What Do Teachers Need to Know about Self-Efficacy?
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http://www.emory.edu/EDUCATION/mfp/effpage.html
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Prior question: *What is useful knowledge for teachers?* Two answers:

In their chapter on “A future for teacher education: Developing a strong sense of professionalism,” in the *Handbook of research on teacher education (2nd ed.)*, Barone and his colleagues (1996) suggested that one important source of the strong professional’s understanding is “the scientific knowledge generated in sociology, educational psychology, anthropology, economics, and research on teaching, to name a few...” (p. 1125). They go on to describe *theories to think with*, such as the American Psychological Association synthesis of contemporary theories of learning and motivation (APA, 1995); *concepts to classify with*, such as academic learning time, zone of proximal development, or authentic assessment; *pedagogical technologies*, such as reciprocal teaching, anchored instruction, or reading recovery; and *findings to check out*, such as wait time effects, the value of advance organizers, or the impact of kindergarten retention. These theories, concepts, technologies, and findings are frames for reflection that allow students to make sense of their formal and informal education in education—to weave a rich and strong tapestry of understanding from course work and experience. Self-efficacy theory is an important thread in that tapestry.

Berliner’s notion of five stages of learning to teach (i.e., novice, advanced beginner, competent, proficient, and expert) also provides some guidance about what is useful knowledge. Students in educational psychology classes are moving toward becoming novices, which Berliner defines as student teachers and many first year teachers. Novices need to learn the objective facts and features of the situation. Commonplaces of an environment need to be discriminated, the parts of required tasks must be labeled and practiced, and some *rules for action* should be learned. Berliner refers to these first rules as context-free, but it might be better to consider them enabling rules (Adler & Borys, 1996) that provide an initial basis for action. For example, in driving, novices must learn the kinds of rules tested by most states in written examinations—the meaning of a blinking yellow light, or what to do when a school bus
stops. Novice teachers need to know what a higher-order question is, that it is not defined by form (multiple choice vs. essay question) but by the kind of thinking required. And they should learn some rules, such as wait at least three seconds after asking a higher-order question. Perhaps with experience, novices can learn to contextualize rules, but the rules provide a beginning, a basis for gaining expertise and efficacy with experience (Barone, Berliner, Blanchard, Casanova & McGowan, 1996).

What are the enabling rules that grow from self-efficacy theory? I start with a fundamental assertion: Beliefs matter, self-efficacy is a powerful belief, and teachers can make a difference for their students and themselves through self-efficacy. To teach and learn about these propositions I suggest four key questions and ideas to guide our discussion:

1. What is self-efficacy? How it is different from self-concept and self esteem.

As a component of powerful professional knowledge, self-efficacy is a concept to categorize with and is part of a larger theory to think with. Self-efficacy is “a context-specific assessment of competence to perform a specific task” (Pajares, 1997, p. 15). Self-efficacy beliefs are about the future, about what I will be able to do in a particular situation, not what I already accomplished, or why I accomplished it in the past.

Because there has been so much talk, especially in the popular press, about improving students’ self-concepts and self-esteem, teachers need to know that self-efficacy is not the same as self-concept or self esteem. Self-concept is a more global construct that contains many perceptions about the self, including self-efficacy. Self-concept is developed in part from comparisons of self to other people, using other people’s abilities of accomplishments as frames of reference. But self-efficacy focuses on your ability to successfully accomplish a particular task with no need for comparisons—the question is whether you can do it, not whether others would be successful.

Compared to self-esteem, self-efficacy is concerned with judgments of personal capabilities; self-esteem is concerned with judgments of self-worth. There is no direct relationship between self-esteem and self-efficacy. It is possible to feel highly efficacious in one area and still not have a high level of self-esteem, or vice versa. For example, I
have very low self-efficacy for singing, but my self-esteem is not affected, probably because my life does not require singing. But if my self-efficacy for teaching a particular class started dropping after several bad experiences, I know my self-esteem would suffer.

Definitions stress that self-efficacy is task specific. This is a powerful notion because, if taken to heart, it is motivating and liberating to believe that difficulty learning or performing in one area does not mean you will have trouble in another. I remember years ago how much it meant to a friend’s daughter when a teacher told her that she was likely to do well in geometry, even though she had trouble with algebra. It was as if a burden lifted. Another example, I asked a gifted teacher about the lessons of self-efficacy theory for teachers and she emphasized the need for teachers to understand the sources through which efficacy is built. This knowledge, she believed, would help to destroy the idea that we are either "good" or "bad" teachers and that nothing can be done to help us to feel better about our performance in the classroom (Harper, April 4, 2004, personal communication).

The teacher also stressed the importance of collective efficacy. She wanted to know more how to improve the overall climate in schools by cultivating the belief that the teachers in the school can make a difference in kids’ lives. She said that this is particularly important for new teachers, who are highly susceptible to depressing faculty lounge conversations—which leads to my next point.

As the three examples above indicate, there are three kinds of efficacy judgments at work in schools: student, teacher, and collective. Students’ sense of efficacy affects their motivation and learning. Teachers’ motivation and learning are affected both by their own sense of efficacy and collective efficacy of the teachers in the school—Being aware of these possible influences is the first step in self-regulation of self-efficacy at the student, teacher, and collective levels.

