<u>Standard III</u> <u>Element D</u>

LEVEL 1 PRACTICES

THE TEACHER:

1 Establishes expectations at a level that challenges students.

Carol Dweck's research reveals that we develop early in life a "mind-set" about what it means to be smart and how we become successful. Students with a fixed mind-set feel a sense of inevitability when they encounter difficulty in school. Students with a growth mind-set believe that if a skill or task is difficult, they can nonetheless achieve mastery because their continuing effort will win the day. Their motivation to work hard is high because they believe the payoff will be worth their investment. (Dweck, 2006)

In 1968, Robert Rosenthal and Lenore Jacobson conducted research on the impact of teachers' expectations on student achievement, which became known as the Pygmalion effect. They concluded that teacher expectations can be self-fulfilling prophecies for their students. When teachers were told students had high achievement levels, the students made higher gains than students who teachers viewed as lower achievers.

Since Rosenthal and Jacobson's research was conducted, studies have continued to show that a teacher's <u>high</u> <u>expectations</u> have a considerable impact on student motivation and achievement.

Teachers who produce the greatest learning gains accept responsibility for teaching their students. They believe that students are capable of learning and that they (the teachers) can teach them (Encyclopedia of Educational Research, 1992).

Teachers with high expectations for their students continually communicate that it is not acceptable to not try, that I am supporting you, I believe in you, and I am not going to let you quit or get by with mediocre work.

For expectations to be at a level that challenges students, skills taught should be slightly in advance of a student's current level of mastery. Psychologists tell us that a student learns only when a task is slightly too hard. When a student can do work with little effort, and virtually independently, that student is not learning, but rather rehearsing the known. When a student finds a task beyond his or her reach, frustration—not learning—is the result. Only when a task is slightly beyond the student's comfort level, and the student finds a support system to bridge the gap, does learning occur. This theory is grounded in the work of Lev Vygotsky (1978) and the zone of proximal development (ZPD), the range at which learning takes place. The classroom research by Fisher, et al. (1980) strongly supports the ZPD concept. Researchers found that, in classrooms where individuals were performing at a level of about 80% accuracy, students learned more and felt better about themselves and the subject area (Tomlinson, 2000).

When teachers implement this Professional Practice, they are increasing their levels of expectations to continually challenge students.

Challenging all students not only requires setting high expectations for all students, but also requires the creation of a learning environment in which students feel respected and safe to take risks. Students must trust that their efforts matter and that making mistakes is an important part of the learning process.

The teacher who works to establish expectations that challenge students must:

- Plan instruction that addresses the academic needs and learning preferences of all students. *See also* <u>Standard II, Element C</u>.
- Create a classroom environment in which students feel safe taking risks.

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COLORADO Department of Education See also Standard II, Element A.

- Encourage students to feel a sense of ownership over their learning. According to Conley in the article, "A Complete Definition of College and Career Readiness," key characteristics of college and career readiness include: student ownership of learning, which includes goal setting, persistence, self-awareness, motivation, progress monitoring, help seeking, and self-efficacy; and specific learning techniques, such as time management, study skills, strategic reading, memorization techniques, collaborative learning, technology skills, and self-monitoring. (Conley, 2012)
- Communicate that content is important and makes it meaningful for students addresses the "why" for learning.
- Teach students that mistakes are part of the learning process and that effort is a key to success.
- Provide feedback on students' progress and next steps. "Effective teachers set appropriately challenging goals and then structure situations so that students can reach their goals" (Kagan & Kagan, 2009). If teachers can encourage students to share commitment to these challenging goals, and if they provide feedback on how to be successful in learning as one is working to achieve the goals, then goals are more likely to be attained.

See also Standard III, Element B.

Refer to this internal resource for additional information:

- How Teachers Communicate Expectations to Students
 - Document identifies teacher behaviors that communicate high expectations to students.

2 Plans lessons that incorporate critical-thinking and problem-solving skills.

<u>Critical thinking</u> differs from mere acquisition of knowledge or skills in that it involves the application of skills in order to evaluate, analyze, and/or synthesize, information gathered from, or generated by, observation, experience, reflection, reasoning, or communication.

Reference this YouTube video, <u>http://www.youtube.com/watch?v=ZLyUHbexz04</u>, for additional explanations of critical thinking.

<u>Problem-solving</u> skills involve the ability to critically analyze a problem, identify and organize relevant information, and then prepare a workable solution.

"Some research suggests that problem solving is to the brain what aerobic exercise is to the body. It creates a virtual explosion of activity, causing synapses to form, neurotransmitters to activate, and blood flow to increase." (Jensen, 2008, p. 142)

Characteristics of a critical thinker and problem-solver:

- Asks questions that are clear, on topic, and enhance learning.
- Is open-minded and aware of different perspectives and alternatives.
- Evaluates credibility and relevancy of information.
- Interprets information and uses to develop well-reasoned conclusions and solutions.
- Is able to develop an evidence-based opinion and reasonably defend it.
- Communicates effectively with others in figuring out solutions to complex problems.

Ways to incorporate critical thinking and problem-solving skills in the classroom:

- Have students apply content they are learning to previous knowledge, real-world situations, and/or other disciplines.
- Focus on fundamental and powerful concepts with high generalizability as tools for learning and application.
- Provide opportunities for students to select learning strategies that best fit the skill required as well as

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COLORADO Department of Education their own learning preferences. See also Standard II, Element C.

Refer to these internal resources for additional information:

- <u>Common Core State Standards and Critical Thinking</u>
 - Document explains the connections between the Common Core State Standards and critical thinking skills.
- Types of Problem-Solving Skills with Definitions and Examples
 - Document provides definitions and examples of seven types of problem-solving skills examples of problem-solving tasks.

Refer to this external resource for additional information:

Article: "The Challenge of Challenging Text by Timothy Shanahan" by Douglas Fisher and Nancy Frey <u>http://www.ascd.org/publications/educational-leadership/mar12/vol69/num06/The-Challenge-of-</u> <u>Challenging-Text.aspx</u>

Article provides an explanation for what makes a text challenging with references to Common Core expectations.

Planning/Coaching Questions

- How do you establish expectations at a level that challenges all students?
- How do you model critical-thinking and problem-solving skills to students?
- How do you provide opportunities for students to apply critical-thinking and problem-solving skills?
- How do you ensure the questions I ask are challenging for all students?
- How do you plan for the scaffolding of questions?
- How do you ensure all students are provided appropriate wait time?

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