

# The Responsive Environment Assessment for Classroom Teaching

## Broad Strategies by REACT Category

## POSITIVE REINFORCEMENT

*Increase the use of highly specific and frequent praise **for appropriate academic and social behavior**. Find ways to verbally praise students for things you want to happen in class. Focus intently on student controlled factors (e.g. effort) over uncontrollable factors (e.g. ability).*

– **Specific examples of praise:**

- Excellent work getting into your seat before the bell rang today. You came in, turned in your work, and began your work without getting too distracted by anybody else.
- Great job working with your group today, you looked at other members of the group as they were speaking and you connected your own ideas to what others had already said.
- You obviously worked hard on this assignment, on this page you have all the headings in your lab report correctly labeled and your description is very clear.

*Given satisfactory or above average student performance on a task, offer an **unexpected** reward that **you know to be reinforcing** for your classroom. Here it is important **not** to inform students of the possibility of the reward until it is given. Avoid giving rewards simply for completion of activities.*

- **Specific example:**

- You have set a goal for all of your students to reach 80% or above on a classroom assignment (or test). After grading the assignment, you find that all of your students met this goal or better. When the students arrive in class the following day, you give them all a reward (e.g. free reading time, computer lab, etc.) that you know they enjoy and you tell them why the reward was given. The students did not know they would receive this reward for scoring well.

***NOTE:** The examples provided here are not intended to be prescriptive, but should illustrate how **you might apply this strategy in your own classroom.***

- Lewis, T. J., Hudson, S., Richter, M. and Johnson, N. (2004). Scientifically supported practices in emotional and behavioral disorders: A proposed approach and brief review of current practices. *Behavioral Disorders*, 29, 247–259
- Suldo, S.M., Friedrich, A.A., White, T., Farmer, J., Minch, D., Michalowski, J. (2009).; Teacher support and adolescents' subjective well-being: A mixed-methods investigation. *School Psychology Review*, 38(1), 67-85.
- Cameron, J. & Pierce, W.D. (1994). Reinforcement, reward, and intrinsic motivation: A meta-analysis. *Review of Educational Research*, 64(3), 363-423. doi: 10.3102/00346543064003363
- Brophy, J. E. (1980). *Teacher praise: A functional analysis*. East Lansing: Institute for Research on Teaching, Michigan State University.
- Cameron, J. & Pierce, D.W. (1994). Reinforcement, reward, and intrinsic motivation: A meta-analysis. *Review of Educational Research*, 64(3), 363-423. DOI: 10.3102/00346543064003363

## FORMATIVE FEEDBACK

Increase the use of goal-connected feedback that students can apply directly to their work in class. Providing formative feedback typically requires two parts:

1. Before assigning a task, worksheet, or problem, **communicate to students what the goal of the assignment is**. Make this a task goal (do not use “score at least 8/10”). In addition, explicitly state that mistakes are acceptable, but that **effort** is critical for progress toward the goal.
2. When providing feedback **refer back to the task goal** and provide information regarding the students’ progress toward that goal **and** what they can do to continue to make progress toward that goal.

“This page of your lab report contains all of the necessary components and your description of the methodology is clear. But, remember the ultimate goal of the lab report is that *anybody* could read this report, understand what you did, and replicate what you did. As we discussed earlier, it is often necessary to separate and label each section of the report. Please provide these labels.”

“Recall the steps for multiplying mixed fractions we discussed in class. You need to convert the mixed number to an improper fraction before multiplying these fractions. Go back and check the rest of the problems as well.”

Note that both of the above scenarios **do not** involve assigning a grade. **This means that the feedback was given during students’ work time (coming to check work during group or individual work) or in place of immediately assigning a grade.** The student should know that erring is acceptable, as long as they continue to put in effort toward achieving the goal of any particular task.

**NOTE:** The examples provided here are not intended to be prescriptive, but should illustrate how **you might apply this strategy in your own classroom**

Ames, C. & Archer, J. (1988) Achievement goals in the classroom: Students’ learning strategies and motivation processes. *Journal of Educational Psychology*, 80(3), 260-267.

