

Research Guide (Grades 7–12)

College and Career Competency: *Goal Setting*

Definition:

In the context of education, goal setting often refers to identifying specific academic objectives. A wider definition encompasses specific long-term or short-term life or career objectives. Research conducted by Locke and Latham found that people perform better when they have goals and that goals “direct attention, effort, and action toward goal-relevant actions” and away from actions that don’t relate to the goal (Locke & Latham, 1990, 2002, as cited in Shogren, 2013, p. 60).

Essential Components for Students:

Set a goal that is:

1. Meaningful to you.
2. Focused on your own personal improvement; don’t compare yourself to others.
3. Based on data, including prior experiences; interests and skills; and feedback of family members, teachers, peers, or another trusted person.

Research:

- Why goals are pursued will impact educational outcomes. For example, students who pursue educational goals for autonomous reasons, rather than being told to, will be more likely to endorse the values being taught, persist in the behaviors required to achieve the goals, and proactively cope with failures (Deci & Ryan, 2000).
 - Autonomous reasons can be based on intrinsic interest or enjoyment or based on a goal that is inherently important (Milyavskaya et al., 2014).
 - Goals that individuals feel forced to adopt because of shame, guilt, or extrinsic motivation will result in less successful outcomes (Milyavskaya et al., 2014).
- Goals typically have two orientations: mastery or performance. With a mastery orientation, the student engages in a task to develop ability. Success in mastery goals is judged by progress over time or progress against an absolute standard (Friedel et al., 2010). The other orientation, performance, emphasizes the demonstration of ability, and success is usually judged in relation to others’ performance (Friedel et al., 2010). An example of a mastery goal is “I want to get better at algebra, so I will spend time each night this week working on practice problems.” An example of a performance goal is “I will get a better grade than Isabelle on the science test.”
 - Research shows that mastery goals are consistently associated with higher levels of academic **self-efficacy**, but the relationships between performance goals and **self-efficacy** (the belief in your ability to succeed at specific outcomes [Bandura, 1977]) are much less consistent (Friedel et al., 2010).
 - A research study (Friedel et al., 2010) that examined how changes in teacher goal emphasis impacted students’ **self-efficacy** in math as they transitioned to middle school found that an increase in **self-efficacy** could be predicted when the students perceived the teacher was emphasizing mastery rather than performance goals. As late as seventh grade, teachers can positively impact mathematics **self-efficacy** beliefs (and counter low

self-efficacy beliefs from previous classroom experiences in math) by emphasizing learning and improving understanding (mastery goals). Simply put, teachers can undo previous negative effects.

- Students as young as 5–6 can be taught to set goals through the application of the Self-Determined Learning Model of Instruction. While the model was originally developed for adolescents (with and without disabilities), it can be successfully adapted for early elementary grades (Palmer & Wehmeyer, 2003) See the Instructional Strategies section below for the instructional process for implementing the model.
- The path from setting goals to accomplishing goals is complex and requires both 1) sufficient commitment to goals during goal setting and 2) effective planning and goal-oriented behaviors during goal striving (i.e., working toward the goal; Boekaerts & Corno, 2005; Duckworth et al., 2011). Research (Duckworth et al., 2011) conducted with 66 second-year high school students at an urban school showed that **self-regulatory** strategies for successful goal pursuit can be taught directly.
 - The **self-regulatory** strategies consist of mental contrasting and implementation intentions, which are defined below.
 - Mental contrasting involves imagining a desired future (e.g., graduating high school, doing well on a test) and then reflecting on the present reality and any obstacles that might stand in the way (Oettingen & Gollwitzer, 2010).
 - Implementation intentions specify when, where, and how the goal will be pursued (Oettingen & Gollwitzer, 2010). They can take the form of if–then plans that highlight what step the student will take in different situations to stay on track during goal striving. For example, in the study by Duckworth et al. (2011), students identified two positive outcomes of completing practice tests in a PSAT preparation workbook and two potential obstacles to completing the tests (mental contrasting). They then wrote potential solutions in the form of if–then statements to overcome the obstacles (implementation intentions). These students completed 60% more practice questions than students who did not use the mental contrasting/implementation intentions.
- Self-determination theory (Deci & Ryan, 1985, as cited in Dietrich & Salmela-Aro, 2013) suggests that supportive and structured parenting will foster autonomous (versus controlled) goal motivation and goal pursuit. In a study of 807 Finnish adolescents, students with parents who supported their career goals were more likely to reach those goals (Dietrich & Salmela-Aro, 2013). This research reinforces the importance of including others in the goal setting process.
- Goals that are specific and challenging (but attainable) lead to better task performance than easy or vague goals (Locke & Latham, 2006).
- Goal setting positively affects performance and enhances achievement (Boekaerts, 2002; Edwings, 1995; Griffiee & Templi, 1997; Moriarity et al., 2001; Schunk, 2003, as cited in Moeller et al., 2012).
- “Studies have shown that appropriate goal setting, along with timely and specific feedback, can lead to higher achievement, better performance, a high level of **self-efficacy**, and **self-regulation**” (Moeller et al., 2012, p. 154).
- High school students learning Spanish who set goals, developed action plans to achieve their goals, and reflected on their attainment achieved higher language proficiency than students who were not proficient in goal setting (Moeller et al., 2012).

