

When ACQUISITION is the Target: How to Set Individual Student Academic Goals

The focus of classroom interventions is often to help students to acquire a fixed set of academic-skill items (e.g., naming numbers 1-10). When the intervention supports the acquisition of a finite set of items, timelines tend to be short (e.g., 1-8 weeks) and the goal is typically mastery of all items in the academic-item set. Here are the steps to follow in defining a student goal to acquire a limited set of academic items:

1. **Select a Set of Academic Items as the Intervention Target.** The teacher decides on a finite set, or 'pool', of academic items to be targeted in the intervention. Examples of possible academic-item sets suitable for intervention are naming of all mixed-case letters; answering 2-term multiplication math facts 0-12; and giving definitions for 20 key biology terms.
2. **Establish Criteria for Item Mastery.** The teacher next defines the criteria that allow him or her to judge when the student has mastered any particular item from the academic-item pool. Along with the expectation of a *correct* response, mastery criteria usually include expectations for *speed* of responding.

Creating criteria for determining item mastery is useful because these criteria allow the teacher both to be more consistent and to have greater confidence in judging whether a particular item has been mastered.

As an example of criteria for item mastery, a first-grade teacher decides that mastery on a mixed-case letter-naming intervention should be defined as: "When shown a flash-card with an upper- or lower-case letter, the student will correctly name the letter within 3 seconds." To cite a second example, a high-school science teacher whose intervention is intended to promote definitions of 20 key biology terms defines mastery as follows: "When shown a biology term, the student will correctly state the definition orally within 10 seconds."

3. **Collect Baseline Data.** Before beginning the intervention, the teacher determines the student's baseline level of performance. The easiest way to collect baseline data is to present each of the items from the item-pool to the student in random order, have the student respond, apply the mastery criteria (developed in the previous step) to determine whether each item is correct or incorrect, and record the student's responses.

For example, a first-grade teacher collects baseline data by showing her student flash-cards with all 52 mixed-case letters while applying her mastery criteria: The teacher sorts each card whose letter the student can correctly name within 3 seconds into a 'known' pile and sorts into an 'unknown' pile those flash-cards that the student identifies incorrectly or hesitates in responding beyond 3 seconds. At the end of the session, the teacher tallies the student's responses and discovers that at baseline he can correctly identify 38 of a possible 52 mixed-case letters.

TIP: If a student tends to have a high degree of variability in responding—e.g., on some days the student answers items correctly and on other days he or she gets those same items wrong—the teacher may want to inventory the student's skills across 2-3 successive days and count as 'known' for baseline only those items the student can correctly answer across all sessions.

4. **Set an Intervention Exit Goal.** The teacher next sets a student exit goal that defines a successful intervention. In most cases, the teacher will probably decide that the intervention is to be judged a success when the student

has met the standard for mastery on all items in the academic- item pool. For example, a high school science teacher may set, as an intervention exit goal, that a student will be able to correctly define all of the items from a list of 20 key biology terms.

Occasionally, however, the teacher may decide that an alternative outcome goal is acceptable. For example, a fourth-grade teacher may set as an exit goal that a student whose intervention focuses on 2-term multiplication facts 0-12 will be able to answer at least 90 percent of those math facts correctly. In this teacher's judgment, 90 percent proficiency on this collection of math facts will permit the student to experience sufficient success on math class- and homework to discontinue the intervention.

5. **Decide on the Frequency and Session Length of the Intervention.** The teacher decides how long each intervention session is to last and how many intervention sessions the student will receive per week. For students with mild academic deficits, intervention sessions can be as short as 20 minutes per day, 3 days per week. For students with greater deficits, intervention sessions may last 30-45 minutes per session and occur as often as 4-5 days per week.
6. **Set a Timespan for the Intervention.** The teacher estimates the number of instructional weeks the intervention should be attempted and sets an end-date by which the student is predicted to attain success. An intervention that targets the student's acquisition of a specific set of academic items is typically of short duration: between 1 and 8 instructional weeks.

However, predicting long an acquisition intervention should last is more of an art than a science. The teacher must exercise professional judgment, selecting a timespan that is both ambitious *and* realistic. Also, the frequency and session length of a particular intervention will affect the timespan. For example, a student whose intervention is scheduled at a higher 'dosage' (e.g., daily for 40-minute sessions) can be expected to reach the exit goal faster than a similar student whose intervention is scheduled at a lower 'dosage' (e.g., 3 times per week for 20-minute sessions).

