College & Career Competency FRAMEWORK STUDENT ASSESSMENTS

Self-Regulation Assessment Suite
Technical Report

This technical report can be cited as: Gaumer Erickson, A. S. & Noonan, P. M. (2021). *Self-regulation assessment suite: Technical report.* College & Career Competency Framework. http://cccframework.org

Defining Self-Regulation

"Self-regulation is the ability to plan, self-evaluate, and adjust your course of action for improved outcomes" (Noonan & Gaumer Erickson, 2018a, p. 51). To self-regulate, an individual must proactively apply self-directive processes, cognitive behaviors, and emotions to attain goals, learn skills, and manage emotional reactions (Abar & Loken, 2010; Zimmerman & Schunk, 2011). Self-regulated learners are "metacognitively, motivationally, and behaviorally active participants in their own learning process" (Zimmerman, 1986, as cited in Zimmerman, 2008, p. 167). The self-regulation process can be described as making a plan, monitoring that plan, making changes to stay on track, and reflecting on the process and outcome (Gaumer Erickson & Noonan, 2016).

To self-regulate, students must enact a proactive, self-directed process for attaining goals, learning skills, managing emotional reactions, and accomplishing tasks. The Self-Regulation Assessment Suite measures a student's knowledge, perceived level of proficiency, and performance across the four essential components of self-regulation:

1. Plan for and articulate what you want to accomplish.
2. Immediately monitor progress and interference regarding your goal.
3. Adjust by implementing specific strategies when things are not going as planned.
4. Reflect on what worked and what you can do better next time (Noonan & Gaumer Erickson, 2018a).

The Assessment Suite

Self-regulation assessments included in this suite are formative measures designed to guide students' reflection and educators' instruction. The assessments are not intended to provide a summative evaluation. When combined with other data sources, these assessments guide decision-making for direct instruction that builds students' knowledge, for guided practice that develops students' fluency, and for independent practice with ongoing coaching that promotes students' proficiency and generalization. **All assessments are free** for educational professionals to administer if utilizing the results for skill development or program improvement.

Formative Questionnaire. This self-report measure asks students to rate behaviors on a 5-point, Likert-type scale from *Not Very Like Me* to *Very Like Me*. The questionnaire was designed for students in middle and high school. The items on the questionnaire are written at a sixth grade reading level, per the Flesch–Kincaid readability score (Kincaid et al., 1975). The Self-Regulation Formative Questionnaire should not be used as a pre/post measure. As students learn more about self-regulation, their internal frame of reference may shift, causing them to become more critical in their self-assessment; this phenomenon is called response shift bias (Bray et al., 1984; Drennan & Hyde, 2008). Accommodations should be provided when appropriate and may include reading the items aloud, explaining the items, or having a scribe fill in the response option. See Appendix A for Formative Questionnaire items.

The questionnaire can be cited as: Gaumer Erickson, A. S., Monroe, K., Soukup, J., & Noonan, P. M. (2018). Self-regulation formative questionnaire. In P. Noonan & A. Gaumer Erickson. *The skills that matter: Teaching interpersonal and intrapersonal competencies in any classroom* (p. 177–178). Corwin.

Knowledge Test. This curriculum-based measure assesses students' knowledge of self-regulation components and their ability to judge the most effective course of action when applying these concepts. The test includes multiple-choice, yes/no, true/false, situational judgement, and short-answer items. The Self-Regulation Knowledge Test is directly aligned with lessons provided in *Teaching Self-Regulation in Middle and High School Classrooms (2nd ed,* available for purchase at https://nge.selz.com/*)*. The Knowledge Test can be used as a pre/posttest prior to and after teaching the self-regulation lessons. Accommodations should be provided when appropriate and may include reading the items aloud, explaining the items, or having a scribe fill in the response option. See Appendix B for Knowledge Test items.

The test can be cited as: Gaumer Erickson, A. S., Noonan, P. M., Loewenstein, M., & Monroe, K. (2019). Self-regulation knowledge test. In A. Gaumer & P. Noonan. (2022). *Teaching self-regulation: Seventy-five instructional activities to foster independent, proactive students, Grades 6-12.* Solution Tree.

Performance-Based Observation. This assessment is designed to be embedded within authentic situations such as academic courses and extracurricular activities. The Self-Regulation Performance-Based Observation can be used at purposeful intervals to monitor the development of each student. Based on observations across time or in specific situations, the educator rates each student's self-regulatory behaviors on the following scale:

- *Beginning*: Not yet able to demonstrate without scaffolding;
- *Emerging*: Minimal or superficial demonstration, prompting likely required;
- *Proficient*: Sufficient demonstration, including self-appraisal and detailed, personalized application;
- *Advanced*: Independent and consistent demonstration, teaches/prompts others; or
- *Not Observed*: Documented if there has not been the opportunity to observe the behavior performed by an individual student.

See Appendix C for Performance-Based Observation items.

