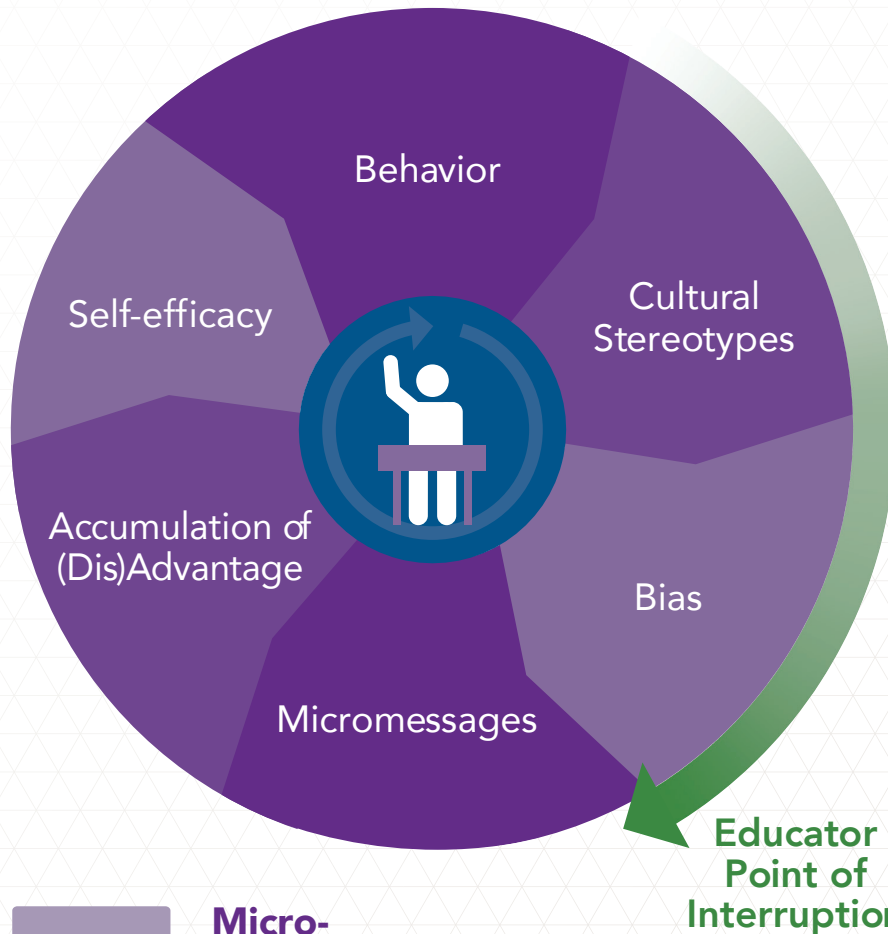


NAPE's Educational Model: The Culture Wheel

Culture shapes our beliefs and forms our biases about people based on their age, gender, race, language, (dis)ability, class, or income level, often without our realization. We communicate our biases through small, subtle, unconscious, but often powerful, messages called micromessages. The accumulation of these micromessages affects a person's self-efficacy—the belief in their ability to be successful in a program, course, college, or career.



You can interrupt the cycle.



Reflect on how *your communication* will impact the student



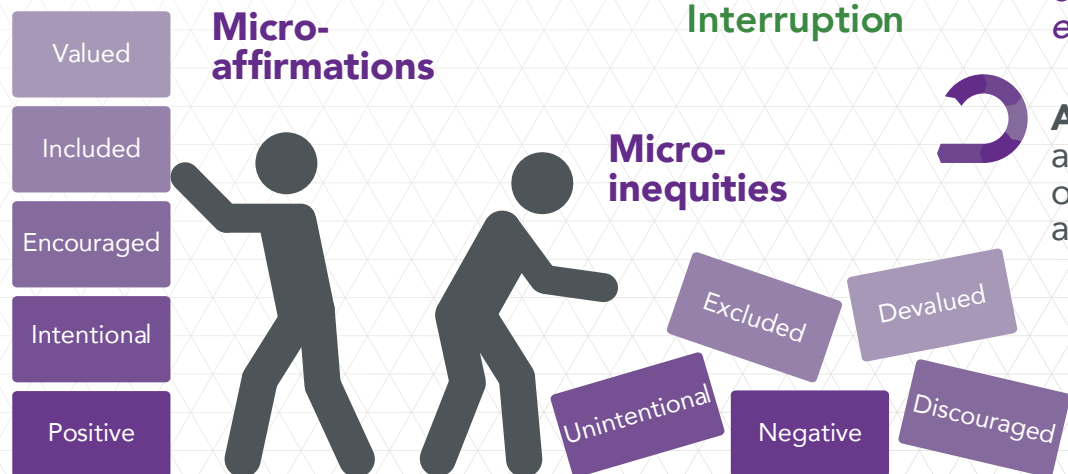
Consider the context and culture



Exercise mindfulness and intentionality to *get the best outcome for every student*



Anticipate and be aware of individuals and dynamics



IS IT SELF-EFFICACY OR NOT?