7. **Monitor the Student's Progress.** Throughout the intervention, the teacher can monitor the student's progress periodically (e.g., weekly or even more frequently) by having the student attempt all of the items in the item-pool and recording the results.

For example, the first-grade teacher whose intervention targets a student's letter-naming skills for mixed-case letters measures her student's progress by reviewing all 52 letter flash-cards once per week and, each time, tracking the number of letters that the student is able to name correctly within 3 seconds of being shown the flash-card.

As a second example, the high school science teacher working with a student on acquiring 20 key biology terms and their definitions ends each intervention session by having the student attempt to define all terms, with each vocabulary word counted as correct if the student defines it correctly within 10 seconds.

References

Burns, M. K., & Gibbons, K. A. (2008). *Implementing response-to-intervention in elementary and secondary schools*. Routledge: New York.

When ACQUISITION is the Target: How to Set Individual Student Goals: CASE 1

Directions: Review the intervention scenario shared in the workshop. Then use this sheet to set a goal and progress-monitoring plan for this acquisition –level intervention:

1. Select a Set of Academic Items as the Intervention Target.

Describe the 'pool' or set of academic items for this intervention: _____

2. Establish Criteria for Item Mastery.

Write your criteria to judge mastery for each item in the set: _____

3. Collect Baseline Data.

Describe how you would go about collecting baseline data on this skill-set: _____

4. Set an Intervention Exit Goal.

Develop an intervention exit goal for this set of academic items: _____

5. Decide on the Frequency and Session Length of the Intervention.

Based on the degree of student delay, come up with recommendations for how frequent the intervention should occur and how long each intervention session should last:

Frequency (times per week): _____ Length of Session: _____ minutes

6. Set a Timespan for the Intervention.

How many weeks do you think that this intervention should last? _____ weeks

7. Monitor the Student's Progress.

How frequently would you recommend monitoring this student's progress during the intervention?

When ACQUISITION is the Target: How to Set Individual Student Goals: CASE 2

Directions: Review the intervention scenario shared in the workshop. Then use this sheet to set a goal and progress-monitoring plan for this acquisition –level intervention:

1. Select a Set of Academic Items as the Intervention Target.

Describe the 'pool' or set of academic items for this intervention: _____

2. Establish Criteria for Item Mastery.

Write your criteria to judge mastery for each item in the set: _____

3. Collect Baseline Data.

Describe how you would go about collecting baseline data on this skill-set: _____

4. Set an Intervention Exit Goal.

Develop an intervention exit goal for this set of academic items: _____

5. Decide on the Frequency and Session Length of the Intervention.

Based on the degree of student delay, come up with recommendations for how frequent the intervention should occur and how long each intervention session should last:

Frequency (times per week): _____ Length of Session: _____ minutes

6. Set a Timespan for the Intervention.

How many weeks do you think that this intervention should last? _____ weeks

7. Monitor the Student's Progress.

How frequently would you recommend monitoring this student's progress during the intervention?

When FLUENCY is the Target: How to Set Individual Student Academic Goals

Research norms for student performance and academic growth are the 'gold standard' in goal-setting, as they provide fixed, external standards for proficiency that are not influenced by variable levels of student skill in local classrooms. When setting academic goals for struggling students, schools should use research norms whenever they are available. In particular, research norms should be used for high-stakes RTI cases that may be referred at some point to the Special Education Eligibility Team.

To set a goal for student academic performance, four elements are needed:

1. *The student's baseline academic performance.* Prior to starting the intervention, the teacher calculates baseline performance by assessing the target student several times with the academic measure that will be used to measure that student's progress once the intervention begins.
2. *Estimate of 'typical' peer performance.* The teacher has a reliable estimate of expected or typical peer performance on the academic measure that will be used to measure the target student's progress.
3. *Estimate of expected weekly progress.* The teacher selects a rate of weekly academic progress that the target student is expected to attain if the intervention is successful.
4. *Number of weeks for the intervention trial.* The teacher decides on how many weeks the RTI intervention will last, as the cumulative, final academic goal can be calculated only when the entire timespan of the intervention is known.

If your school has access to progress-monitoring materials and research or proprietary norms for student performance and growth from a single source (e.g., AimsWeb.com; easyCBM.com), you can calculate an academic performance goal. In the steps below, it is assumed that the student has mild academic delays that allow him or her to benefit from a supplemental intervention that addresses skills appropriate to the student's current grade level.

