Best Practices Guidebook

Supporting Students' Self-Efficacy

Bluegrass Center for Teacher Quality

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EXECUTIVE SUMMARY

Albert Bandura's theory of self-efficacy is a commonly known social-emotional learning theory that states that learners can only achieve that which they believe they can achieve. Strong self-efficacy, associated with confidence and a willingness to take risks in learning, has been positively correlated with strong student achievement. While some element of self-efficacy is determined by the learner's psychological underpinning, self-efficacy can be developed over time through a combination of mastery experiences, vicarious experiences, and positive social persuasions. This report identifies and examines six best practices for developing student self-efficacy in the classroom.

INTRODUCTION

In the 1980's, the Canadian psychologist Albert Bandura introduced the world to his theory of self-efficacy. Bandura's theory loosely states that one can only be as successful as one believes they can be. In other words, self-efficacy is our personal judgement on our ability to thrive under certain conditions. Self-efficacy is a key indicator of academic success and influences our behaviors, our choices, and our motivations (Bandura, 1986).

While self-efficacy is shaped partially by our individual psychological underpinning, a student's self-efficacy can be influenced by three key factors. The first factor is mastery experiences. These experiences occur when learners have an opportunity to perform a task or apply knowledge in a new way. When the learner completes the task successfully, they are said to have a positive mastery experience and their self-efficacy grows. Similarly, if the learner is unsuccessful in completing the task, they have a negative mastery experience and their self-efficacy for the task is diminished. These types of thoughtful mastery experiences have been shown to improve overall student achievement and influence student's vocational interests and career aspirations (Luzzo & Hasper, 1999).

The next way that self-efficacy is developed in students is through vicarious experiences. Similar to a mastery experience, a vicarious experience occurs when a learner witnesses a peer perform a task. If the peer performs the task successfully, self-efficacy grows in the observer, and if the task is unsuccessful, self-efficacy is diminished. The impact of vicarious experiences have been heavily studied in students of all ages. The importance of vicarious experiences have been observed in elementary aged students whose self-efficacy for English and mathematics changed over time when exposed to vicarious experiences (Phan, 2012) and a study of college aged students demonstrated that when preservice teachers observe the use of instructional technology they in turn have higher self-efficacy for the use of the technology (Krause, 2017).

Finally, self-efficacy is heavily influenced by the social persuasions presented to the learner. Social persuasions occur when someone who the learner holds in high regard comments, either positively or negatively, on the learner's ability to perform a task or apply knowledge. When children are placed in a positive learning environment, and encouraged to work together and support one another, the interactions between them dramatically shape their self-efficacy and impact their achievement (Özdemir & Pape, 2013).

By carefully leveraging these three elements of self-efficacy, classroom teachers can help students build positive self-efficacy for a variety of subjects. This report will present six best practices for supporting the development of student-self efficacy.

SIX PRACTICES FOR SUPPORTING STUDENT SELF-EFFICACY

TASK ENGAGEMENT	SOCIAL-COMMUNICATIVE ENGAGEMENT
SELF-REGULATED LEARNING	MULTI-SENSORY LEARNING ACTIVITIES
SUPPORTIVE FEEDBACK	STUDENT CENTERED LEARNING

PRACTICE ONE

TASK ENGAGEMENT

Students' physical presence in the classroom does not necessarily guarantee access to learning. Students need to be active participants in order to access the learning environment and activate their thought processes. Thus, task engagement is critical to learning. Although most teachers find it easy to see when students are off-task, defining task engagement is much more challenging and is not the equivalent of on-task behavior. Mohamadi's (2017) review of the literature shows us the multidimensional aspects of task engagement, which might include putting effort into task completion, participating in discussions related to the task, collaborating with another person to complete the task, caring about the quality of one's work, feeling that the task is of value, self-monitoring of task performance, and feeling a sense of accomplishment related to task completion.

