

# Self-Monitoring: Students as Self-Managers of Behavioral Change



One effective tool for changing behavior is student self-monitoring. Behavioral self-monitoring can be informally defined as a student's *measurement of his or her own behavior and comparison of that behavior to a pre-determined standard*. Self-monitoring can take many forms. One student may use a paper form to rate her study skills at the end of each class period, for example, while another student might verbally rate his social behaviors when approached by his teacher at random times across the school day.

Self-monitoring takes advantage of a behavioral principle: the simple act of measuring one's target behavior and comparing it to an external standard or goal can result in lasting improvements to that behavior. (Self-monitoring is sometimes described as having "reactive" effects because students who measure and pay close attention to selected behaviors often *react* to this monitoring information by changing those target behaviors in the desired direction.)

In classroom settings, self-monitoring offers several advantages. Self-monitoring requires that the student be an active participant in the intervention, with responsibility for measuring and evaluating his or her behaviors. Also, in order for the student to accurately self-evaluate behaviors, he or she must first learn the teacher's behavioral expectations. The ability to understand and internalize the behavioral expectations of others is a milestone in the development of adult social skills. Finally, student self-monitoring data is typically economical to collect, even in a busy classroom, and can often be used to track the success of a behavioral intervention.

There are many possible variations to student self-monitoring programs. In order to be most effective, however, most self-monitoring programs should include the following steps:

1. **Teach behavioral expectations.** Students must know what the behavioral standards of the classroom are before they can be expected to compare their own behaviors to those standards. When working with an individual student, the teacher should first identify the behavioral targets that the student will self-monitor (e.g., study or work skills, classroom

## Figure 1: Behavioral Rubric Example

Behavioral Goal: *The student will come to class with all work materials.*

Rubric:

- **Fully accomplished:** The student comes to class with all required work items (1. pen and paper; 2. all required handouts; 3. all completed homework; 4. all cumulative notes; and 5. course text).
- **Partially accomplished:** The student comes to class missing no more than one significant item.
- **Not accomplished:** The student comes to class missing more than one significant work item.

behaviors). Next, the teacher should meet privately with the student to discuss the behaviors that the student will monitor. For each goal behavior, the teacher and student should write a behavioral definition, or rubric, that provides observable evidence, or "look-fors," to indicate when the behavior is successfully accomplished, partially accomplished, and not accomplished at all.

Figure 1 presents a rubric created by a teacher and student to define the behavioral goal: *The student will come to class with all work materials.*

Once a rubric has been created for each target behavior, the teacher and student should review and role-play a range of possible classroom scenarios to illustrate clearly when each goal behavior has been successfully accomplished and when it has not. If the teacher knows, for example, that a student who frequently comes to class unprepared uses the excuse that she left her homework in her locker, the teacher could use that example in a scenario and tell the student that homework not brought to class automatically counts as a missing item—even if it has been completed prior to class.

2. **Select a method for self-monitoring.** In most student self-monitoring programs, the student uses a paper form or checklist to rate his or her behaviors. (Several sample behavior-monitoring forms appear later in this packet.) The teacher may, however, select alternative methods for the student to self-rate behaviors. For example, an instructor may approach a student randomly during independent work periods and ask the student to verbally rate his attention to task using a 5-point rating scale (1=Not attending at all; 5=Highly attentive to task). Or a student with Internet access may be motivated to complete a self-rating form emailed to her daily by her teacher.
3. **Choose a schedule for monitoring.** Because self-monitoring requires that the student measure his or her behavior repeatedly, the teacher must schedule when the monitoring will occur. Figure 2 presents a number of possible self-monitoring schedules.

For some behaviors, the appropriate time interval for monitoring will be obvious. If a behavior goal is that the student will come to the classroom each morning with all required work materials, for instance, the teacher will probably ask the student to rate classroom readiness at the start of the school day ("start" interval). For other behaviors, though, the instructor will have several options. If a student is to monitor her attention to classroom instruction, for example, the teacher may choose to have the student monitor at variable intervals (e.g., varying intervals that average 4 times per hour), during fixed intervals (every 15 minutes), or at the end of the instructional period only. Often, students do best on a variable-interval schedule—especially when they must monitor general work habits, attention span, and classroom behaviors—probably because random intervals are difficult for the student to predict. However, a primary consideration for teachers who select a student self-monitoring schedule is that it be feasible within the constraints of that classroom.

