Research Guide (Grades PreK–6)
College and Career Competency: *Goal Setting*

Definition:

In the context of education, goal setting often refers to identifying specific academic objectives, but a wider definition encompasses specific short- or long-term life or career objectives (Noonan & Gaumer Erickson, 2018). Research conducted by Locke and Latham (2002) found that individuals perform better when they have goals that "direct attention and effort toward goal-relevant activities" and away from actions that don't relate to the goal. In short, goal setting can be defined as focusing on your own improvement by identifying goals that are meaningful and based on data (Gaumer Erickson & Noonan, 2016).

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:

*   Setting appropriate social goals (i.e., making a friend or helping someone with a problem) is an important factor in how well students adjust to school (Wentzel, 2002). Teachers can influence which classroom-specific goals students pursue by defining appropriate classroom behavior and standards, i.e., ones that lead to social and academic competence. Researchers have examined how elementary students choose social goals by presenting them with hypothetical situations where conflict between peers is present, then asking the student to create a goal for the presented situation or to choose goals that represent specific dimensions of behavior (Wentzel, 2002).
*   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 was adapted for early elementary grades (Palmer & Wehmeyer, 2003). See the **Instructional Practices** section below for the details on implementing the model.
*   Goal setting is critical to motivation and learning. Additionally, when goals have specificity, relevance, and the correct amount of difficulty, goal setting supports the development of self-efficacy (Locke & Latham, 1990).
*   Adding goal setting supports to other learning strategies has had a positive effect on young students' performance on academic goals (Codding et al., 2011). Kindergartners who received goal setting supports in conjunction with the Kindergarten Peer Assisted Learning Strategies (K-PALS) math program (Fuchs et al., 2001) scored significantly higher on measures of number identification and missing numbers than children who only received the K-PALS instruction (Codding et al., 2011; Fuchs et al., 2001).

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- Student-teacher conferences with goal setting are an effective way to help students self-evaluate capabilities and take greater responsibility for their successes (Schunk, 2003). For example, when students participated in weekly conferences on reading skills that included feedback on the previous week's activities, a list of reading skills, and then the opportunity to set goals for skills they would master next, they demonstrated higher reading accomplishments than students who did not participate in the weekly conferences.
- Self-efficacy and goal setting are related and can support and build on each other when they are intentionally integrated in instructional practices. When children choose their own goals, they are more likely to successfully work towards and achieve those goals (increasing self-efficacy), and when goal orientation is focused on learning and improvement (mastery), it bolsters self-efficacy (Phillips & Gully, 1997). Similarly, when students have higher self-efficacy, they are likely to pursue more challenging goals.
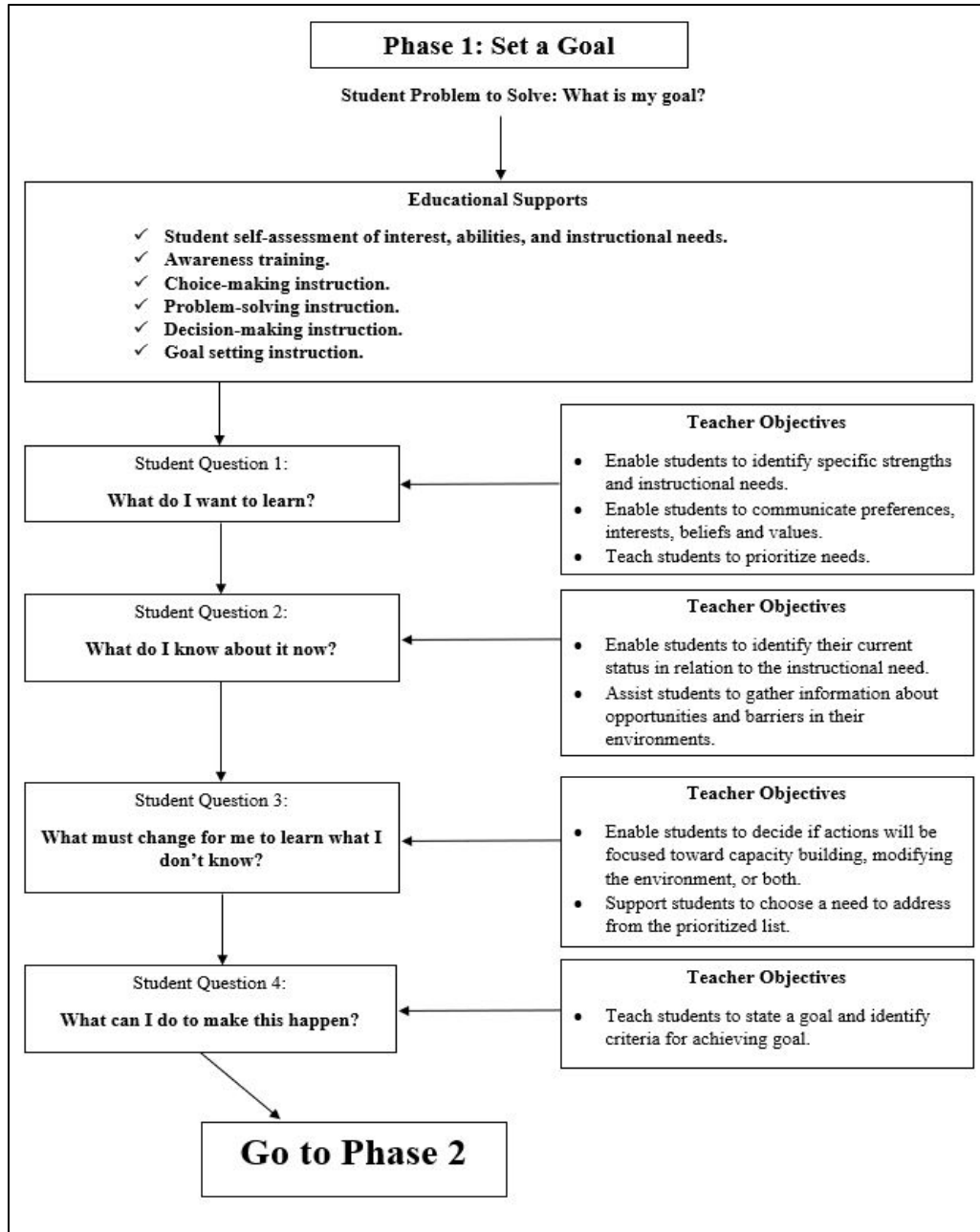
Assessments:

- 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. While the questionnaire is written at a sixth-grade reading level, per the Flesch-Kincaid readability score, it can be adapted for grades 1–5 as necessary. 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:

- The Self-Determined Learning Model of Instruction (SDLMI) consists of three instructional phases and can be integrated into any teaching model. Phase 1 of the SDLMI incorporates many student-directed learning strategies that directly involve students in setting and pursuing goals linked to desired outcomes (Shogren, 2013). Students as young as ages 5–6 with and without disabilities can be taught to set and achieve goals (Palmer & Wehmeyer, 2003). Examples of student goals include: learn to count to 20, improve handwriting by writing numbers neatly, and follow classroom rules during math class. For details on implementing the instructional processes, see the Teacher's Guide (Shogren et al., 2019).

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Phase 1: Set a Goal

Student Problem to Solve: What is my goal?

Educational Supports

- ✓ Student self-assessment of interest, abilities, and instructional needs.
- ✓ Awareness training.
- ✓ Choice-making instruction.
- ✓ Problem-solving instruction.
- ✓ Decision-making instruction.
- ✓ Goal setting instruction.

Student Question 1:

What do I want to learn?

Teacher Objectives

- Enable students to identify specific strengths and instructional needs.
- Enable students to communicate preferences, interests, beliefs and values.
- Teach students to prioritize needs.

Student Question 2:

What do I know about it now?

Teacher Objectives

- Enable students to identify their current status in relation to the instructional need.
- Assist students to gather information about opportunities and barriers in their environments.

Student Question 3:

What must change for me to learn what I don't know?

Teacher Objectives

- Enable students to decide if actions will be focused toward capacity building, modifying the environment, or both.
- Support students to choose a need to address from the prioritized list.

Student Question 4:

What can I do to make this happen?

Teacher Objectives

- Teach students to state a goal and identify criteria for achieving goal.