2. Why does self-efficacy matter for learning—even more than self-concept or self-esteem?

Self-efficacy beliefs are strong predictors of behavior. Self-efficacy influences motivation through the choices we make and the goals we set. Highly efficacious students tend to select more challenging tasks. Greater efficacy also leads to greater effort and
Self-efficacy in the face of setbacks. When sense of efficacy for a goal is high, students put forth more effort to successfully accomplish tasks, and persist longer when tackling difficult tasks (Bandura, 1997; Schunk, 1990). Students with low levels of efficacy may choose only easy tasks or avoid a task altogether, apply minimal effort, and give up easily. Even when students have the same level of academic skills, those with higher self-efficacy for the task perform better on schoolwork (Zimmerman, 1995). So when sense of efficacy in a given area is high, we will set higher goals, are less afraid of failure, and find new strategies when old ones fail. If our sense of efficacy is low, however, we may avoid a task altogether or give up easily when problems arise.

For example, if students believe they lack the ability to deal with higher mathematics, they will probably act on this belief even if their actual abilities are well above average. These students are likely to have little motivation to tackle trigonometry or calculus, because they expect to do poorly in these areas. But if they believe that they can learn with reasonable effort, these same students will exert greater effort, persist when problems arise, rebound after setbacks, focus attention, feel more relaxed and optimistic, and use more powerful strategies. In other words, Self-efficacy mobilizes cognitive and motivational tools.

3. Where does self-efficacy come from, and is it malleable?

I find the sources of efficacy are a good heuristic for thinking through how to affect efficacy. For example, when we discussed in a class how to make student teaching experience more likely to build a resilient sense of efficacy for teaching, we turned to the sources of efficacy to generate ideas—this proved useful.

Mastery is the most important source of efficacy (most of the time). A sense of efficacy to learn is built on authentic accomplishments learning in the past, especially when students attribute the accomplishments to their own efforts and abilities. There are so many connections to mastery in educational psychology theories, concepts, findings, and technologies. Mastery learning comes to mind, shaping in applied behavior analysis, portfolios that give students and teachers visual evidence of growing mastery, Corno’s work on effective feedback, the research on frequent testing, and even the new work in positive psychology.
A final related point about mastery. Feeling capable is not the same as feeling good or comfortable. Authentic efficacy may follow struggling with a task, but finally coping. To deny students the struggle may be to deny them an authentic mastery experience.

In vicarious experiences, someone else models accomplishments. The more closely the student identifies with the model, the greater the impact on self-efficacy. When the model performs well, the student’s efficacy is enhanced, but when the model performs poorly, efficacy expectations decrease. Although mastery experiences generally are acknowledged as the most influential source of efficacy beliefs in adults, Keyser and Barling (1981) found that children (6th graders in this study) rely more on modeling as a source of self-efficacy information.

Social persuasion may be a “pep talk” or specific performance feedback. Social persuasion alone can’t create enduring increases in self-efficacy, but a persuasive boost in self-efficacy can lead a student to make an effort, attempt new strategies, or try hard enough to succeed. Social persuasion can counter occasional setbacks that might have instilled self-doubt and interrupted persistence. The potency of persuasion depends on the credibility, trustworthiness, and expertise of the persuader (Bandura, 1997).

Level of arousal affects self-efficacy, depending on how the arousal is interpreted. As you face the task, are you anxious and worried (lowers efficacy) or excited and “psyched” (raises efficacy) (Bandura, 1997; Pintrich & Schunk, 2002).

4. How can teachers influence self-efficacy of all three types?

Students: Develop self-reflection and metacognition—help students become more self-aware—teach kids to self-regulate their self-efficacy. Give both challenge and support. Think authentic mastery and developing (incremental) abilities. Avoid social comparisons and meaningless praise, give feedback that helps students improve, not “self-esteem” building general accolades (see Pajares & Bengston, 1995).

Teachers: Learn to regulate your own self-efficacy by becoming self-aware about the sources, including collective.
Collective: Find a supportive environment; create a collective that makes you feel capable (Sternberg contextual intelligence). Avoid collectives that focus on student failure.

Next I turn to the three questions Tim raised for our panel, and get more specific about what can be done to influence efficacy.

I. What are the Motivational Principles Teachers Ought to Implement in Their Classrooms?

To Influence Student Self-Efficacy

The basic task here is to first support and then recognize mastery experiences. Teachers need strategies, useful attributions, and tools to support the development of efficacy. Students need real evidence that effort will pay off, that setting a higher goal will not lead to failure, that they can improve, and that abilities can be changed. They need authentic mastery experiences. Some ideas for teaching are:

Emphasize students’ progress in a particular area.

Examples
1. Return to earlier material in reviews and show how “easy” it is now.
2. Encourage students to improve projects when they have learned more.
3. Keep examples of particularly good work in portfolios, contrast with earlier work.

Make specific suggestions for improvement, and revise grades when improvements are made.