## Figure 2: Choices for Scheduling Self-Monitoring

- *Start of period or day.* The student monitors at the start of the class period or school day. Sample behaviors suitable for "start" intervals include arriving to class on time and having all required work materials.
- *End of period or day.* The student monitors at the end of the class period or school day. Sample behaviors suitable for "end" intervals include copying homework assignments from the board and global ratings of the student's behavior during that classroom period or school day.
- *Stable transition points through period or day.* The student monitors periodically during the class period or school day, with each monitoring episode tied to a stable, easily identified "transition point" that naturally occurs in that classroom setting. Common transition points include the student's moving from one learning activity to another (e.g., from independent seatwork to whole-class lecture) or transitioning from one school setting to another (e.g., from the lunch room to the classroom). Sample behaviors suitable for "transition point" intervals include the speed of the student's transition between activities, and the student's general behavior during transition periods.
- *Fixed intervals through period or day.* The student monitors at fixed periods during the class period or school day (e.g., every 15 minutes; at the top of each hour). Sample behaviors suitable for "fixed" intervals include overall classroom behaviors, attention and focus, social interactions with other students, and compliance with adult requests.
- *Variable intervals through period or day.* The student monitors at variable periods during the class period or school day (e.g., varying intervals that average 3 times per hour). Sample behaviors suitable for "variable" intervals include overall classroom behaviors, attention and focus, social interactions with other students, and compliance with adult requests. NOTE: Teachers who choose to have students rate themselves across variable intervals will probably want to use a kitchen timer or other timing device set at varying intervals across the monitoring period to help remind them when the student should be cued to monitor his or her behaviors.

4. [Optional] Choose suitable rewards for successful behavior change. Teachers can increase the power of a self-monitoring program by rewarding students when they consistently achieve positive ratings. Remember, though, that students differ in what experiences, privileges, or objects they find positively reinforcing. Here are 3 ideas for figuring out what rewards will motivate a particular student:
  - *Watch the student in action.* Teachers can get a very good idea of a student's preferred rewards, or reinforcers, simply by observing the student across the school day. The locations where a student chooses to spend time, the people he or she chooses to interact with, and the activities the student engages in all provide hints about what the student finds rewarding. For example, one student may have a friend that he enjoys spending time with,

suggesting that the student would view "free time with a friend of your choice" as a motivating reward. Another student might frequently beg the teacher to be allowed to care for the class mascot, a pet rabbit—presenting the possible reward idea of "five minutes petting the rabbit."

- *Ask people who know the student well what he or she finds rewarding.* Adults such as parents or past teachers who have interacted with the student regularly for months or years can probably give you a list of ideas about rewards that will really motivate him or her.
  - *Administer a reinforcer survey to the student.* Reinforcer surveys contain a list of possible rewards acceptable for use in a classroom. The teacher meets with the student to review each reinforcer item on the survey, and the student rates whether he or she finds the item to be a motivating reward. The teacher can then create a menu of possible rewards for the student using those reinforcers that the student rated as most motivating. (HINT: Teachers can conveniently create their own customized reinforcer surveys online at this web address: <http://www.jimwrightonline.com/php/jackpot/jackpot.php>.)
5. **Conduct periodic accuracy checks.** Periodically, the teacher should check the student's self-monitoring data and procedures to ensure that the student is recording accurately. Random spot-checks tend to result in higher-quality student self-recording data.

#### References:

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Checklists. The checklist is a useful format for recording student follow-through on multi-step directions. Checklists also can be helpful in translating more comprehensive skills (e.g., "organization") into more manageable sub-skills. The checklist format is quite versatile: it can be used to verify that a student has materials necessary to begin classwork, for example, or to measure a student's level of attention and participation during lecture, or to review homework for common errors before handing that work in to the teacher.

The sample checklist below could be used on a daily basis by a student to monitor the quality of his or her in-class behaviors. (TIP: If this form were used for multiple episodes of self-monitoring during a single class period, the student could have the form taped to the desk as a guide but write the actual self-monitoring values onto a separate recording form.)