The observation can be cited as: Gaumer Erickson, A. S. & Noonan, P. M. (2018). Self-regulation performance-based observation. In A. Gaumer & P. Noonan. (2022). *Teaching self-regulation: Seventy-five instructional activities to foster independent, proactive students, Grades 6-12.* Solution Tree.

Performance-Based Reflection. This assessment, directly aligned with the Performance-Based Observation, promotes students' reflection on their demonstration of self-regulatory behaviors within authentic situations. This four-item rubric guides students to determine the quality of their planning, monitoring, adjusting, and reflecting related to a specific task or project. Triangulating students' ratings with the performance-based observation results in a more comprehensive analysis of performance. The Self-Regulation Performance-Based Reflection can be used at purposeful intervals to monitor the development of each student. See Appendix D for Performance-Based Reflection items.

The self-assessed reflection can be cited as: Gaumer Erickson, A. S. & Noonan, P. M. (2021). Self-regulation performance-based reflection. In A. Gaumer & P. Noonan. (2022). *Teaching self-regulation: Seventy-five instructional activities to foster independent, proactive students, Grades 6-12.* Solution Tree.

Administering the Formative Questionnaire and Knowledge Test

Teachers can simultaneously launch the Self-Regulation Formative Questionnaire and Knowledge Test by visiting https://www.cccstudent.org, creating a free account, and following the instructions provided on the website. Through this website, which is free and available to all educators, these assessments have been combined to ease administration, together requiring less than 20 minutes for students to complete. Once students have completed the assessments, teachers can view graphed results for individual students as well as aggregate results for all their students. Teachers can also download a raw data file.

Teachers distribute the assessments to students by providing the URL (https://www.cccstudent.org/) and a unique survey code; the survey code is provided on the website when a survey is added to the teacher's portfolio. Once on the website, student select *Take a Survey* and enter the code. They do not log into the website. The assessment results are automatically generated for each student and available to him/her once all items are answered. This enables each student to reflect on results immediately.

Directions to Students. Explain to students that they will each take the questionnaire and the knowledge test. Results will help them better understand how they self-regulate right now, determine their knowledge of self-regulation concepts, and promote reflection on their ability to identify how best to apply self-regulation in specific situations. Inform students that this test will not be used as a grade, but you want them to be reflective and honest because they will use the information to think about their strengths and areas for growth.

Provide students with the URL (https://www.cccstudent.org) and code. Once on the website, students select *Take a Survey* on the top left and enter the code. Remind students to enter their student-specific number (e.g., school ID or assign each student a number). This number will allow you, as the teacher, to view their individual results.

Tell students that for items 1–28, as they read each item, they should pause for a moment to think about the last couple of months and how well they were able to self-regulate in various situations to work toward or accomplish tasks. For instance, they might consider how often they submitted course assignments on time, how they planned out and completed assigned projects over time, or how well they accomplished personal goals like saving money or improving in a sport.
Here are some example items from the survey:

- I plan out projects that I want to complete.
- I keep track of how my projects are going.
- As soon as I see things aren't going right, I want to do something about it.
- I think about how well I've done in the past when I set new goals.

Tell students that items 29–49 test knowledge of self-regulation concepts and potential ways to effectively self-regulate in certain situations. Be sure to remind students that, after finishing the test, they should stay on the results page to record their results. Give students adequate time to complete the assessment (approximately 15–20 minutes).

Prompt students to write down their self-assessment scores from the graph on the results page. The scores are on a 100-point scale, so that they can be interpreted as percentages. If a student received a score of 75 on Component 1, that is similar to a 75% on that component.

In addition to the composite scores, each item is displayed with the associated component and student's rating. Have students list the components from highest to lowest using their scores. If two scores are the same, students can choose which component they feel is stronger for them. Then, for the top two components, have students identify a questionnaire item that is a strength. For the lowest two components, have students identify a questionnaire item that is an area for improvement.

Finally, have students write down their knowledge score. This score is at the end of the report. Additional instructions for facilitating students' reflection and using the Self-Regulation Formative Questionnaire and the Knowledge Test results are provided in *Teaching Self-Regulation in Middle and High School Classrooms (2nd ed)*, available for purchase at https://nge.selz.com/.

Scoring the Essay Item. Log into your account on https://www.cccstudent.org. In My Portfolio, click on the name of the assessment. The table provides the option to score each student's response to the essay question: *Imagine that you are struggling to learn a concept in math. Provide brief descriptions of how you would address the first two components of self-regulation to work toward improving your learning.* Assign points on a scale of 0–3, giving a point for each distinct action directly related to self-regulation.

Using the Results. Results by component (i.e., plan, monitor, adjust, reflect) support reflection on relative strengths and areas for improvement. Students can use the questionnaire results to gain an understanding of the various elements necessary for self-regulation. They can reflect on their individual results to improve self-regulatory behaviors that they, based on their own reporting, have identified as areas for growth. Students can also discuss self-regulation with others and begin to apply this knowledge to their own experiences.