INSTRUCTIONS

Read each example decide whether or not it represents self-efficacy.

| Term | Self-Efficacy | Self-esteem | Self-Concept | Self-regulation |
|-------------------|--|--|---|---|
| Definition | The belief that one can perform certain behaviors or achieve specific goals. | One's beliefs and feelings about being a worthy and valued individual; refers to all aspects of one's self, not just to specific skills or qualities. Also called self-worth. | A broad view of one's self, across a wide range of characteristics. | The ability to manage one's behaviors, including the ability to set specific goals, and to use appropriate strategies to attain those goals. |
| Question | <i>"Can I do this?"</i> | <i>"How do I feel about myself?"</i> | <i>"What am I like?"</i> | <i>"What am I trying to achieve?"</i> and <i>"What do I need to do?"</i> |
| Example | When his Spanish teacher shows the class how to conjugate verbs in the future tense, Jeff feels confident that he can do the homework on this topic. | Sophia tried out for, but did not make, the soccer team; nevertheless, she still feels good about herself overall, and knows that she is valued by her friends, parents, and teachers. | Kerri is very artistic. She enjoys music, plays piano, and was voted class artist. However, she does not enjoy math or science and must work hard to succeed in her geometry class. (Note, this is a general, not a specific task.) | Mason wants to go on an exercise program and get into great physical shape. He develops a one-month plan and sets specific daily goals for himself. |

| Example | Self-Efficacy? | Why or Why Not? |
|--|--|--|
| Mabel: "Although I know where the engine is on a car, I still don't understand how the system works. I'm definitely going to fail some parts of tomorrow's quiz on describing how an engine works!" | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <i>Mabel indicates beliefs about her abilities in specific tasks: identifying where the engine is and describing how an engine works. This example answers the question "Can I do this?"</i> |
| Bob: "School is really hard for me. I'm really going to have to study to get better." | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| Brandon: "I'm not good at engineering. I don't belong in this class. I'll always be a failure in engineering." | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| Alexis: "After all that practice today, I understood today's classwork about how to add fractions. I'm sure I can do well on the related math homework tonight." | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| Rachel: "I set a New Year's resolution to get better at cooking this year, but I haven't really made much progress yet." | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| Alonzo: "I know I can lose 10 pounds by June if I stick to the diet plan and exercise three times a week." | <input type="checkbox"/> Yes <input type="checkbox"/> No | |

SELF-EFFICACY AND ITS SOURCES

| MASTERY EXPERIENCES | VICARIOUS EXPERIENCES | SOCIAL PERSUASION | PHYSIOLOGICAL CUES | |
|--|---|----------------------------------|--|---|
| Previous experience that suggests the individual's capability. | Learning through observing others perform the task. | Feedback and support from others | Physical symptoms interpreted as a reflection of capability. | |
| | | | | <p>Consider how self-efficacy has played a role in your own life. What personal examples can you identify about each source of self-efficacy that influenced your behavior, positive or negative? Think about each source, and record a personal example.</p> |
| | | | | <p>You may already address some or all of the four sources of self-efficacy in your work without even realizing it. What practices do you employ to increase self-efficacy that correlate to one or more of the four sources? Think about each source, and record the ways that you help students.</p> |

WHICH SOURCE?

INSTRUCTIONS:

Match the examples below to the correct sources of self-efficacy.