**Self-Check**  Date: \_\_\_\_\_

*How well did I ... ?*

	Good	Fair	Poor
• Stay in my seat			
• Participate			
• Avoid distracting others			
• Follow directions			

**Self-Check**  Date: \_\_\_\_\_

*How well did I ... ?*

	Good	Fair	Poor
• _____			
• _____			
• _____			
• _____			

**Rating Scales (e.g., Behavior Report Cards).** Rating scales are behavior items with a quantitative (e.g., 1-9) or qualitative (e.g., "poor-fair-good") behavior rating format. One of the more widely used versions of rating scales for student self-monitoring is the Behavior Report Card (BRC).

Behavior Report Cards are an excellent tool for the student to evaluate her or his behavior at the end of a fixed period (e.g., end of the morning; end of a class period; after independent seatwork). Like checklists, the Behavior Report Card can also be useful as a goal-setting tool: The student previews the items before the monitoring period and sets a performance goal for each item (e.g., "Today I plan to earn a rating of 'good' on 'Came to class with necessary work materials' "). Then at the end of the session, the student uses the Behavior Report Card to evaluate the actual behavior and evaluate whether he or she managed to attain that original performance goal.

The sample Behavior Report Card on the next page contains a sampling of items that could be used for student self-ratings, including ability to interact appropriately with peers and adults, ability to focus attention in the classroom, and degree of homework completion.

## *ADHD Behavior Report Card: Student Self-Rating*

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

Rater: Teacher \_\_\_\_\_ Classroom: \_\_\_\_\_

Directions: Review each of the Behavior Report Card items below. For each item, rate the degree to which the student showed the behavior or met the behavior goal. NOTE: The student will be awarded an additional point when his/her ratings correspond to those of the teacher.

***The student spoke respectfully and complied with adult requests without argument or complaint.  
Rating of 3 = 1 Behavior Pt***

How well the student did in meeting the behavior goal?

1.....2.....3  
Poor Fair Good

***The student got along with others while showing socially appropriate behaviors.  
Rating of 3 = 1 Behavior Pt***

How well the student did in meeting the behavior goal?

1.....2.....3  
Poor Fair Good

***The student focused his or her attention on teacher instructions, classroom lessons and assigned work.  
Rating of 3 = 1 Behavior Pt***

How well the student did in meeting the behavior goal?

1.....2.....3  
Poor Fair Good

***The student wrote down homework assignments correctly and completely.  
Rating of YES = 1 Behavior Pt***

Did the student succeed in this behavior goal?

YES    NO

**Academic Performance.** Student self-monitoring of academic performance has the advantage of tracking relevant school skills; this is an important consideration for students with ADHD who may also struggle to complete assigned work. Additionally, academic performance can be a helpful self-monitoring target for the ADHD student because engagement in academics is largely incompatible with off-task behaviors such as looking out the window or joking with peers.

The sample Academic Performance Student Monitoring Sheet on the next page allows the student to monitor academic progress on a targeted skill and to set regular goals for improvement.



## Academic Performance Student Monitoring Sheet

Student Name: \_\_\_\_\_ Classroom/Grade: \_\_\_\_\_ School Year: \_\_\_\_\_

**Directions to the Student:** This form allows you to track and improve your academic performance.

*STEP 1: Describe the type of academic goal that you plan to self-monitor.* (Examples are "homework assignments completed," "math computation skills," "length of writing assignments.") Have a teacher help you with this if needed.

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*STEP 2: Select an objective measure to use in tracking progress on this task.* (Examples are "percentage of homework assignments completed during the week," "number of math computation problems completed correctly," "total words appearing in a writing assignment.") Have a teacher help you with this if needed.

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*STEP 3: Set daily academic goals and record your actual performance.* Every time that you self-monitor, first record the date and set a goal that you hope to achieve, next perform the academic task, and finally record your actual performance. Here are some examples:

"GOAL: Turn in 80% of homework assignments this week. ACTUAL PERFORMANCE: 100% of homework assignments completed."

"GOAL: 18 correct multiplication problems. ACTUAL PERFORMANCE: 18 correct multiplication problems."