Assessments:

- The Goal Setting Formative Questionnaire (Gaumer Erickson et al., 2017) is a 19-item instrument that measures a student’s proficiency in the three essential components of goal setting: selecting a personally meaningful goal, ensuring that the goal is focused on personal improvement (not comparison to others), and using past data and experiences to make the goal realistic. The Goal Setting Formative Questionnaire results can be used by both teachers and students to assess relative strengths and areas for improvement. Students are asked to rate themselves on each item using a 5-point Likert-type scale (1 = *not very like me*, and 5 = *very like me*); results are displayed on a 100-point scale. The results are automatically graphed for students once they complete the questionnaire, enabling them to immediately reflect on their results. Results are also available to the teacher for individual students and in aggregate. The following example items represent each of the three essential components:
 - I set goals to achieve what I think is important. (Meaningful to you)
 - I focus on my own improvement instead of worrying about whether other people are doing better than me. (Personal improvement)
 - When setting a goal, I think about my past successes and failures. (Data and experiences)

Teachers can access the questionnaire by setting up an account through <https://www.cccstudent.org/> and following the instructions to launch a survey and administer it to students. Students (and teachers) can use individual questionnaire results to identify goal setting behaviors that students can focus on cultivating or strengthening.

Instructional Practices:

- Apply the Self-Determined Learning Model of Instruction (SDLMI), which consists of three instructional phases. The SDLMI can be integrated into any teaching model and incorporates many student-directed learning strategies that directly involve students in setting and pursuing goals linked to desired outcomes (Shogren, 2019, p. 68). Goal setting is found in phase 1 (Palmer & Wehmeyer, 2003; Wehmeyer et al., 2000).
 - See the [Teacher’s Guide](#) (Shogren et al., 2019).
 - See the National Secondary Transition Technical Assistance Center’s (2012) [resource](#) on using the Self-Determined Learning Model of Instruction to teach goal attainment (login required).
- Teach students to write SMART goals: goals that are Specific, Measurable, Attainable, Relevant, and Time-bound.
 - Using this technique, a basic goal like “I will study for my test” becomes “Tonight I will spend two hours studying my class notes and the textbook to prepare for tomorrow’s math test.”
- When assigning important long-term projects, ask students to use mental contrasting to “mentally elaborate the benefits of completing the project as well as the obstacles that may hinder completion” (Duckworth et al., 2011, p. 24) and follow this with classroom time for students to articulate implementation intentions by preparing if-then plans.
- Help young children develop autonomy by enabling and supporting choice making. This is especially important for children with disabilities (Palmer et al., 2012).
- Apply the Possible Selves Mapping Intervention (PSMI), which helps students set personal goals and develop self-management skills by having them imagine possible futures (Shepard & Quressette, 2010).

- Ask students to think about what they would like to become in the future (even if unlikely); also ask them to imagine aspects about themselves in the future that they would want to avoid.
- Then ask students to reflect on the steps they have taken recently to either bring about their hoped-for self or to avoid an undesirable outcome.
- See [more information about the intervention](#).

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