By determining the areas of the self-regulation to pinpoint, teachers can enhance their instructional practices through targeted instruction (see *Teaching Self-Regulation in Middle and High School Classrooms*). After facilitating continual guided and independent practice with feedback, teachers can readminister the Self-Regulation Formative Questionnaire and the Self-Regulation Knowledge Test, and based on the results, alter instruction to further bolster students' self-regulation knowledge and skills. It is expected that after instruction, students' scores will increase on the knowledge portion of the assessment; the self-report questionnaire portion is not designed as a pre/post measure but instead to promote ongoing reflection of relative strengths and areas for growth. The data allow teachers to engage in data-driven decision-making to increase their students' fundamental abilities to plan what they want to accomplish, monitor their own progress, adjust their plans as needed, and reflect on progress toward their goals and the actions that helped them make that progress.

Administering the Performance-Based Observation & Reflection

The Self-Regulation Performance-Based Observation is purposefully planned and administered at key intervals during the school year. Teachers must first select the performance-based indicator(s) to measure, then create conditions in which students have opportunities to demonstrate the specific self-regulation behaviors. *Teaching Self-Regulation in Middle and High School Classrooms (2nd ed;* https://nge.selz.com) provides numerous curriculum-based activities that lend themselves to performance-based observations.

Indicators can be identified schoolwide to be measured on a quarterly basis by every educator or across core courses. Alternatively, indicators most aligned to classroom routines or projects can be selected by each educator. To further promote student reflection, each student can rate his/her proficiency on the self-regulation indicator(s) related to the specific context (e.g., course or activity). Teachers can then compare these self-ratings to observed behaviors, lending strength to the ratings or determining inaccuracies in knowledge or fluency.

Using the Results. Results support students' reflection on relative strengths and areas for improvement. Educators use the results to reflect on whole class instruction (including guided practice, coaching, and constructive feedback) necessary for students to become proficient in a given indicator. When reviewing the results for individual students, instructional support may be necessary to augment the learning and practice, focusing on growth toward proficiency in the indicator(s).

Permission to Use the Assessments

Gaumer Erickson, A. S. & Noonan, P. M. (2021). *Self-regulation assessment suite: Technical report.* College & Career Competency Framework. http://cccframework.org

Reliability and Validity

Reliability. The Self-Regulation Formative Questionnaire was initially tested for reliability using Cronbach's coefficient alpha with 1,354 responses from middle school and high school students in 2015 (28 items; α = .889). Exploratory factor analysis (EFA) was performed to test the concept homogeneity, revealing that the questionnaire measured a single factor, referred to as self-regulation. Revisions were made to shorten the questionnaire while maintaining acceptable internal consistency. The 22-item Self-Regulation Formative Questionnaire was tested for reliability using Cronbach's coefficient alpha. Demographic data of grade and gender were added to the questionnaire in fall 2017. Of the 12,882 responses that were completed between August 2017 and March 2019, 6,057 (47%) were female, 6,055 (47%) were male, and 770 (6%) did not report gender. The dataset includes 1,162 responses from sixth-grade students; 2,067 from seventh grade; 1,605 from eighth grade; 1,980 from ninth grade; 1,524 from 10th grade; 1,407 from 11th grade; 1,528 from 12th grade; and 1,609 post-high school. The overall Self-Regulation Formative Questionnaire was found to be highly reliable (22 items; α = .894), and factor analyses supported the scale as measuring a single construct. Internal consistency above α = .86 was maintained for grade level and gender subgroup analyses. When converted to a 100-point scale, the bottom quartile ranged from 20 to 64, and the top quartile ranged from 81 to 100. To guide students' reflection, items are loosely grouped into four categories representing the self-regulation process.

The Self-Regulation Knowledge Test was tested for reliability using Cronbach's coefficient alpha with 345 students in grades 9–12. The analysis showed that Item 9 did not support the construct; post-deletion reliability estimates were acceptable (19 items; α = .81).

The Self-Regulation Performance-Based Observation and Reflection have not yet been tested for reliability.

Content Validity. Construction of the measures began in 2015 after a thorough review of literature on self-regulation, including the related terms of self-management, executive functioning, goal-directed action, agency, and time management. Abbreviated literature reviews (elementary and secondary research guides) were developed and are available at http://cccframework.org/resources.html. Existing measures, including the Motivated Strategies for Learning Questionnaire (Pintrich et al., 1993), Self-Regulated Learning Interview Schedule (Zimmerman & Martinez-Pons, 1988), Arc's Self-Determination Scale (Wehmeyer & Kelchner, 1995), and the Self-Regulation Strategy Inventory (Cleary, 2006) were reviewed by a team of researchers. Items were constructed and categorized into the four research-based aspects of self-regulation. Three educational professionals with doctorates in education and one licensed clinical social worker specializing in adolescent social-emotional development reviewed the items. Revisions were made to enhance research alignment, response specificity, and applicability to adolescents.