Research on the relationship between self-efficacy and task engagement reveals a strong correlation between beliefs in one's capabilities to execute a task and engagement in that task (Ouweneel, Schaufeli, & Le Blanc, 2013). In a study conducted by Vera, Le Blanc, Taris, & Salanova (2014), task engagement was higher and more stable for individuals and small work groups with higher levels of self-efficacy. Participants with high efficacy beliefs at the start of tasks were capable of maintaining their levels of engagement, whereas participants with low efficacy beliefs became less engaged over time. Vera, Le Blanc, Taris, & Salanova (2014), measured task engagement by assessing the vigor, dedication, and absorption of participants. The assessment of task engagement using the this three-factor structure is based on definitions offered by Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002). *Vigor* refers to approaching tasks with high levels of energy, investing effort in one's work, exhibiting mental resilience, and persisting through difficult tasks. *Dedication* is portrayed through a person's sense of significance, enthusiasm, inspiration, pride, and challenge. Lastly, *absorption* is displayed when a person gets "lost" in his/her work (i.e., loses track of time) due to high levels of concentration. Given the correlation between self-efficacy and task engagement, teachers who foster self-efficacy at the individual and whole class level are likely to see positive changes in the vigor, dedication, and absorption of their students. Table X provides strategies that teachers can use to support positive efficacy beliefs and, thus, improve or shape task engagement within the classroom.

Table I: Shaping Task Engagement Through Self-Efficacy

ELEMENTS OF TASK ENGAGEMENT	SUPPORTING SELF-EFFICACY
Vigor	• Positivity can be contagious, so help your students approach tasks with optimism and positive energy by displaying these characteristics yourself; • Choose tasks that will be interesting or motivating to your students; • Provide students with choices when possible; When a student can choose the topic for a writing assignment or a science experiment, his/her enthusiasm for the task is likely to be greater; • Foster persistence by setting clear and reasonable task outcomes or goals; Students benefit when they know the criteria for completing a task; • Encourage students to put effort into difficult tasks and seek help or support from one another when tasks are either cognitively, physically, or socially challenging; • Difficult tasks should be "low risk" for students; Rather than setting up negative consequences (e.g., low grade, name added to a behavior chart, etc.), make sure students know they will be rewarded for their enthusiasm, effort, and persistence.
Dedication	• Help ensure that class activities have intrinsic value for students by making them relevant to life experiences and connect what the students are learning

	now to their future successes in life; • Remind students to take pride in their effort; Success should be related to the process of "trying" to solve a difficult problem rather than actually "solving" the problem; • Find a balance between challenge and ability when assigning tasks; If a task is either too challenging or not challenging enough for a student, he/she is more likely to become disengaged; • Differentiate your instruction and individualize your expectations based on the student's proficiency level and previous success.
Absorption	• Provide students with clear instructions. When students better understand their roles and responsibilities, they can become more engrossed in their individual and group work; • Ensure that students have all of the materials they need to complete tasks. When a student has to stop working to gather missing items, concentration on task completion can be lost; • Give students plenty of time to plan, implement, and complete learning tasks; Inform students as to how much time they have to complete various steps in a task; • Encourage students to communicate and cooperate with one another; Help them get "lost" in completing a task together.
Faltering: What to do when a student displays off-task behaviors…	• Look for early signs of disengagement and try to discretely draw a distracted student back into the learning activity; • When a student is off-task, do not blame the student for off-task or challenging behaviors, but look for environmental or social factors that could be contributing to the behaviors; • Talk to the student about what he/she is thinking about when off-task or challenging behaviors occur.

PRACTICE TWO

SOCIAL-COMMUNICATIVE ENGAGEMENT

Effective communication with teachers and other students is critical to academic and social success at school. Communicative exchanges are based on an ability to express one's thoughts, as well as interpret the linguistic meaning and intent of another speaker/communicator. Difficulty with social-communicative interactions may stem partially from low self-efficacy beliefs. Students are likely to feel frustrated if their communication abilities impede their ability to share "what they know" with a teacher or engage in social conversations with peers. These frustrations may result in a student believing he/she cannot contribute in class or interact with other students during social parts of the school day.

Fortunately, intervention research involving parents, caregivers, and teachers indicates that adults can have a strong influence on improving language skills and social interaction (Kashinath, Woods, & Goldstein, 2006; Romano & Woods, 2017). For example, an early childhood education study demonstrated that adults increased social engagement by using utterances to support peer communication and inviting children to interact together (Girolametto, Weitzman, & Greenberg, 2004). As communication is based on reciprocal interactions, it is important for teachers to recognize communication challenges and provide responsive strategies to help their students succeed academically and socially. Table II lists communicative situations that students will likely encounter at school and provides responsive strategies and coaching that a teacher can provide to support students' self-efficacy development related to communication.