SELF-EFFICACY SOURCES

- Mastery Experiences
- Vicarious Experiences
- Social Persuasion
- Physiological or Emotional Cues

| Example | Source of Self-Efficacy |
|--|-------------------------------------|
| <p><i>Sample: Mrs. Campbell's students get nervous before their fifth-grade state science test. Some students tell the teacher they have butterflies in their stomachs or feel sick. Mrs. Campbell brings the class together and teaches techniques to manage nerves, such as breathing and meditation.</i></p> | <p>Physiological/Emotional Cues</p> |
| <p>Derrick is struggling in his nursing class at a community college. His self-efficacy decreases further when he receives a low quiz grade. After class, his instructor conferences with him. The instructor encourages Derrick by pointing out strengths on the quiz, giving Derrick specific feedback about why he lost points, and providing suggestions for how Derrick can improve on the next quiz.</p> | |
| <p>In Mrs. Kraus' eighth-grade technology and design class, students begin a project to create 3D key chains using a challenging coding program. This project is taught at the end of the unit, after students have worked their way through increasingly challenging coding programs.</p> | |
| <p>High school students in RoboRocks, the after-school robotics club, have made it to the state championships with their robot. As the team enters the competition arena, they begin to get nervous. They start to doubt their abilities as they compare their robot to those around them. The club coach notices that the students are nervous and gathers them together to take deep breathes, refocuses them on the task at hand, and reminds them of their past successes.</p> | |
| <p>Dr. Morrison teaches an introductory engineering course. When providing feedback on the first draft of students' design projects, she gives each student specific suggestions for improvement and the message: "I am giving you this feedback because I have high expectations and know you can reach them."</p> | |
| <p>Mr. Brunner is proud of how many females he has recruited to his automotive course. When he demonstrates how to take apart a transmission, he plays a video featuring a female mechanic successfully doing the job.</p> | |
| <p>Mr. Gold's third-grade math class is beginning a unit on addition and subtraction. Before introducing examples, Mr. Gold illustrates the concept through familiar pictures and examples. He asks students to work on visual and physical models before applying strategies to more abstract examples.</p> | |
| <p>Mrs. Carazano is a high school counselor and is responsible for organizing the annual career fair. She notices that most girls shy away from engineering and technical careers and most boys are reluctant to consider nursing fields. She also notices that marginalized students (related to ethnicity and socioeconomic status) seem averse to high-tech fields. When inviting professionals to the career fair, she intentionally chooses diverse representatives to help model the different paths available for all students.</p> | |

EVALUATING FEEDBACK

INSTRUCTIONS

Read the examples of feedback below and decide whether they are examples of effective or ineffective feedback, and explain your reasoning. You will then practice rewriting an example of ineffective feedback to make it more effective. Lastly, reflect on how you can change your feedback to better increase student self-efficacy.

Part 1: Is the Feedback Effective or Not?

Decide whether the examples below represent effective feedback and explain your reasoning.

| Feedback | Effective? | Explanation |
|--|---|--|
| <p><i>Example: A student is struggling to accurately locate and count a peer's pulse in a nursing course. The professor says: "You are doing a great job! Keep trying! You'll get there!"</i></p> | <p>No, this is ineffective feedback</p> | <p>This feedback is general & does not offer any additional instruction. It's also unrealistic—the student is not doing a good job—leading to lower trust between student & professor.</p> |
| <p>A student in a high school welding class is practicing making a fillet weld on a tee joint. The student consistently creates uneven welds. The teacher says, "I see you've mastered the techniques we've learned on holding the torch. Do you remember how you successfully made corner joints in our last project? You'll use a similar technique of moving the torch up and down evenly to weld the tee joint successfully. Try moving the torch up and down gently as you weld."</p> | | |
| <p>A sophomore goes to the high school counselor's office because she wants to get into Harvard and to start work on her admission essay. The counselor offers the following feedback after listening to her: "Let's focus on what you can do this year to help you reach your goal. I notice you have not joined any extra-curricular groups. Let's choose an after-school activity that you find interesting and meet again in a few weeks to look at other aspects that will help you grow a strong application for Harvard or another excellent school."</p> | | |
| <p>A student in a Physical Education class is evaluated while using strength training equipment. The teacher says: "That's wrong. Do it again."</p> | | |
| <p>A freshman writing professor conducts one-on-one meetings with students to provide feedback. In a recent meeting, she tells a student: "Your supporting statements in your essay last month were very weak."</p> | | |
| <p>A middle school math student receives back his inquiry project, which has comments that praises strong skills and critiques weak areas. The following note is written at the top of the project: "I am giving you this feedback because I have high expectations for you and I know you can reach them. Read my comments, and revise areas that I've identified as needing improvement. Come to my tutoring class if you are not sure how to improve these areas."</p> | | |
| <p>A fourth-grade teacher instructs an advanced math class as they prepare for the state test. A student continually struggles in the class. After another incorrect answer during cold calling, the teacher says: "I don't know why you're here. You never should have been allowed in this class in the first place."</p> | | |

Part 2: Rewrite the Feedback

Read the scenario in the block. Rewrite the teacher’s feedback to be more effective, using the key characteristics of effective feedback.