Substantive Validity. The questionnaire items were tested in 2015 with eight adolescents using a think-aloud format where the adolescents verbalized their thought processes for answering the items. These students also identified items that were confusing or may have varied interpretations. Revisions were made to enhance response specificity and applicability to adolescents. Beta testing was conducted in 2015 with 1,354 students in conjunction with a professional learning process for educators. After launching the questionnaire, these teachers guided students through a reflection process on the results. The teachers then provided feedback to the researchers regarding students' depth of reflection and usefulness of the results.

The Knowledge Test items underwent a similar process with initial testing using a think-aloud format with three adolescents. Prior to public release, beta testing was conducted with 150 students in one school. A focus group with educators at this school determined the perceived accuracy of results among students and educators. These teachers also identified specific instructional activities they could undertake to enhance the skills of students

related to specific knowledge items. This action-oriented reflection is a primary purpose of the formative assessments.

Structural Validity. Factor analyses with scree plots of both the questionnaire and knowledge test were conducted to examine the correlations among items. Both measures were determined to assess a single construct. All but two items on the knowledge test were strong predictors of overall performance (i.e., high-performing students performed better at the individual item level). Items 2 and 3 discriminated negatively.

Generalizability Validity. While assessed through different methods, all measures in this suite evaluate the construct of self-regulation. The Self-Regulation Formative Questionnaire focuses on self-reported behaviors while the Self-Regulation Knowledge Test assesses comprehension of core constructs. Correlations between these measures are acceptable (0.36), as determined for a sample of 345 students in Grades 9–12. Generalizability validity data will be collected and analyzed regarding the performance-based observation and reflection.

Fairness. Demographic data collected through the questionnaire and knowledge test include gender and grade level. Overall, females report higher self-regulatory behaviors than males. Females also score higher on the knowledge test than males. Statistically significant, but not functionally significant effect-size differences were found across grade levels. No significant differences were found among schools based on free and reduced lunch rates, diversity levels, or urbanicity classifications. Race, ethnicity, and poverty differences at the individual student level have not been tested as these demographics are not collected through the assessments.

Consequential Validity. Grade point average as an indicator of course performance has been described in the research as a key outcome variable associated with self-regulation (Dignath et al., 2008; Nota et al., 2004; Ursache et al., 2012; Zimmerman, 2008). Three studies were conducted in 2019–2021 in which the Self-Regulation Questionnaire and Knowledge Test results were analyzed as predictive of grade point average (GPA) for high school students (Gaumer Erickson, Noonan, & Brussow, 2021). Study 1, conducted with 345 students in a high school with an 88% White population, found that when used as a predictive variable for Fall 2019, Quarter 1, GPA, the composite questionnaire score predicted 24% of the variance in GPA (significant at the .001 confidence level); the composite knowledge test score predicted 11% of the variance in GPA (significant at the .001 confidence level); and a combination of the questionnaire and knowledge test predicted 28% of the variance in end-of-quarter GPA (significant at the .001 confidence level). Study 2, conducted with 192 students in a high school with an 86% Hispanic population, found that when used as a predictive variable for Fall 2020 semester GPA, the composite questionnaire score predicted 15% of the variance in GPA (significant at the .001 confidence level); the composite knowledge test score predicted 4% of the variance in GPA (significant at the .01 confidence level); and a combination of the questionnaire and knowledge test predicted 19% of the variance in end-of-semester GPA (significant at the .001 confidence level). Study 3, conducted with 726 students in a high school with an 68% Hispanic and 22% White population, found that when used as a predictive variable for cumulative GPA, the composite questionnaire score predicted 12% of the variance in GPA (significant at the .001 confidence level); the composite knowledge test score predicted 7% of the variance in GPA (significant at the .001 confidence level); and a combination of the questionnaire and knowledge test predicted 17% of the variance in cumulative GPA (significant at the .001 confidence level).

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Appendix A: Self-Regulation Formative Questionnaire Items

Each item is rated on a Likert-type scale from 1 (*Not Very Like Me*) to 5 (*Very Like Me*). Items that are framed negatively, and therefore reverse scored, are designated with "N." Items in green are included with the Knowledge Test but not when only the Questionnaire is given.