Table II: Encouraging Social-Communicative Engagement Through Responsivity and Coaching

SOCIAL-COMMUNICATIVE BEHAVIORS	RESPONSIVE STRATEGIES AND COACHING
Initiating Conversation	• Provide opportunities for the student to communicate by implementing the OWL set of strategies. OWL stands for Observe, Wait, and Listen (Hanen Early Language Program, 2011). First, observe the student's actions, gestures, facial expressions, and visual focus. This will help you tune into the student's interest and possible thoughts. Next, wait for the student to start an interaction or respond to what you've said or done. Waiting sends a signal to the student that you are ready for him/her to initiate or respond. Listening involves paying close attention to the student's words and responding appropriately. Silence isn't necessarily a bad thing to happen during a conversation. Silence gives the student the opportunity to gather his/her thoughts and then initiate or respond; • Create reasons for the student to talk with peers (e.g., pair-share activities, small group discussions about a particular topic or question, etc.); • Provide the student with tips on how to approach a peer and coach the student on the organization of a conversation, which includes: 1. Greeting the other person, 2. Engaging in small talk, 3. Sharing information about the main conversational topic or telling a story, 4. Starting to wrap-up the conversation, and 5. Making a farewell statement (Beukelman & Mirenda, 2013).
Talking in class about a learning activity or topic	• Ask the student questions that he/she is likely to answer successfully; • When possible, ask questions that relate to the student's interests or experiences; • Provide adequate time for the student to respond; • Once the student responds, restate or expand the child's answer and provide positive a positive comment even if you need to change or interpret the student's response differently.
Oral presentations in class	• Have clear expectations for the presentation (i.e., length of time, use of technology, use of cue cards or other prompts, topics or points to be addressed in the presentation, presentation order); • Provide a scoring rubric so that the student knows how presentation content, as well as oral skills and presentation style are graded; • Coach the student on the oral communication skills expected during the presentation; • Allow the student to choose from a list of presentation topics to ensure relative comfort with the content; • Encourage the student to share examples or use visuals to relieve some of the pressure on "oral communication."
Being a part of a team (group projects)	• Assign the student to a group of students who will be supportive of his/her communication needs and consider forming mixed or heterogenous groups based on varying level of self-efficacy. The hope would be that students with high levels of self-efficacy could influence the beliefs of students with lower self-efficacy levels. • Ensure that the student has a clearly defined role in which he/she is capable of fulfilling. As necessary, assign the student a role that (a) matches his cognitive, physical, and social abilities and (b) is a desirable or interesting role within the group as motivation to participate and contribute positively; • Provide a visual organizer or an electronic tool for the team to use while

	creating a plan of action. The plan should include team goals, action steps and the student(s) responsible for each step. Remind the team that every student should have significant responsibilities; • When opportunities for problem-solving arise, help students develop a "can-do" mindset to work through the problem together. Collective efficacy goes beyond individual self-efficacy and can help the team persevere together (Vera, Le Blanc, Taris, & Salanova (2014). • Encourage team members to boost each other up and praise each student's contributions.
Adjusting communication styles depending on social situations and communication partners	• Have discussions about "code switching" in class to help the student know to adjust the way he/she speaks or uses particular vocabulary based on communication partners. For example, many adolescents demonstrate code switching when they use slang terms or phrases with their similar-age peers, but not with their parents, teachers, or younger siblings (Nippold, 2016). You might want to talk about this in terms of formal or informal talk. The student may need cues to use more formal talk during academic time vs. informal talk in the cafeteria; • Discuss the need to show concern for another person's feelings and try to anticipate situations when the student may need to demonstrate empathy; • When interpersonal conflicts arise, point out opportunities for the student to compromise or consider the perspective of the other person; • Give the student feedback on his/her ability to code switch, show concern for others, and compromise.
Repairing a communication breakdown	When another person *misunderstands the student's communication*, encourage the student to repair the communication breakdown by repeating or rephrasing his/her statement, changing a word, or altering the pronunciation of a misused word. When *the student misunderstands* another person's communication, encourage the student to ask the person to repeat or rephrase the statement, ask for clarification, or ask for an example.
Faltering: What to do when a student has difficulty developing relationships…	• Recognize when a student has difficulty participating in social interactions; Look for students who spend time mostly alone during social parts of the day (e.g., lunch, recess, pick-up line); Identify a peer buddy who is likely to be compassionate and patient with the student who struggles socially; • Encourage the student to talk openly with you, a counselor, and/or family member about his/her struggles • Provide consultation to family members by …. • Ensure that the student and his/her family members have the resources and tools necessary to meet the student's social and emotional needs. As warranted, connect families with relevant community partners, such as early childhood mental health professionals (U.S. Department of Health and Human Services and U.S. Department of Education, 2016).