How to set a goal:

1. The teacher collects at least 3 **baseline** observations from the target student using alternate forms of the progress-monitoring measure (e.g., CBM oral reading fluency passages). The median baseline observation is selected to serve as the student's starting (baseline) performance.
2. The teacher subtracts the student's baseline from the **estimate of typical peer performance** for that grade level supplied by the research norms to calculate the academic performance gap that is to be closed during the intervention.
3. The teacher decides **how many instructional weeks** the intervention will be in place (e.g., 8 weeks).
4. The teacher selects **grade-appropriate norms for academic growth per week** supplied by the research norms.
5. *[Optional but recommended for significant academic delays]* The teacher **multiplies the grade norm for weekly growth (selected in step 4) by a figure between 1.5 and 2.0** (Shapiro, 2008). Because the original weekly growth rate represents a typical rate student improvement, the target student's weekly growth estimate should

be adjusted upward to accelerate learning and close the gap separating that student from peers. Multiplying the original weekly growth rate by an amount ranging between 1.5 and 2.0 accomplishes this adjustment.

6. The teacher next **multiplies the weekly growth figure by the total number of weeks that the intervention will be in place**. This figure represents the minimum academic growth expected during the intervention.
7. The teacher adds the expected academic growth calculated in the previous step to the student baseline calculated in step 1. This figure represents the final student goal if the intervention is successful.

References

Shapiro, E. S. (2008). Best practices in setting progress-monitoring monitoring goals for academic skill improvement. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp. 141-157). Bethesda, MD: National Association of School Psychologists.

Tindal, G., Hasbrouck, J., & Jones, C. (2005). *Oral reading fluency: 90 years of measurement* [Technical report #33]. Eugene, OR: University of Oregon.

RTI Classroom Progress-Monitoring Worksheet

Student: _____ Teacher: _____ Classroom or Course: _____

SET-UP

BASELINE

A. Identify the Student Problem: Describe in clear, specific terms the student academic or behavioral problem:

B. Select a Data Collection Method: Choose a method of data collection to measure whether the classroom intervention actually improves the identified student problem (e.g., curriculum-based measurement, etc.).

How frequently will this data be collected?: _____ times per _____

C. Collect Data to Calculate Baseline: What method from the choices below will be used to estimate the student's baseline (starting) performance? (NOTE: Generally, at least 3-5 baseline data points are recommended.)

- From a total of _____ observations, select the **median** value. Other: _____
- From a total of _____ observations, calculate the **mean** value. _____

Baseline	3. Date: ___/___/___ Obsv: _____
1. Date: ___/___/___ Obsv: _____	4. Date: ___/___/___ Obsv: _____
2. Date: ___/___/___ Obsv: _____	5. Date: ___/___/___ Obsv: _____

Baseline Performance: Based on the method selected above, it is calculated that the student's baseline performance is:

PROGRESS-MONITORING

D. Determine Intervention Timespan: The intervention will last _____ instructional weeks and end on ___/___/___.

E. Set a Performance Goal: What goal is the student expected to achieve if the intervention is successful?
At the end of the intervention, it is predicted that the student will reach this performance goal:

F. Decide How Student Progress is to Be Summarized: Select a method for summarizing student progress ('outcome') attained when the intervention ends. *Student progress at the end of the intervention is to be summarized by:*

Selecting the **median** value from the final _____ data-points (e.g.,3).

Computing the **mean** value from the final _____ data-points (e.g.,3).

[For time-series graphs]: Calculating the **value on the graph trend line** at the point that it intercepts the intervention end date.

G. Evaluate the Intervention Outcome:
 At the end of the intervention, compare student progress to goal. If **actual progress** meets or exceeds **goal**, the intervention is judged successful.

The student's ACTUAL Progress (Step F) is:	▶
The PERFORMANCE GOAL for improvement (Step E) is:	▶

Progress-Monitoring	5. Date: ___/___/___ Obsv: _____
1. Date: ___/___/___ Obsv: _____	6. Date: ___/___/___ Obsv: _____
2. Date: ___/___/___ Obsv: _____	7. Date: ___/___/___ Obsv: _____
3. Date: ___/___/___ Obsv: _____	8. Date: ___/___/___ Obsv: _____
4. Date: ___/___/___ Obsv: _____	9. Date: ___/___/___ Obsv: _____