self-efficacy are based: verbal persuasion, emotional arousal, vicarious experience, and performance accomplishments.

Through persuasive verbal suggestion, students are led to believe that they can successfully cope with tasks that may have frustrated them in the past. Verbal persuasion puts students at ease by raising their level of confidence. Verbal persuasion offers hope. For example, the teacher may say, "In previous lessons, you did a good job of explaining how things are alike and different. Today, we are going to build on your skill by discussing analogies, which require that you note similarities among ideas. In fact, you used an analogy, although we didn't use that specific word, when you said that a chicken is like a cow in the same way that a dog is like a cat. The first two animals are typically kept outside, whereas the second two are usually kept indoors."

Verbal persuasion is easy to use. However, one caution must be noted. The praise must be justified. Students will not be convinced that they can succeed if they have a long history of failing to cope with similar tasks.

The second step in the technique is to create emotional arousal. A certain degree of anxiety is necessary to motivate students. One method of motivating students is to introduce cognitive dissonance. Cognitive dissonance results from presenting a problem or disparity that students wish to resolve. Students are motivated by the need to resolve the difficulty that causes anxiety. For example, the teacher may say, "At the end of today's session, we will see if you can explain how the oars of a boat are similar to a part of an airplane."

Emotional arousal is needed to motivate and involve students. Teachers must be careful, however, so they do not instill so much anxiety that student's expectations for success are overcome. High anxiety debilitates performance by directing attention toward an overriding fear of failure, instead of toward the resolution of the problem.

Providing opportunities for vicarious experiences is the third part of the teaching technique. Seeing others complete activities without adverse consequences creates expectations in students that they too will eventually succeed if they intensify or persist in their efforts. Fortunately, the group discussions that are an essential part of the Philosophy for Children program provide numerous opportunities for students to have vicarious experiences. Students identify with other members of their group, and are encouraged when they see someone like them succeed in offering a keen insight, colorful explanation, or convincing argument. Students are also encouraged when they see that others do not fear punishment when they offer divergent responses or speculative

arguments. The nature of the Philosophy for Children materials helps teachers establish a supportive environment which encourages students to take risks without fearing the consequences.

The final, and most important, part of the teaching technique is to provide numerous opportunities for direct, personal experiences. The most influential and dependable source of efficacy expectations are accomplishments, because they are based on a student's personal experiences. Successes raise expectations; failures lower expectations.

Teachers in Yucaipa made special efforts to ensure successful direct experiences by carefully following sound teaching practices. First, teachers eliminated exercises or examples that required background information that the students did not have. As with any commercial program, the authors cannot know the knowledge and ability of each student who might use the materials. Second, examples which teachers thought would be easy for students to understand were placed at the beginning of each exercise to ensure that students would always start on a note of success. Third, teachers were particularly careful to emphasize that the process, not the actual answers, was the most important goal of the program. Students were told that the practice of clear thinking and expression were important, that critical thinking is a developmental process that cannot be mastered, and that they could benefit from the different insights and perspectives that spring from minds that are free of the shackles of finding the one right answer and of agreeing with the teacher. Fourth, teachers encouraged transfer of learning between the Philosophy for Children program and regular classroom lessons, thereby increasing the number of opportunities for successful performance. Fifth, teachers subscribed to the idea that teachers can be students, and that students can be teachers. Teachers made extra efforts to be attentive, responsive, and to note when they had learned from students. In addition, teachers allowed the students to present exercises by themselves. In the belief that teaching provides unique opportunities for learning, students took turns presenting exercises from the manual that had been screened by the teachers. Students previewed the material at least three days in advance, were allowed to make any changes they wished in the examples or approach, and were ultimately responsible for providing constructive feedback to the responses of their peers. Allowing students to be the teacher was extremely successful in increasing empathy for teachers and students, and in increasing self-efficacy. Teachers and students believed that this approach was the highlight of the program.

Self-efficacy soared during the program. After strong efficacy expectations were developed through repeated successes, the negative impact of occasional failures was reduced. In addition, occasional failures that were later overcome by determined efforts strengthened self-efficacy by convincing students that they could overcome difficult obstacles through sustained effort. Finally, efficacy expectations carried over to thinking tasks throughout the curriculum. Students approached all thinking tasks with greater confidence.

Harry Stottlemeier's Discovery, combined with a technique that is congruent with social learning theory, was extremely successful in developing clear thinking and self-efficacy.

Gary A. Negin