The concept of self-efficacy as discussed by Bandura is defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave" (1994). There are four main sources of influences that may enhance one's efficacy:

Table III: Key Influences that Affect Self-Efficacy

INFLUENCES THAT ENHANCE EFFICACY	DESCRIPTION	CLASSROOM EXAMPLES
Mastery Experiences	As one has success over and over, he will feel positively about that skill This includes overcoming obstacles to master that skill	Child A answers an addition problem correctly in front of the class will increase the confidence Child A will be correct the next time, thus increasing the likelihood he'll raise his hand another time.
Vicarious experiences provided by social models	Observing other's success in accomplishing a skill yields higher self-efficacy Success is highly influenced by the perceived similarity of the social model	Seeing Child A above answer the math problem correctly and knowing Child B is as smart at math as Child A will increase the of Child B if he answered a math problem in front of the class, thus increasing the likelihood he'll raise his hand another time.
Social persuasion/Motivation	Positive reinforcement plays a large role in improving self-efficacy As those we hold in authority encourage and complement us through motivation, we are able to view ourselves as successful at a particular skill Structuring situations where success is inevitable will also reinforce one's self-efficacy	Teacher encourages verbally that Child A or Child B knows the answer and after answering correctly, acknowledges their accuracy.
Reduction of people's stress reactions/Improve self-regulation	Judging self-efficacy by one's mood or temperament can deflate the feeling of success Feeling stressed over impending success or failure may reduce the sensation of mastery	Using a white board at a desk rather than increasing potential anxiety for students to come up to the board to complete a math equation.

Better understanding of these four areas may allow educators, clinicians, and those who may influence the development of young people to support self-efficacy in their charges.

PRACTICE THREE

SELF-REGULATED LEARNING

As mentioned above, one of the influences to enhance a child's self-efficacy is social persuasion or motivation by an authority figure, like an educator. Adapting when in a difficult situation is highly related to one's motivation and is a main factor in successfully improving adaptive functioning. For example, a child's ability to handle life's typical demands, such as successfully navigating social expectations is influenced by his motivation to successfully navigate various situations (Dysvik & Kuvaas, 2013; Elliot & Dweck, 1988; Ryan & Deci, 2000).

Intrinsic and extrinsic motivation are the two types most commonly cited in research (Dysvik & Kuvaas, 2013; Ryan & Deci, 2000; Vallerand, 1997). Intrinsic motivation entails doing something for the joy of the experience and the pleasure or challenge inherent in the activity itself, rather than for a tangible reward such as a toy, a sticker or a piece of candy (Dysvik & Kuvaas, 2013; Ryan & Deci, 2000; Vallerand, 1997). Children are sometimes driven to succeed for the satisfaction of discovering something new as opposed to receiving a physical item. Extrinsic motivation is behaving a certain way because of the promise of obtaining a prize. (Dysvik & Kuvaas, 2013; Vallerand, 1997).

Feelings of significant vulnerability may occur if a child fails at his attempt (Elliot & Dweck, 1988). For example, a child essentially fails twice if he is unsuccessful at the intended behavior or activity presented and he fails at obtaining the tangible reinforcer. Although a significant amount of literature supports extrinsic rewards, Ryan & Deci (2000) propose that the success of tangible reinforcers varies depending on one's autonomy during the activity. When a child is internally motivated, one can sustain an activity or behavior longer than when an extrinsic reward is promised (Dysvik & Kuvaas, 2013; Vallerand, 1997). Ultimately, intrinsic motivation is important in building positive habits that increase self-esteem. If a child is intrinsically motivated, he will be less likely to be distracted during an activity because he will want to succeed. His motivation won't fluctuate over time, task, or setting. If the child continues to be satisfied with his work, he will build self-confidence and continue to work diligently.

Table IV: Intrinsic Motivation

EXAMPLES OF INTRINSIC MOTIVATION	WAYS TO TELL STUDENTS THEY'RE DOING A GOOD JOB
Process of learning	"Way to go"
Curiosity about a new topic	"I like how you …"
Tackling a challenge	"Great detail in your paper"
Mastery of a subject	"You worked really hard on your project"
Achievement of a learning goal	"What a brave decision you made"

PRACTICE FOUR

MULTI-SENSORY LEARNING ACTIVITIES

Recently, the concept of self-regulation has become a buzz word in the field of education. Regulation is often thought of as a process by which children incorporate metacognitive skills in order to manage emotions that may otherwise cause outbursts and tantrums.

