



Indicator: All teachers promote a growth mindset by attributing learning success to effort and self-regulation and insist upon (and reward) persistence to mastery. (5089)

Explanation: Students' belief that their abilities and capabilities can improve over time, known as a growth mindset, positively impacts their achievement. Teachers can provide an environment that promotes a growth mindset by emphasizing praise of learner effort, assisting learners in utilizing effective self-regulation skills, and by encouraging students to adopt a mastery-orientation toward goals.

Questions: What is a growth mindset? How can teachers help student develop a growth mindset?

What is a growth mindset?

A growth mindset is the belief that one can develop his or her academic success over time; that one's abilities and skills are not fixed, unable to be improved upon (Blackwell Trzesniewski, & Dweck, 2007; Dweck, 1999, 2007). Students with a growth mindset value effort; they realize that even geniuses have to work hard to develop their abilities and make their contributions. They are more likely to respond to initial obstacles by remaining involved, trying new strategies, and using all the resources at their disposal for learning (Dweck, 2010). A substantial body of evidence indicates that students' academic and lifelong success is a function of both their actual achievement and their attitudes, or mindsets, about achievement (Borghans, Duckworth, Heckman & Ter Weel, 2008).

How can teachers help student develop a growth mindset?

In order to help students develop a growth mindset, teachers must focus on approaches to learning that assist students in improving incrementally and recognizing those improvements.

Learner Effort. Teachers should focus praise on a learner's particular work product or process (e.g., "What a wonderful essay"; "I can see you worked on this very carefully") instead of praising the person (e.g., "You are such a smart girl") (e.g., Ginott, 1965; Good & Brophy, 1984; Kanouse, Gumpert, & Canavan-Gumpert, 1981; Kamins & Dweck, 1999; Mueller & Dweck, 1998). Behavior-specific praise is more motivating because it provides detailed feedback to students about competence and effective problem-solving strategies that they may apply in the future (O'Leary & O'Leary, 1977). In addition, praise for effort leads to more effort and student attribution of success to strategies (Mueller and Dweck, 1998).

Self-Regulation Strategies. Self-regulation strategies, such as goal-setting, strategy use, self-monitoring and modification of approach, have been shown to be effective techniques that impact student performance and achievement (see Koegel, Koegel, Harrower & Carter). Learners with a growth mindset tend to set more challenging goals, develop more adaptive strategies for learning, persist longer, and ultimately perform better (Locke & Latham, 2002; Sitzmann & Ely, 2011; Zimmerman, 2002). Self-regulation skills can be taught to all learners in order to improve their ability to effectively assess a situation, monitor their performance, and adjust their behaviors accordingly (Axelrod, Zhe,

Haugen & Klein, 2009), thereby increasing their growth mindset as well.

Mastery-orientation. Central for mastery goal-oriented individuals is the focus on learning, developing new skills, improving the level of competence to a mastery level and trying to understand new learning subjects. Research indicates that students show the most beneficial achievement patterns and motivational patterns when they focus on a mastery goal orientation (see Meece, Anderman, & Anderman, 2006). Students with a growth mindset are more likely to focus on a mastery goal orientation, responding to academic challenges with sustained effort (e.g., Cury et al., 2006; Dweck & Sorich, 1999; Henderson & Dweck, 1990; Law, 2009). This sustained effort, or mastery-orientation, promotes achievement and improved learning outcomes (Folkman, Lazarus, Gruen, & DeLongis, 1986).

Teachers of mastery-oriented classrooms should provide 1) appropriate learner tasks (including a focus on learning, curiosity, and active student involvement) and enough time for students to complete those tasks at their own pace; 2) opportunities for students to participate actively in making decisions pertaining to instruction and rules in classroom; 3) meaningful and specific feedback to the learners; and 4) opportunities for students to work in groups collaboratively where self-evaluation and self-monitoring (including adjustment following errors) is encouraged (Lüftenegger, van de Schoot, Schober, Finsterwald, Spiel, 2014).

References and resources

- Axelrod, M. I., Zhe, E. J., Haugen, K. A., & Klein, J. A. (2009). Self-management of on-task homework behavior: A promising strategy for adolescents with attention and behavior problems. *School Psychology Review, 38*, 325–333.
- Blackwell, L., Trzesniewski, K., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development, 78*(1), 246–263.
- Borghans, L., Duckworth, A. L., Heckman, J. J. and Ter Weel, B. (2008). The economics and psychology of personality traits. *Journal of Human Resources, 43*(4), 972–1059.
- Cury, F., Elliot, A. J., Da Fonseca, D., & Moller, A. C. (2006). The social cognitive model of achievement motivation and the 2x2 achievement goal framework. *Journal of Personality and Social Psychology, 90*, 666 – 679.
- Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Philadelphia: Psychology Press.
- Dweck, C. S. (2007). The perils and promises of praise. *Educational Leadership, 65*(2), 34–39.
- Dweck, C.S. (2010). Even geniuses work hard. *Educational Leadership, 68*(1), 16–20.
- Dweck, C. S., & Sorich, L. A. (1999). Mastery-oriented thinking. In C. R. Snyder (Ed.), *Coping: The psychology of what works* (pp. 232–251). New York, NY: Oxford University Press.
- Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis, A. (1986). Appraisal, coping, health status, and psychological symptoms. *Journal of Personality and Social Psychology, 50*, 571–579.
- Ginott, H. G. (1965). *Between parent and child*. New York, NY: Macmillan.
- Good, T. L., & Brophy, J. E. (1984). *Looking in classrooms*. New York, NY: Harper & Row.
- Henderson, V., & Dweck, C. (1990). Adolescence and achievement. In S. Feldman & G. Elliott (Eds.), *At the threshold: Adolescent development* (pp. 308 –329). Cambridge, MA: Harvard University Press.
- Kamins, M. L., & Dweck, C. S. (1999). Person versus process praise and criticism: Implications for contingent self-worth and coping. *Developmental Psychology, 35*, 835–847.
- Kanouse, D. E., Gumpert, P., & Canavan-Gumpert, D. (1981). The semantics of praise. In J. H. Harvey, W. Ickes, & R. F. Kidd (Eds.), *New directions in attribution research* (Vol. 3, pp. 97–115). Hillsdale, NJ: Erlbaum.
- Koegel, L. K., Koegel, R. L., Harrower, J. K., & Carter, C. M. (1999). Pivotal response intervention I: Overview of approach. *Journal of the Association for Persons with Severe Handicaps, 24*, 174–185.
- Law, Y. (2009). The role of attribution beliefs, motivation and strategy use in Chinese fifth-graders' reading comprehension. *Educational Research, 51*, 77–95.
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist, 57*, 705–717.

- Lüftenegger, M., van de Schoot, R., Schober, B., Finsterwald, M., & Spiel, C. (2014). Promotion of students' mastery goal orientations: Does TARGET work? *Educational Psychology, 34*(4), 451–469.
- Meece, J., Anderman, E. M., & Anderman, L. H. (2006). Classroom goal structure, student motivation, and academic achievement. *Annual Review of Psychology, 57*, 505–528.
- Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology, 75*, 33–52.
- O'Leary, K. D., & O'Leary, S. G. (1977). *Classroom management: The successful use of behavior modification* (2nd ed.). New York, NY: Pergamon Press.
- Sitzmann, T., & Ely, K. (2011). A meta-analysis of self-regulated learning in work-related training and educational attainment: What we know and where we need to go. *Psychological Bulletin, 137*, 421–442.
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice, 41*, 64–70.
- ©2016 Academic Development Institute