1. I plan out projects that I want to complete. (Plan)
2. If an important test is coming up, I create a study plan. (Plan)
3. Before I do something fun, I consider all the things that I need to get done. (Plan)
4. I can usually estimate how much time my homework will take to complete. (Plan)
5. It is hard for me to get started on a big assignment. (Plan; N)
6. I have trouble making plans to help me reach my goals. (Plan; N)
7. I keep track of how my projects are going. (Monitor)
8. I know when I'm behind on a project. (Monitor)
9. I track my progress for reaching my goal. (Monitor)
10. I know what my grades are at any given time. (Monitor)
11. Daily, I identify things I need to get done and track what gets done. (Monitor)
12. I often lose track of time. (Monitor; N)
13. I have trouble remembering all the things I need to accomplish. (Monitor; N)
14. I do what it takes to get my homework done on time. (Adjust)
15. I make choices to help me succeed, even when they aren't the most fun right now. (Adjust)
16. As soon as I see things aren't going right, I want to do something about it. (Adjust)
17. I keep trying as many different possibilities as necessary to succeed. (Adjust)
18. When I want something expensive, I cut down on buying small things to save money for it. (Adjust)
19. My friends can talk me into things that I later regret. (Adjust)
20. I have difficulty maintaining my focus on projects that take a long time to complete. (Adjust; N)
21. When I get behind on my work, I often give up. (Adjust; N)
22. I think about how well I'm doing on my assignments. (Reflect)
23. I feel a sense of accomplishment when I get everything done on time. (Reflect)
24. I think about how well I've done in the past when I set new goals. (Reflect)
25. When I'm criticized, I consider what I could have done differently. (Reflect)
26. When I fail at something, I try to learn from my mistake. (Reflect)
27. When I've been struggling with something, I don't want to think about it. (Reflect; N)
28. I keep making the same mistake over and over again. (Reflect; N)

Appendix B: Self-Regulation Knowledge Test Items

Each item is scored as correct or incorrect; see the section outlining administering the formative assessment and knowledge test for directions, including automatic scoring through http://ResearchCollaborationSurveys.org.

29. Choose the best description of self-regulation.
    a. When you make progress toward reaching a goal, learning a skill, or accomplishing a task.
    b. When you follow your teacher's detailed directions (including making changes as suggested by your teacher and reflecting on your progress) for reaching a goal, learning a skill, or accomplishing a task.
    c. When you proactively use a process (e.g., planning, monitoring the plan, making changes as needed, and reflecting) to reach a goal, learn a skill, or accomplish a task.
    d. When you proactively plan for how to reach a goal, learn a skill, or accomplish a task.

Decide if each of the scenarios describes at least one component of self-regulation.

Scenario	Is it self-regulation?
30. After school, your parent takes your phone and says you'll get it back when your homework is done.	Yes No
31. You want to improve your grade in English, so you check your grade every Friday to see if it has gotten better.	Yes No
32. You write down the homework that you need to complete and check it off your list as you finish it, making sure to finish each assignment.	Yes No
33. You were working on your math assignment and came to a problem that you didn't know how to solve. You texted your friend for help, but he hasn't responded, so you leave the answer blank.	Yes No

34. Which of these things is NOT likely to be a result of improving your self-regulation?
    a. Improved time management and organization
    b. Increased ability to reach goals without encountering any barriers
    c. Increased ability to recognize and address your own mistakes
    d. Increased control of your learning and academic success
35. Identify the best example of using the self-regulation process to address problems with being late to school.
    a. Deciding that now that you're aware of the issue, you won't have trouble tomorrow—you know you just need to get up with the alarm, instead of hitting snooze or turning it off; then you won't be late.
    b. Considering possible reasons for your tardiness (e.g., staying up too late, not gathering supplies until morning) and making a plan to address those things, including how to see if you're making progress.
    c. Setting an extra alarm tomorrow to make it more likely that you will get up on time; that should eliminate the problem.
    d. Telling a parent/guardian about the problem and asking for help to get you to school on time.

Identify which self-regulation component (plan, monitor, make changes, reflect) each behavior addresses:

Behavior	Component
36. Each day, crossing tasks off a to-do list as you finish them.	Plan Monitor Make Changes Reflect
37. Recognizing when something isn't working and immediately adjusting your actions to get back on track.	Plan Monitor Make Changes Reflect
38. Thinking each day about successes, setbacks, and specific things you've learned.	Plan Monitor Make Changes Reflect
39. Breaking down big goals into smaller pieces.	Plan Monitor Make Changes Reflect
40. After encountering setbacks, looking for solutions and trying as many as needed.	Plan Monitor Make Changes Reflect
41. Thinking about your past efforts when setting new goals.	Plan Monitor Make Changes Reflect
42. Using specific ways to track your progress.	Plan Monitor Make Changes Reflect