Calkins (2007) described a process of self-regulatory development from infancy through the school years. In infancy, regulation is dependent on the parent's awareness, flexibility, and responsivity to emotional expression and the child's need for intervention at this stage. The focus is mostly on physiological, attentional, and emotional self-regulation. As the child moves into toddlerhood, the ability to initiate the use of a greater repertoire of self-regulating behaviors becomes critical. The child is now gaining autonomy, independence, control, and identity separate from the caregiver. In toddlerhood, the focus is on behavioral and cognitive control for continuing to build the early stages of physiological, attentional, and emotional self-regulation (Calkins, 2007). Behavioral regulation and executive functioning follow emotional regulation in typical development (Calkins, 2007). Some children with SM have significant difficulty with compliance and externalizing behaviors. This may be due in part to the relationships among challenges in these earlier regulatory abilities. The ability to display and regulate affect can mediate "interpersonal relationships and socio-emotional adjustment, including behavioral self-control" (Calkins, 2007, p. 13). Behavioral regulation is critical to a child's ability to function independently. Executive functioning incorporates "a number of cognitive factors including working memory and inhibitory control" (Calkins, 2007). Some authors were cited in Calkins's article stating that poor "executive functioning is common in children with attention problems" (Calkins, 2007). These deficits were linked more highly to externalizing behaviors.

Educators can now support self-regulation in the classroom to allow children to recognize and manage daily stressors whereby helping them stay calm and alert and thus lead to learning. Dr. Stuart Shanker of The Mehrit Centre in Ontario, Canada has developed a platform for self-regulation called Shanker Self-Reg®. (Shanker ,2018) that describes 5 domains of self-regulation. The first is the biological domain. This involves a person's ability to adapt his level of alertness in order pay attention during a particular task or situation. Though not exhaustive, Shanker (2018) suggests the following strategies for teachers to enhance a child's self-regulation in the biological domain:

- reducing visual and auditory distractors,
- predictable daily schedules,
- seating changes and use of adaptive seating,
- physical activities, fidget toys and other strategies to help children restore energy balance (up-regulating and down-regulating),
- using Alert Program® to help students understand their energy levels,
- learning to observe children's energy levels throughout the day and make adjustments in practice that help children to down-regulate or up-regulate.

The second domain is related to how one manages and controls emotion. This is not to squelch the experience of emotions, but rather to support and broaden the scope of emotions one may feel at any given time. The cognitive domain is the area most people consider when thinking of *regulation*. This incorporates goal-setting, monitoring progress toward a goal and adapting as necessary to accomplish the goal. Strategies in the classroom that can build attention and problem solving in the cognitive domain include:

- Play traditional games such as treasure hunts, jigsaw puzzles, obstacle courses and Simon Says, along with specially developed software and interactive dance games.
- building students' awareness of the kinds of situations they find challenging and what they can do to stay focused
- collaborative and self-selected learning opportunities
- adaptive strategies for students with auditory processing and expressive language disorders

The social domain is the fourth in Shanker's platform. This is one's ability to co-regulate and manage social interactions with others. Various classroom applications for social self-regulation include:

- collaborative learning opportunities
- being aware of and addressing signs of social stress in students
- building students' understanding and vocabulary around social interaction and relationships

• connecting/working with parents
• social-emotional learning programs such as *Reaching In Reaching Out* and PATHS
• using teachable moments to promote understanding of others' experiences and feelings

Finally, the prosocial domain is the fifth area Shanker discusses. In this domain, children are able to reflect on their own academic strengths and weaknesses with a large arsenal of strategies to combat challenges. Classroom applications to encourage empathy and other prosocial behavior in students include:

• using movies, novels and stories as teaching tools
• classroom practices that promote prosocial regulation in other domains
• structured programs such as Second Step and Roots of Empathy
• discussing positive role models and empathy in animals

Failures of these basic regulatory processes have cascading consequences … They contribute directly to behaviors that are disruptive to the child's functioning in the situations in which they occur. [Because] the child is unable to control negative affect, these failures limit opportunities to learn adaptive sills in social-interactional contexts with parents and peers. (Calkins, 2007)