Kluger, A.N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119(2), 254-284. doi:10.1037/0033-2909.119.2.254

Hattie, J. (2009), *Visible Learning: A synthesis of over 800 meta-analyses relating to achievement*. Oxon: Routledge.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112. doi: 10.3102/003465430298487

## INSTRUCTIONAL PRESENTATION

*Teach strategies for organization that promote thought around student work. Inform the students why these strategies are important (e.g. facilitate problem solving, forces students to think about material in novel ways relative to traditional memorization).*

- Have students make an outline for an assignment or paper
- Require students to summarize or paraphrase material in class
- Ask students to think about how they would “teach” material from a lesson you have recently completed in class.
  - “We just finished chapter 3, what was important in this chapter? If someone missed class and you had to teach them what you read about, what would be the best way to organize the information? Take 10 minutes to write down what and how you would teach them. The goal is to **clearly** present enough information so that our “absentee” would be right on track with the rest of us.”

*For basic facts, or for students just beginning to learn a new skill, the use of mnemonics or self-questioning strategies may be helpful.*

- Examples of self-questioning and mnemonic strategies:
  - Using clues (e.g. text headings), ask students to make predictions about what will be covered in reading assignments and monitor those predictions (i.e. were they correct? What changed?)
  - **Keywords:** Use familiar parts of new words to enhance recall. For example, the word “mitochondrion” begins with the sound “might”. Ask students to draw or think about the “mighty” mitochondrion to recall the function of that particular organelle [energy production]).
  - **Mnemonics:** Use mnemonic devices such as acronyms to recall basic facts. For example, the common word HOMES can be used to recall the Great Lakes (Huron, Ontario, Michigan, Erie, Superior).

## INSTRUCTIONAL PRESENTATION (Cont.)

Increase the use of Direct Instruction. Note that direct instruction does **not** mean increasing the amount of time devoted to lecture. Direct Instruction is a sequenced approach to instruction that has **repeatedly** received support from research conducted in applied settings.

- **Beginning the lesson:** Before beginning the lesson, the teacher should **have a clear idea of what the goals are for the lesson**. That is, at the conclusion of the lesson, what should students be able to do? How will you know if they can do it?
  - **Communicate to students what the learning goals are.**
- **Body of the lesson:** The teacher should present new information and **model exactly how students are expected to use the material**. What is expected as an end product? Note that modeling is more than telling. The teacher should provide many examples of quality work (from previous classes or current students). When appropriate, this may include referencing a rubric. Modeling should be supplemented with **targeted questioning** and other efforts to **check for student understanding**. Before moving on, it is critical that most students have the skills and/or knowledge for guided practice.
  - **Guided Practice:** Students work through material under direct teacher supervision. Students maybe working in small groups or individually. In either case, the teacher should be moving around the room to **check for understanding and provide feedback**.
- **End of Lesson**
  - The teacher should **review and clarify what was learned**. This information should be tied to the original goal (which students should also be aware of).
  - **Independent practice:** Students should be given the opportunity to work with the material in the absence of the teacher. This may involve assigning material for homework, but often includes work completed during later lessons.

*NOTE: The examples provided here are not intended to be prescriptive, but should illustrate how you might apply this strategy in your own classroom*

## DIFFERENTIATED INSTRUCTION

Recognize that students differ in their instructional needs and within reason, provide opportunities that may accommodate those needs. The differences in student need are likely to be **less connected to students' learning preference** (e.g. "learning style") and **more connected to students' current level of academic capability**. **First**, make an effort to learn more about students' strengths by reviewing their work and asking them to report which classroom assignments and subjects they perform better on. This might be done by asking individual students to stay after class or asking all students to write their answers down for bell-work. **Second**, respond to students' input. For areas in which individual or groups of students **struggle**, it may be appropriate to (a) modify the time allowed for completion, (b) modify assignments to align with students' current skill levels, or (c) offer extra review. For students who **excel**, it may be appropriate to offer enrichment opportunities once they finish their assigned coursework.