43. Which of these actions does not specifically address a self-regulation component?
    a. Having specific methods in mind for how you will measure your progress as you work towards a goal.
    b. Knowing when you are behind on a task and figuring out the best steps to take to get back on track.
    c. Checking your grades every week to see how teachers have graded your performance on assignments, projects, and tests.
    d. Creating a study plan for important tests or a timeline of tasks/steps for long-term projects.
44. Which of these would you **NOT** use to monitor progress on your self-regulation plan?
    a. A comparison of your progress to your friend's progress on the same project/assignment.
    b. A rubric to compare with your work to see if you are meeting the criteria.
    c. A journal where you describe daily progress and identify if you are on-track with on your plan.
    d. A graph showing your progress over time.
45. You are told to write an essay, due in 3 weeks. The last time you had a task like this, you didn't write it until the night before. Your grade wasn't very good, and you want to do better. Using what you've learned, choose the **best option**.
    a. Break the assignment down into the basic parts (e.g., choose a topic, outline the essay, write the essay, etc.), and estimate how much time each part takes. Work backwards to identify deadlines for each part. Afterward, reflect on the quality of your work.
    b. Talk about the project with your friend Beth, who is great at planning how to space out work. Ask her what her timeline is for accomplishing the project, and make that your timeline, too. After you finish, reflect on how well you did.
    c. See your teacher to discuss your difficulties with this type of assignment and ask what you should do differently this time. Follow the teacher's plan and timeline to complete each part of the assignment, getting back on track when necessary.
    d. Break the assignment down into the basic parts and make a plan for each part. Note specific tasks and their deadlines. Check off tasks as completed. If behind, figure out how to get back on track. During and after, consider what works and what could be improved.

True or False

46. ___ Self-regulation is important for academics, but it doesn't really help improve athletic or musical ability.
47. ___ Building your self-regulation skills can also help improve your goal setting abilities.
48. ___ Using self-regulation can help you resist distractions.

Open Ended

49. Imagine that you are struggling to learn a concept in math. Provide brief descriptions of how you would address the first two components of self-regulation to work towards improving your learning.
    - Plan:
    - Monitor:

Appendix C: Self-Regulation Performance-Based Observation Items

Based on observations across time or in specific situations, the educator rates each student's self-regulatory behaviors on 4-point scale. This assessment can be used at purposeful intervals to monitor the development of each student.

Based on observations across time or in specific situations, evaluate each student's performance.

Beginning: Not yet able to demonstrate without scaffolding.
Emerging: Minimal or superficial demonstration; prompting likely required.
Proficient: Sufficient demonstration including self-appraisal and detailed, personalized application.
Advanced: Independent and consistent demonstration; teaches/prompts others.
Not observed is documented if there has not been the opportunity to observe the behavior performed by an individual student.

Self-Regulation Sequence Indicators	**Beginning**	**Emerging**	**Proficient**	**Advanced**	**Not Observed**
1. Demonstrates the ability to create a plan to accomplish a task or set of tasks.					
2. Identifies potential barriers to plan completion using if–then statements.					
3. Monitors progress of efforts over time.					
4. Plans and practices ignoring some distractions during a task, resulting in increased focus.					
5. Reflects on strengths, challenges, effort, and outcomes related to self-regulation in specific situations.					

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Appendix D: Self-Regulation Performance-Based Reflection Items

For specific projects, assignments, or preparation (e.g., studying for a test, enhancing performance in a sport), students reflect on their self-regulatory behaviors by rating their performance on a 3-point scale. This assessment can be used at purposeful intervals to monitor the development of each student.

For the task of _____, rate your self-regulation.

Component	Limited Self-Regulation	Moderate Self-Regulation	Substantial/Thoughtful Self-Regulation
Planning	I didn't do much planning. I may have thought about it a little.	I thought about what I needed to do to accomplish this. I may have written down a little.	I planned this out with the details I needed to accomplish it. I thought about my past efforts to make a plan that would work well for me.
Monitoring	I didn't do much to track my progress. I may have thought about it a little.	Occasionally, I thought about my progress to accomplishing the task and the effort I put into it. Other people may have reminded me to monitor my progress.	I monitored along the way, making sure I was on track to accomplish it and thinking through the effort I put into it.
Adjusting	I didn't really adjust my plan even when I should have.	I thought through some of the things that were getting in my way when I got off track.	I adjusted as needed to stay on track or modified my plan to accomplish this. I thought about what was getting in my way when I got off track and made changes.
Reflecting	I didn't reflect throughout the process. I may have reflected a little at the end.	Occasionally, I reflected on my effort and my progress. I may have reflected on my learning.	I reflected throughout the process on my effort, my progress, and my learning.

Apéndice A: Elementos del cuestionario formativo de autorregulación

Cada elemento se clasifica en una escala tipo Likert de 1 (*Para nada igual a mí*) a 5 (*Muy igual a mí*).

1. Planeo los proyectos que quiero completar.
2. Si una prueba importante se acerca, creo un plan del estudio.
3. Antes de hacer algo divertido, considero todas las cosas que debo hacer.
4. Por lo general, puedo calcular cuánto tiempo me tomará completar mi tarea.
5. Tengo problemas para hacer planes que me ayuden a alcanzar mis metas.
6. Hago un seguimiento de cómo van mis proyectos.
7. Sé cuando estoy atrasado en un proyecto.
8. Hago un seguimiento de mi progreso para alcanzar mi objetivo.
9. Sé cuáles son mis calificaciones en cualquier momento dado.
10. A diario, identifico las cosas que debo hacer y registro lo que está hecho.
11. Tengo problemas para recordar todas las cosas que necesito lograr.
12. Hago lo que se necesita para hacer mi tarea a tiempo.
13. Tomo decisiones para ayudarme a tener éxito, incluso cuando no son las más divertidas en este momento.
14. Tan pronto como veo que las cosas no van bien, quiero hacer algo al respecto.
15. Sigo probando todas las opciones diferentes necesarias para tener éxito.
16. Tengo dificultades para mantener mi enfoque en proyectos que tardan mucho tiempo en completarse.
17. Cuando me atraso en mi trabajo, con frecuencia me doy por vencido.
18. Pienso en lo bien que estoy haciendo en mis asignaciones.
19. Tengo un sentido de logro cuando hago todo a tiempo.
20. Pienso en cuán bien me ha ido en el pasado cuando fijé nuevos objetivos.
21. Cuando falla algo, trato de aprender de mi error.
22. Sigo cometiendo el mismo error una y otra vez.