KEY CHARACTERISTICS

- Specific and Informative
- Timely and Frequent
- Based on Initial Steps
- Growth Minded
- Respectful and Informative
- Prompting, Not Answering

Ms. Deal is teaching a high school composition course. One of her students, Roland, has recently struggled with some of the assignments. He has been disorganized in taking notes and keeping track of citations. His supporting evidence for his arguments has been uneven. Ms. Deal returns his latest persuasive essay, with the following written at the top in red ink: A large letter “C” and the words “Needs Improvement.”

How could you improve this feedback? Rewrite a better response in the space provided.

REFLECTION

1. How do you provide feedback in your practice?
2. How could you improve how you provide feedback to increase self-efficacy?
3. Describe one or two strategies you can use to improve how you provide feedback in your practice.

SUMMARY OF STRATEGIES BY SOURCE

By incorporating these super strategies for each of the four sources of self-efficacy into your practice, you will increase student motivation, engagement, performance, persistence, and success!

Mastery Experiences

The key to effective mastery experience interventions is the inclusion of proximal goal setting (clear markers of progress) and self-regulation (the ability to act in one's long-term best interest). Think baby steps to success!

- Have students list or track mastery experiences to remind them of success.
- Incorporate activities and projects that require self-regulation.
- Provide specific support and assistance (scaffolds) that fosters self-regulation.
- Tailor activities to students' ability level so that they are challenging but not impossible.
- Structure activities to include small tasks that allow multiple mastery experiences—learning or accomplishing one piece at a time. Also incorporate proximal goals.
- Maximize the impact of the mastery experience by providing feedback and encouragement (i.e., social persuasion). Help students interpret these experiences in ways that enhance self-efficacy.
- Help students understand that failure is valuable to learning and is not a reflection of ability.

Vicarious Experiences

The key to effective vicarious experience interventions is learning through observing others perform tasks. Role models are especially influential when they are perceived as similar to the observer.

- Introduce students to role models who look like them or might have similar upbringings, or with whom students perceive similarities between the models and themselves. For instance, a girl's science self-efficacy is more positively affected by interacting with a young female chemist than an older male chemist.
- Invite more advanced (e.g., high school, undergraduate, or graduate) students and professionals into classrooms to work with students (e.g., solving math problems or conducting a science experiment) or to share their experiences and successes.
- Assign group-work to groups that are carefully composed: ideally, at least one group member has slightly higher math or science skills and serves as a model to the other group members.
- Call on students as "scientists," "mathematicians," "programmers," "engineers," "problem-solvers," etc. This helps students build an identity in the subject and potential profession.
- Integrate a flipped learning environment. A flipped classroom is a form of blended learning that brings an interactive engagement pedagogy to classrooms by

having students learn content online, usually at home, and do homework in class, with teachers and students discussing and solving questions.

Social Persuasion

The key to effective social persuasion interventions is to accompany each with a mastery experience, that is, feedback about task-related strengths and weaknesses is more informative when it is tied to a specific learning experience or previous performance.

- Give feedback and support that is genuine, appropriate, and realistic. Offer an explicit invocation of high standards and personal assurance that students will improve with effort. Feedback must be accurate and focused on developing task-related knowledge and skills.
- Encourage students to persist despite difficulties and setbacks.
- Acknowledge and reward effort instead of just results.
- Inform parents and guardians of the importance of supporting their students. Parents' encouragement and expectations have been shown to be a more important predictor of a child's self-efficacy than a child's own involvement in the activity.
- Ensure that personal biases are not unintentionally negating your well-intended feedback and support through negative micromessages.

Physiological/Emotional Cues

The key to effective emotional/physiological reactions interventions is to ensure that students do not relate negative reactions to their ability to accomplish a task or succeed.

- Discuss the experience of anxiety with students, and explain that they can control their physiological reactions.
- Teach students effective anxiety-management strategies, including breathing and visualization exercises, as well as relaxation techniques.
- Encourage students to attend fully to the task at hand, which should reduce attention paid to apprehensions and fears, thereby reducing task-related anxiety.
- Privately downplay noticeable physiological reactions, such as sweating or flushing, as common occurrences that are not in any way connected to the student's ability.
- When a student has a positive emotional (happy) or physiological (energized) reaction during or after a task, connect the state to his or her displayed effort and likely intrinsic interest for the task. Ultimately, help students interpret these positive experiences in ways that enhance self-efficacy.