**For example:** Suppose that, **after assessing a student's work and asking the student to reflect on the work in class**, it becomes clear that the student would benefit from additional assistance. More specifically, the student reports that he or she feels like the content in class is being presented too quickly. However, it may be that **most** of the class has sufficient time to learn and work with new material. The teacher may:

1. *Increase the amount of time allowed for completing new assignments or the opportunities for additional review*
  - a. "It is most important that you complete the assignment and master the material, I would like you to stop by before school (or at lunch, planning period, after school) to spend some more time with this assignment"
  - b. "After we finish the lesson from today, I would like you to review the notes from yesterday and we can look over the assignment from yesterday as well. When you are ready, you can begin the assignment from today – we can bump back the due date for today's lesson as well."
2. *In an effort to increase accuracy before requiring fluency, slightly modify the content or setting of an assignment to reduce the strain on the student.*
  - a. "The 30 problems on this math assignment pretty much cover the same material. This time, just complete the odd problems. This should give you more time to check your work and ask questions."
  - b. "On previous writing assignments you struggled a little bit with the proper structure for your response. This time, I have provided an outline for you to follow as you complete the assignment. For example, see how I have started each paragraph for you? Now I would like you to fill in what comes after each first sentence."
3. *Increase the specificity and frequency of feedback and allow for corrections to be made.*
  - a. "I have highlighted areas of your summary on the industrial revolution that need additional information. For the first highlighted area, I provided an example of the detail you need to provide. I also circled two areas that were very well done. Use this information to take another shot at the highlighted areas and turn the summary back in" (in this case, other students in class may have received a more simple form of feedback)

## GOAL ORIENTATION

*In place of asking students to “do their best” on classroom activities, clearly define broad goals to be met over the course of several weeks or months, and specific goals to be met for units or lessons. Make these goals explicit to students and communicate the “plan” for achieving goals (both broad and specific). Last, collect tangible information on students’ progress toward those goals and communicate this information to student in a clear manner – this may include the use of visuals such as charts or graphs.*

- “This week you will continue composing essays on environmental pollution. Recall that all essays should state the premise, provide reasons in support of the premise, address possible counterarguments, and provide a conclusion. As you work on providing support for your premise today, remember that your goal is to **identify three ideas in support of your premise**. When you look over your essay, you can use the goals we have developed to assess the quality of your work (teacher passes out a chart with specific goals for each section of the essay).”
- “By Friday, our goal is to identify and define at least 9 parts of the cell. After our lesson each day, you will write down and define as many organelles as you can. We will check our work each day and you will plot your progress in your notes.”
- For broader goals, it may be helpful (albeit less informative for individual students) to track progress throughout the curriculum (e.g. using a chart of the curriculum objectives to allow students to see which objectives are left for mastery and which have been mastered).

There are a variety of ways in which you can set goals and monitor progress toward those goals. As you construct your own approach for monitoring students’ progress, remember the components that are likely to promote positive outcomes:

1. Phrase goals in terms of the task to be completed.
2. Communicate the plan for reaching the goal.
3. Monitor progress toward the goal (or have students monitor their own progress). In either case, students should be explicitly aware of their progress toward the goal.

**NOTE:** *The examples provided here are not intended to be prescriptive, but should illustrate how you might apply this strategy in your own classroom*

Hattie, J. (2009), *Visible Learning: A synthesis of over 800 meta-analyses relating to achievement*. Oxon: Routledge.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112. doi: 10.3102/003465430298487

Page-Voth, V. & Graham, S. (1999). Effects of goal setting on and strategy use on the writing performance and self-efficacy of students with writing and learning problems. *Journal of Educational Psychology*, 91(2), 230-240. doi: 10.1037/0022-0663.91.2.230