Apéndice B: Elementos de la prueba de conocimiento de autorregulación

Cada elemento se puntúa como correcto o incorrecto; consulte la sección que describe cómo administrar la evaluación formativa y la prueba de conocimiento para ver instrucciones, incluyendo la puntuación automática en http://ResearchCollaborationSurveys.org.

1. Elija la mejor descripción de autorregulación.
   a. Cuando avanza hacia un objetivo, aprender una habilidad o completar una tarea.
   b. Cuando sigue instrucciones detalladas de su maestro (incluyendo hacer cambios según lo sugerido por su maestro y reflexionar sobre su progreso) para alcanzar una meta, aprender una habilidad o completar una tarea.
   c. Cuando utiliza un proceso (p. ej., planificar, controlar un plan, hacer cambios según sea necesario y reflexionar) para alcanzar un objetivo, aprender una habilidad o completar una tarea.
   d. Cuando planifica proactivamente cómo alcanzar un objetivo, aprender una habilidad o completar una tarea.

Decida si cada uno de los escenarios describe al menos un componente de la autorregulación.

Escenario	¿Es autorregulación?
2. Después de la escuela, su padre le quita el teléfono y dice que lo recuperará cuando termine su tarea.	Sí No
3. Usted desea mejorar su calificación en inglés, así que revisa sus calificaciones cada viernes para ver si ha mejorado.	Sí No
4. Usted anota la tarea que quiere completar y la borra de su lista cuando la termina, para asegurarse de completar cada asignación.	Sí No
5. Estaba trabajando en su tarea de matemáticas y llegó a un problema que no sabía resolver. Le envió mensajes de texto a su amigo para que le ayudara, pero él no ha respondido, así que deja la respuesta en blanco.	Sí No

6. ¿Cuál de estas cosas es probable que **NO** sea el resultado de mejorar su autorregulación?
   a. Mejor manejo del tiempo y organización.
   b. Mayor capacidad para alcanzar objetivos sin encontrar barreras.
   c. Mayor capacidad para reconocer y abordar sus propios errores.
   d. Mayor control de su aprendizaje y éxito académico.
7. Identifique el mejor ejemplo de usar el proceso de autorregulación para abordar el problema de llegar tarde a la escuela.
   a. Decidir que ahora que es consciente del problema, ya no lo tendrá mañana; sabe que solo debe levantarse con la alarma, en lugar de dejarla sonar o apagarla; entonces, no llegará tarde.
   b. Tener en cuenta las posibles razones de su retraso (por ejemplo, acostarse demasiado tarde, no recoger lo que necesita hasta la mañana) y elaborar un plan para abordar esas cosas, incluyendo cómo ver si está progresando.
   c. Establecer una alarma adicional mañana para que sea más probable que se levante a tiempo; eso debería eliminar el problema.
   d. Decir a un padre/tutor sobre el problema y pedir ayuda para llegar a la escuela a tiempo.

Identifique qué componente de la autorregulación (**planificar**, **controlar**, **hacer cambios**, **reflexionar**)aborda cada comportamiento:

Comportamiento	Componente
8. Tachar tareas de una lista de cosas para hacer cada día a medida que las completa.	Planificar Controlar Hacer cambios Reflexionar
9. Reconocer cuándo algo no funciona y ajustar inmediatamente sus acciones para volver a ponerse en marcha.	Planificar Controlar Hacer cambios Reflexionar
10. Pensar cada día en éxitos, contratiempos y cosas específicas que ha aprendido.	Planificar Controlar Hacer cambios Reflexionar
11. Desglosar los objetivos grandes en trozos más pequeños.	Planificar Controlar Hacer cambios Reflexionar

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12. Después de encontrar contratiempos, buscar soluciones y probar todas las que sean necesarias.	Planificar	Controlar	Hacer cambios	Reflexionar
13. Pensar en sus esfuerzos del pasado al establecer nuevas metas.	Planificar	Controlar	Hacer cambios	Reflexionar
14. Usar formas específicas para hacer seguimiento de su progreso.	Planificar	Controlar	Hacer cambios	Reflexionar