Examples
1. Return work with comments noting what the students did right, what they did wrong, and why they might have made the mistakes. Give information to improve.
2. Experiment with peer editing.
3. Show students how their revised, higher grade reflects greater competence and raises their class average.

Stress connections between past efforts and past accomplishments.

Examples
1. Have individual goal-setting and goal-review conferences with students, in which you ask students to reflect on how they solved difficult problems.

2. Confront self-defeating, failure-avoiding strategies directly.

**Be realistic about problems but build on strengths.**

**Examples**

1. Recognize progress and improvement.

2. Share examples of how you have developed your abilities in a given area and provide other models of achievement who are similar to your students—no supermen or superwomen whose accomplishments seem unattainable.

3. Don’t excuse failure because a student has problems outside school. Help the student succeed inside school.

**Don’t overlook the power of verbal persuasion from a trusted teacher or coach.**

Students may just need to persist long enough to see some authentic improvement.

**To Influence Sense of Efficacy for Teaching**

Teachers need to be mindful to nourish their sources of efficacy, to self-regulate their efficacy. They need to know that they will have to nurture and protect their sense of competence by seeking models and mentors, asking for the teaching tools they need, and keeping a journal noting successes. Focus on strengths—of the teacher and of the students. Find a collective that believes in students’ capabilities and learn from them. In the Appendix is a list of questions developed last week by Anne McDonald, a doctoral student and teacher educator in Australia. These questions grow out of her study of teachers’ sense of efficacy as it develops during school strategic planning and are meant to guide teacher and administrator reflection.

**II. What Gets in the Way Practically?**

Testing communicates to students and to teachers about their efficacy—the tests for each student are the same even though students’ abilities and skills vary. Content standards specify what students must learn. Teachers feel a loss of control/autonomy as more and more of the decisions about curriculum seem to be taken from them.
The supervision system for many teachers is based on infrequent evaluation, not ongoing learning.

III. What Beliefs and Intuitive Knowledge Get in the Way?
Self-efficacy is confidence, which is a characteristic of personality; therefore it is difficult to change.

Make tasks easy so students can “experience success.”

Equality is equity—different task for different students is not only impractical, it is unfair.

A Final Word
It is never too late to become more self-regulating—corporate trainers who teach time management and goal-setting skills help adults to better organize their lives and thus become more self-regulating. But the longer students go in school without the skill and will to be self-regulated, the more discouraged they can become. The spiral up from self-regulation to higher self-efficacy to greater self-regulation can become a spiral down to learned helplessness, especially for students who face physical, emotional, or intellectual challenges. The principles are the same at any age, but the applications vary. Goal setting and monitoring progress is especially powerful, as many people know who struggle to change their own unhealthy habits. Moving in small steps, then adding requirements as skills and confidence increase, can be useful. Helping students of any age to evaluate their own work and see the good as well as the “needs improvement” can give the students a sense of power to change. Often portfolios are helpful in recording and reflecting on growth and setting goals for the future. Something as simple as teaching middle school students how to use a daily planner to organize assignments can be a start. Or students might develop power point presentations for each other on how to tackle larger assignments to make them manageable and how to seek appropriate help when needed.
References


Self-efficacy website: http://www.emory.edu/EDUCATION/mfp/effpage.html

Appendix

Anne McDonald, a doctoral student and teacher educator in Australia, created this list of questions to guide administrator and teacher reflection during a recent visit to the Ohio State University. Anne can be reached at amcdonald@ced.sale.catholic.edu.au

What are the practical implications of efficacy for schools and educators?

School leaders have the ability to promote structures and processes in the daily life of that school that are capable of both developing and nurturing teacher efficacy as well as the collective efficacy of the school's teaching staff.

School leaders and leadership teams might ask:

1. Are we really aware of the link between teacher efficacy and student learning?
2. Are we aware of the link between teacher learning and teacher efficacy? What structures/programs/processes are in our school to support teacher learning?
3. What opportunities are there for teachers to feed back relevant and meaningful material from their learning experiences outside the school to other staff members and/or to the teaching staff as a whole?
4. What opportunities do teachers have to experiment with their new knowledge so as to enhance classroom teaching and learning?
5. How does your school support and encourage implementation and evaluation of new knowledge in the classroom?
6. What feedback are teachers given about their competence in the classroom and within the school teaching staff?
7. Do teachers in your school engage in informal professional conversations about their own learning, their teaching success and failures, their own sense of their ability to encourage students to learn and shine?
8. When teachers gather for meetings, are they opportunities to learn, or are they sessions for administration?

When schools provide opportunities for teachers to learn, reflect, and share, teacher efficacy is enhanced.

Teachers might ask themselves:

1. Am I aware of the link between teacher efficacy and student learning?
2. What steps do I take to share my learning with other teachers?
3. What steps do I take to put new skills and learning into action in my classroom?
4. What feedback am I given about my own competence?
5. Are you encouraged or given the opportunity to plan and work in teams?
6. Are you encouraged to experiment with your learning in the classroom and to share this with other teachers?
7. What do I talk about with other teachers? Is it about my own learning or about what I am doing in the classroom?
8. Do I feel that I contribute to the learning in this school?