PRACTICE FIVE

SUPPORTIVE FEEDBACK

Students' individual perceptions of their own capabilities are, of course, at least partially shaped by the learning environments created by schools and teachers. While performance outcome expectations are heavily dependent upon the types of feedback students receive from educators, the essential mechanism of low self-efficacy must be taken into consideration before teachers can begin to build strategies that provide adequate support for student self-efficacy. In short, many struggling learners come to school with a preset mindset of resistance and avoidance because they believe they lack the ability to succeed. Such a mindset leads to a lack of effort and even giving up on tasks that are similar to those previously failed by the student (Casteel, Isom, & Jordan, 2000; Chapman & Tunmer, 2003; Green, 2003, Lynch, 2002; Pintrich, 2003;).

Educators have the ability to provide *supportive feedback* to learners that can offset students' negative self-perceptions and emotional reactions to academic tasks. With an eye toward supporting student self-efficacy, mindful educational practice involves an understanding of four classroom communication styles that demand different levels of self-efficacious behavior and teacher feedback. Teacher communication style and the method of learning presented (Zimmerman, 2000) have a direct impact on students' development of self-efficacy. As indicated in the table below, instruction can be adjusted to lower or increase expectation levels across a hierarchy of communication styles: teacher prescriptive, teacher manipulative, teacher parental, and teacher empowerment (Green, 2003).

Table V: Communication Styles and Self-Efficacy

COMMUNICATION STYLE	PRESENTATION OF INFORMATION	LEARNING METHOD	SELF-EFFICACY
1. Teacher Prescriptive	Lecture format	Passive/note taking, minimal feedback, negative reinforcement *(student learns to avoid task)	External/forced
2. Teacher Manipulative	Lecture format, suggestive teaching, pop	Passive/note taking, minimal behavior	External/forced, minimal internalization of modeled

	questions, pop quizzes	modeling, minimal feedback, *negative reinforcement	behavior
3. Teacher Parental	Lecture/discussion format, student/peer teaching, some student choices on learning material and work	Minimal passive learning, active group and individual learning, frequent feedback	Internalized, self-goal setting behavior
4. Teacher Empowerment	Active/shared teaching & discussing format, student/peer teaching, negotiation on learning material and workload	Active group/individual learning, mentoring, independent study, timely feedback	Fully internalized, self-directing, individual self-monitoring, goal setting

By choosing learning methods that encourage independent study, choice of learning material and workload, students benefit from increased comfort with self-direction. Similarly, beginning with tasks that are easier for students (e.g., *warm-up* thinking activities, group learning) increases the likelihood of engagement and effort. Therefore, a teacher focus on students' self-perceptions of academic and social competence is necessary. While students can, and should, be presented with challenging material, skilled adult facilitators can scale tasks accordingly so that students are allowed to gradually build confidence. A boost of teacher encouragement goes a long way in influencing students' self-beliefs. Teachers who behave in ways that demonstrate *they believe in their students* can have a dramatic impact on student mental, emotional, as well as academic outcomes (Crain, 2000; Pajares, 2003).

According to Bandura (1986, 1997), self-efficacy beliefs are shaped in 4 ways: 1) enactive mastery experiences, 2) vicarious experiences, 3) verbal persuasion, and 4) physiological reactions. Educators may approach belief shaping from this perspective (as shown in Table VI).

Table VI: Factors that Shape Self-Efficacy Beliefs

BELIEF SHAPER	PROCESS	TEACHING METHODS
Enactive Mastery Experiences	Success strengthens self-efficacy, whereas repeated failure undermines it	Scale expectations, allow for *warm-up* practice, review content that is already mastered, encourage student mentoring of younger or less advanced learners (e.g., multi-age grouping)
Vicarious Experiences	Self-efficacy beliefs are based on others' performance on the task	Model imperfect/flawed performance and self-correction with a positive attitude, perform think-alouds about negative self-thoughts and how to reverse them, provide peer modeling of learning and how to overcome learning obstacles
Verbal Persuasion	Positive evaluative feedback from a credible source	Give pep talks, identify and describe hidden student strengths, point out successes, praise effort and attention, teacher focus on process over product, statements of task

		encouragement, e.g., *You're getting so good at this!*
Physiological Reactions	Heightened physiological arousals such as sweating, increased heart rate, fatigue, mood changes (e.g., anxiety, depression, fear, anger) that impact cognitive processing	Normalize emotions and physical responses to new material, e.g., *"It's normal to feel worried or stressed when learning something new",* help students self-identify physical and emotional reactions that occur in different learning situations