15. ¿Cuál de estas acciones no aborda específicamente un componente de la autorregulación?
    a. Tener métodos específicos en mente para medir su progreso a medida que avanza hacia su objetivo.
    b. Saber cuándo está atrasado en una tarea y pensar en los mejores pasos para ponerse al día.
    c. Revisar sus calificaciones cada semana para ver cómo los maestros han calificado su desempeño en tareas, proyectos y exámenes.
    d. Crear un plan de estudio para pruebas importantes o un calendario de tareas/pasos para proyectos a largo plazo.
16. ¿Cuál de estas opciones **NO** utilizaría para controlar el progreso de su plan de autorregulación?
    a. Una comparación de su progreso con el progreso de su amigo en el mismo proyecto/asignación.
    b. Una matriz de valoración para comparar con su trabajo y ver si cumple con los criterios.
    c. Un diario donde describe el progreso diario e identifica si está encaminado en su plan.
    d. Un gráfico que muestra su progreso a lo largo del tiempo.
17. Se le dice que escriba un ensayo, que debe presentarse en 3 semanas. La última vez que tuvo una tarea como esta, no la escribió hasta la noche anterior. Su calificación no fue muy buena, y quiere hacerlo mejor. Con lo que ha aprendido, elija la **mejor opción**.
    a. Divida la asignación en las partes básicas (por ejemplo, elija un tema, esboce el ensayo, escriba el ensayo, etc.), y estime cuánto tiempo toma cada parte. Trabaje hacia atrás para identificar los plazos para cada parte. Después, reflexione sobre la calidad de su trabajo.
    b. Hable sobre el proyecto con su amiga Beth, que es genial en la planificación de cómo espaciar el trabajo. Pregúntele cuál es su línea de tiempo para lograr el proyecto y haga una línea de tiempo para usted. Después de terminar, reflexione sobre cómo le fue.
    c. Hable con su maestro para analizar sus dificultades con este tipo de asignación y pregúntele qué puede hacer de forma diferente esta vez. Siga el plan y la línea de tiempo del maestro para completar cada parte de la tarea, poniéndose al día cuando sea necesario.
    d. Divida la asignación en las partes básicas y haga un plan para cada parte. Anote las tareas específicas y sus plazos. Marque las tareas como completadas. Si se atrasa, averigüe cómo ponerse al día. Durante y después, considere lo que funciona y lo que podría mejorar.

Verdadero o falso

18. ___ La autorregulación es importante para el ámbito académico, pero en realidad no ayuda a mejorar la capacidad atlética o musical.
19. ___ Desarrollar sus habilidades de autorregulación también puede ayudar a mejorar sus habilidades de fijación de metas.
20. ___ Usar la autorregulación puede ayudarle a resistirse a las distracciones.

Abierta

21. Imagine que tiene problemas para aprender un concepto en matemáticas. Describa brevemente cómo abordaría los dos primeros componentes de la autorregulación para trabajar hacia la mejora de su aprendizaje.
    - Planificar:
    - Controlar:

Apéndice D: Elementos de reflexión basados en el desempeño de la autorregulación

Para proyectos específicos, tareas o preparación (por ejemplo, estudiar para una prueba, mejorar el desempeño en un deporte), los estudiantes reflexionan sobre sus comportamientos de autorregulación al evaluar su desempeño en una escala de 3 puntos. Esta evaluación se puede utilizar a intervalos determinados para supervisar el desempeño de cada estudiante.

Para la tarea de _____ , califique su autorregulación.

Componente	**Autorregulación limitada**	**Autorregulación moderada**	**Autorregulación sustancial/reflexiva**
Planificar	No planifiqué mucho. Puede que lo haya pensado un poco.	Pensé en lo que necesitaba hacer para lograr esto. Puede que haya escrito un poco.	Planifiqué esto con los detalles que necesitaba para lograrlo. Pensé en mis esfuerzos del pasado para hacer un plan que funcionaría bien para mí.
Control	No registré mucho mi progreso. Puede que lo haya pensado un poco.	De vez en cuando, pensé en mi progreso para lograr la tarea y el esfuerzo que puse en ella. Es posible que otras personas me hayan recordado que controlara mi progreso.	Controlé a lo largo del proceso, asegurándome de estar encaminado para lograrlo y pensando en el esfuerzo invertido.
Ajuste	Realmente no ajusté mi plan incluso cuando debería hacerlo.	Pensé en algunas de las cosas que estaban en mi camino cuando me descarrilé.	Me ajusté lo necesario para mantenerme encaminado o modifiqué mi plan para lograrlo. Pensé en lo que se estaba poniendo en mi camino cuando me descarrilé e hice cambios.
Reflexión	No reflexioné a lo largo del proceso. Puede que al final haya reflexionado un poco	Reflexioné en ocasiones sobre mi esfuerzo y mi progreso. Puede que haya reflexionado sobre mi aprendizaje.	Durante todo el proceso reflexioné sobre mi esfuerzo, mi progreso y mi aprendizaje.