"GOAL: 70 words on writing assignment. ACTUAL PERFORMANCE: 68 words on writing assignment."

Date: _____	Goal: _____	Actual Performance: _____
Date: _____	Goal: _____	Actual Performance: _____
Date: _____	Goal: _____	Actual Performance: _____
Date: _____	Goal: _____	Actual Performance: _____
Date: _____	Goal: _____	Actual Performance: _____
Date: _____	Goal: _____	Actual Performance: _____
Date: _____	Goal: _____	Actual Performance: _____
Date: _____	Goal: _____	Actual Performance: _____
Date: _____	Goal: _____	Actual Performance: _____
Date: _____	Goal: _____	Actual Performance: _____



# How to Create a Variable-Interval (VI) Self-Monitoring Schedule Using a Kitchen Timer

In some cases, student self-monitoring can be more effective if that student is placed on a "variable-interval" (VI) schedule. Because variable-interval schedules are less predictable than fixed intervals, they can result in higher and more sustained rates of desired student behaviors.

With a VI schedule, the teacher selects a target interval length (e.g., 5 minutes) that will elapse before the student is to self-monitor. During the self-monitoring, however, the actual interval lengths in a VI schedule vary randomly (e.g., 4 minutes, 6 minutes, 5 minutes, etc.) in such a way that the *average* of those intervals will still equal the teacher-selected interval length.

Teachers can purchase hardware devices and smart-phone apps that can be programmed to deliver self-monitoring signals (e.g., beeps) on a variable interval of the user's choosing. However, with a low-tech, inexpensive kitchen timer, teachers can use the simple guidelines below to put the student on a variable-interval self-monitoring schedule.

1. Select the average length of the self-monitoring time interval. The teacher selects the amount of time—on average—that will elapse between student self-monitoring episodes. Examples might be 3 minutes, 10 minutes, or 5 minutes.
2. Generate a random list of variable-interval numbers. The teacher creates a randomly generated list of numbers that vary but cluster around the target average time interval previously selected. Here is an easy way to create this random number list:
  - a. Go to the NumberFly Early Math Fluency Probe Generator on Intention Central: <http://www.interventioncentral.org/tools/early-math-fluency-generator>
  - b. Find the Number Identification (NID) probe generator at the bottom of the NumberFly page.
  - c. Set the lowest and highest numbers to be sampled. In the NID form, set the lowest number to be selected to be 1-3 points LOWER than the target average number and the highest number to be 1-3 points HIGHER than the target average number. In the screenshot on the right, the teacher

### Number Identification (NID)

**Description:** The student is given a page containing a series of randomly selected numbers. The student must read these numbers aloud.

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Select the **lowest** and **highest** numbers to be selected in the number-identification series:


FROM  TO

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How many **rows** of numbers should appear on the student worksheet?:

How many individual numbers should appear in **each row** of the worksheet?

 **NID Directions:** Download directions for administering and scoring *Number Identification* probes, test statistics, & brief guidelines for use in an RTI process

 **NID Graph:** Access a time-series graph to chart student progress using *Number Identification* probes

chose an average interval of 5 minutes. She then set the lowest number in the series to be 3 (2 pts below the target) and the highest number to be 7 (2 pts above the target figure).

- d. Click the "Submit" button to generate the randomly generated number list.

The screenshot on the right shows an example of a number list with randomly generated values that cluster around the value "5" and deviate as much as 2 points above or below that central value.

Probe Type: Number Identification							
5	7	4	6	3	3	5	4
7	6	7	5	3	4	6	5

3. Use the variable-interval number list during monitoring. During self-monitoring, the student is given a kitchen timer and number list. The student is instructed to
- find the first number in the series on the number list,
  - set the timer to the number of minutes corresponding to that number,
  - draw an "X" through the number, and
  - begin the appropriate activity to be monitored.

When the timer sounds, the student completes whatever self-recording of behavior is required and then resets the timer, repeating the steps outlined above. The process continues to the end of the self-monitoring session.

**TIP:** If the student is unable to implement the variable-interval method described here, an adult (e.g., teacher, paraprofessional, etc.) can manage the setting of the timer while expecting the student to record his or her behavior at the end of each variable interval.