Go to Phase 2

- Personal Best (PB) goal setting uses a student's past academic best (performance/grade) as a basis for a student's personalized goals for future success. These types of goals allow students to compete with themselves instead of comparing their achievements to others (Martin & Liem, 2010). PB goal setting is "associated with achievement growth in students' academic lives" (Martin & Elliot, 2016). The goal setting process for PB begins with a "specific road map" for goal achievement, though this process often evolves over time (Martin & Green, 2017). Each PB attained will lead to setting the goal for the next PB. Martin and Green (2017) identified the following steps for developing a meaningful/value-driven PB goal:
  - o Step 1: Select the area of life for discussion. In school, education or a particular subject may be the key focus.
  - o Step 2: Identify guiding values by asking questions.

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- o Step 3: Set an outcome and/or process-oriented PB goal that is specific, challenging, and competitively self-referenced, as described in this worksheet.
  - o Step 4: Identify the benefits of achieving this PB goal (always encouraging the student to be mindful of the identified value, purpose, and meaning behind the goal).
  - o Step 5: Plan for or identify the potential difficulties or obstacles that might get in the way of reaching the PB goal and what the student can/will do if this happens.
- Goal setting has been used as an intervention to improve writing performance in middle-elementary students (Hansen & Wills, 2014). When goal setting was combined with teacher feedback and contingent rewards (rewards given upon reaching a goal), students improved their writing fluency and number of words spelled correctly.
- The Transtheoretical Model is a goal setting intervention that views behavior change as an evolving process and uses Stages of Change to help students achieve their goals and modify behaviors (Hallenbeck & Fleming, 2011). Though originally used to help facilitate change primarily in adults with addictive behaviors, this practice proved beneficial when employed in afterschool programs. Students developed goals, monitored behavior changes, and fostered movement toward achieving their goals. Teachers reported improvement in academic achievement and homework completion. The visual model of the Stages of Change has the following steps (Hallenbeck & Fleming, 2011, p. 39) that teachers can use with their students when creating goals:
  1. Precontemplation—just starting to think about changes
  2. Contemplation—thinking about making changes
  3. Preparation—actively preparing to make changes
  4. Action—working to make changes
  5. Maintenance—working to keep on track

  The student goal setting form (Hallenbeck & Fleming, 2011, p. 41) can be used and adapted for elementary students and geared toward academic or behavior goals.
- Several evidence-based instructional strategies have been identified to teach goal setting as part of broader self-regulation instruction (Smith et al., 2015). To learn how to develop value-based goals, children first identify a value that is important to them (e.g., kindness or friendship), then create daily prompts about their goals (such as sticky notes with drawings or descriptions that remind them of their commitment to the goal). Teachers can also create a culture for goal setting by having the students set daily or weekly classroom goals. Posters and bulletin boards in the classroom can help monitor and celebrate goal attainment.
- Turkay (2014) determined that setting goals increases both motivation and achievement. Further, self-set goals increased performance of students with low achievement motivation (Turkay, 2014). Defining the goals clearly makes it easier for students to follow through, as does keeping the goals short-term—even when working toward a future goal (Locke & Latham, 2002). If the instructor can aid the students in finding goals that connect to students' interests, students will be much more likely to commit to and complete the goal. Teacher examples/models also help students determine the steps necessary to create their own goals, as well as show the students that goal setting does aid in achievement (Turkay, 2014). The goal should also challenge the students' abilities (though it needs to be realistically attainable). Different apps and software can aid in determining student ability, such as the following:
  - o Socrative
  - o Learning Catalytics
  - o Nearpod
- In their study on shifting from process to outcome goals, Zimmerman and Kitsantas (1999) found a hierarchy of effectiveness in goal setting methods. Students who could shift between

the two processes far outscored students who utilized only process goals, who in turn surpassed students using only outcome goals. "This multilevel view of skill acquisition provides learners with a hierarchy for setting distinctive goals, self-monitoring progressive mastery, and guiding adaptive decision making" (Zimmerman & Kitsantas, 1999).

- Possible Selves is a future-driven goal setting strategy that asks students to think about a vision of:
  - o Hoped-for selves
  - o Expected selves
  - o Feared selves

Based on those visions, students can develop goals/action plans (Hock et al., 2006). Research shows that students who were trained and participated in the Possible Selves program had high GPAs and a higher rate of graduation.

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