PRACTICE SIX

STUDENT-CENTERED LEARNING

Since students arrive at the classroom with varying degrees of actual learning difficulty as well as self-perceptions of difficulty, educators are asked to make quick assessments of student perspectives with the purpose of adapting their teaching approaches. Teachers are aware of common tools at their disposal for altering tasks such as reducing the complexity and/or length of assignments. Many teachers are not aware, however, of structured methods for assessing students' perceptions of academic demand or *friendliness* of the material (Margolis & McCabe, 2004). One such assessment is known as the *FLIP* method (Schum & Mangrum, 1991). This method asks students to rate learning activities in terms of Friendliness (F), Language (L), Interest (I), and Prior knowledge (P). For example, a student may indicate that an activity feels friendly because the vocabulary is easy to understand, the topic is interesting, and the content is related to memorable prior experiences. In this case, the student is set up for success and a higher degree of self-efficacy. On the other hand, when the language is rated as difficult, the topic lacks personal interest for the student, or the material does not easily relate to prior knowledge, the student is more likely to experience frustration, helplessness, and/or low self-efficacy. Teachers can make adaptations in lessons and materials to accommodate individual students' language levels, interests, and personal experiences (Leslie & Caldwell, 2009; McCormick, 2003; Schum & Mangrum, 1991).

According to Margolis & McCabe (2004), there are, relatedly, 7 instructional principles that facilitate self-efficacy within a student-centered learning environment (Table VII).

Table VII: Instructional Principles that Support Student Self-Efficacy

INSTRUCTIONAL PRINCIPLES	TEACHING METHODS
Frequently Link New Work to Recent Successes	• Stack the deck for success • Stimulate recall (Borich, 2000) • Shorten and simplify work • Use curriculum-based assessments • Ask how new work resembles past successes
Teach Needed Learning Strategies	• Provide explicit, systematic instruction • Sequence materials • Model and explain steps • Encourage cooperative learning activities
Reinforce Effort and Persistence	• Select tasks within learners' abilities • Help students realize they have the skills to

	succeed ● Praise effort each step of the way ● Introduce *difficult* tasks only when they are no longer difficult (Salvia & Ysseldyke, 2001; Swanson, 2000)
Stress Peer Modeling	● Provide coping models (i.e., models of how to overcome mistakes and/or negative feelings) as well as mastery models ● Select models who resemble the struggling learner ● Have models explain their actions and thought processes ● Attribute failure and success to controllable factors, e.g., low effort, use of the correct strategy ● Model positive self-talk, e.g., *I know enough vocabulary to understand what is happening in this story*
Teach Students to Make Facilitative Attributions	● Stress accurate attributions, i.e., beliefs about why things happen ● Associate success with controllable factors such as persistence, correct use of learning strategies, etc ● Emphasize what the student *did,* e.g., *I succeeded because … I followed the steps on my list … I stuck to it*
Help Students Create Personally Important Goals	● Identify short-term, specific goals that the student views as personally important ● Choose goals that make the student want to achieve, e.g., *I want to get a B on next week's vocabulary test* ● Discuss progress with the student in a positive manner, concentrating on achievement or how to continue improving
Incorporate Other Motivational Factors	● Create a safe, supportive environment ● Monitor the emotional security of the classroom ● Encourage student organizational skills ● Treat students with respect ● Give students choices ● Relate curriculum to students' lives and interests out of school ● Encourage sharing ● Provide clear expectations ● Avoid student embarrassment ● Stress cooperation over competition ● Emphasize what is *right* about students' work ● Challenge rather than frustrate students

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ABOUT THE BLUEGRASS CENTER FOR TEACHER QUALITY

The Bluegrass Center for Teacher Quality is a 501(c)(3) nonprofit organization based out of Kentucky. The mission of the Bluegrass Center for Teacher Quality is to provide high quality, research based professional learning opportunities to teachers in Kentucky. We will accomplish this goal by: (1) empowering educators to take ownership of their knowledge and share that knowledge with others, (2) facilitating school wide programs designed to usher in positive, lasting change in a school, (3) developing new models for professional development and researching new adult learning strategies, and (4) advocating for positive reform movements that make professional learning more readily available to all school staff. You can learn more about the Bluegrass Center for Teacher Quality at **www.bgteacherquality.org**.

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