

Progress Monitoring

Seneca Valley School District

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Progress Monitoring

Progress monitoring is a scientifically based practice that is used to assess students' academic performance and evaluate the effectiveness of instruction. It can be implemented with individual students or with an entire class.

The website for the National Center on Student Progress Monitoring can be found at <http://www.studentprogress.org/links.asp>

In addition, the Pennsylvania Training and Technical Assistance Network (PaTTAN) has a large amount of information on progress monitoring. Please see <http://www.pattan.k12.pa.us/teachlead/ProgressMonitoring.aspx>.

You can use progress monitoring with any subject or behavior as long as it's measurable.

Purpose of Progress Monitoring

Teachers who are interested in determining a student's response to intervention (RTI) will typically monitor the child's progress. If they determine that a child is performing satisfactorily, it means that the methodologies are working. When a child flounders, teachers try a different procedure and continue to monitor the student's progress. With progress monitoring, teachers can quickly identify fluctuations in a child's learning or behavior rate.

Teachers of students with disabilities are required by law to monitor the progress of their students. They must report this progress at least as often as report cards are issued.

Figure 1
Measurable Annual Goals

V. GOALS AND OBJECTIVES – Include, as appropriate, academic and functional goals. Use as many copies of this page as needed to plan appropriately. Specially designed instruction may be listed with each goal/objective or listed in Section VI.

Short-term learning outcomes are required for students who are gifted. The short term learning outcomes related to the student’s gifted program might be listed under Goals or Short Term Objectives.

<p>MEASURABLE ANNUAL GOAL Include: Condition, Name, Behavior, and Criteria (Refer to Annotated IEP for description of these components)</p>	<p>Describe HOW the student’s progress toward meeting this goal will be measured</p>	<p>Describe WHEN periodic reports on progress will be provided to parents</p>	<p>Report of Progress</p>

SHORT TERM OBJECTIVES – Required for students with disabilities who take alternate assessments aligned to alternate achievement standards (PASA).

<p>Short term objectives / Benchmarks</p>

Steps in Progress Monitoring

Progress monitoring involves a six-step approach: (1) developing measurable annual goals and objectives, (2) making data collection decisions, (3) selecting data collection tools and a schedule, (4) representing the data, (5) evaluating the data, and (6) making instructional adjustments.

Step 1: Developing Measurable Annual Goals and Objectives

When the IEP Team meets, the members identify the needs that the student has that result from the disability and effect progress in the general education curriculum. This process involves reviewing the current evaluation report (ER) or re-evaluation report (RR) and considering any data from members of the Team.

Figure 2
Present Levels on the IEP

II. PRESENT LEVELS OF ACADEMIC ACHIEVEMENT AND FUNCTIONAL PERFORMANCE

Include the following information related to the student:

- Present levels of academic achievement (e.g., most recent evaluation of the student, results of formative assessments, curriculum-based assessments, transition assessments, progress toward current goals)
- Present levels of functional performance (e.g., results from a functional behavioral assessment, results of ecological assessments, progress toward current goals)
- Present levels related to current postsecondary transition goals if the student’s age is 14 or younger if determined appropriate by the IEP team (e.g., results of formative assessments, curriculum-based assessments, progress toward current goals)

- Parental concerns for enhancing the education of the student
- How the student's disability affects involvement and progress in the general education curriculum
- Strengths
- Academic, developmental, and functional needs related to student's disability

The Team will write a measurable annual goal for each skill area need that is identified. Typically, this might involve goals for reading, math, writing, or spelling. Functional needs could include activities of daily living or undesirable behaviors. Annual goals and short-term instructional objectives must have a condition, a clearly defined behavior, and a performance criterion in order to be measurable. They must also have a measurable present level (baseline).

Step 2 – Making Data Collection Decisions

If a teacher has a high-priority objective for a student, he/she will usually want to collect data on a daily basis. Also, if the teacher is implementing a new program, data should be collected quite frequently. Just remember that you have to develop priorities.

We were recently with a teacher who was collecting data on seven different behaviors for all of her students. This is unrealistic unless you have paraprofessionals or others who can collect data for you.

Daily, weekly, monthly, or quarterly data collection activities are driven by: (1) the IEP goals and objectives, (2) the data collection method and tools, and (3) your knowledge of the student's learning profile.

You must decide where the data will be collected. Think of the settings and the situations. Settings might include the classroom, home, cafeteria, playground, community, etc. Situations might be during instruction, during transitions, during free time, etc.

Another decision is concerned with how often the data will be collected. Will you be doing this daily, twice a week, weekly, every other week? In many cases, it's unrealistic to try to collect data for the entire school day. You might want to collect it when it's most obvious. For instance, if the student has most of his problems during reading class, collect it then. Just be consistent so you can compare data from one observation to another.

You need to determine who will collect the data. Some of the people who might assist include the (1) special education teacher, (2) regular education teacher, (3) paraprofessional, (4) parent, (5) related service provider, and (6) student. Remember that you need to all agree on the occurrence of the behavior. If you have a vague description like "being disrespectful," different observers wouldn't agree on this and you'd get different data. Be sure your target behavior is clearly defined.

Step 3 – Data Collection Tools and Schedules

You have to decide the type of data that should be collected. Some types of data include: (1) a structured anecdotal report, (2) event recording, (3) duration recording, and (4) latency recording.

The structured anecdotal report provides a written description (narrative report) of a student's behavior in a particular setting or time period. We recommend using this report when you have a new student. This lets you record his/her behaviors and decide on which ones you'll target. This

is often used as a first step in recognizing specific behaviors and the related environmental events. (e.g. The student is out of control and constantly disrupts the class.)

There are different ways of doing an anecdotal report. One way is with the behavior card.

Figure 3
Behavior Card

Student:	Activity:	Individuals Present:	Time and Date
Antecedent(s): <ul style="list-style-type: none"> <input type="checkbox"/> Asked to do something <input type="checkbox"/> Attention given to others <input type="checkbox"/> Ongoing behavior interrupted <input type="checkbox"/> Bored – no materials/activities <input type="checkbox"/> Couldn't get desired item <input type="checkbox"/> Appeared to be in discomfort <input type="checkbox"/> Loud/disruptive environment <input type="checkbox"/> Other student provoked <input type="checkbox"/> Other_____ 	Behavior of Concern: <ul style="list-style-type: none"> <input type="checkbox"/> Off-task <input type="checkbox"/> Noncompliance <input type="checkbox"/> Running away <input type="checkbox"/> Physical/verbal aggression <input type="checkbox"/> Playing with objects <input type="checkbox"/> Screaming/tantruming <input type="checkbox"/> Self-injurious behavior <input type="checkbox"/> Fidgeting <input type="checkbox"/> Provoking/teasing others <input type="checkbox"/> Other_____ 	Consequence(s): <ul style="list-style-type: none"> <input type="checkbox"/> Verbal redirection to activity <input type="checkbox"/> Physical redirection to activity <input type="checkbox"/> Required to continue activity <input type="checkbox"/> Ignoring <input type="checkbox"/> Time out (duration_____) <input type="checkbox"/> Within room area <input type="checkbox"/> Outside room area <input type="checkbox"/> Physical discomfort relieved <input type="checkbox"/> Interruption/blocking <input type="checkbox"/> Physical restraint <input type="checkbox"/> Other_____ 	

Another example of an anecdotal report is the A-B-C approach.

Figure 4
A-B-C Anecdotal Report

Student:		Setting: (activity and individuals present)	
Time and Date	Antecedent	Behavior	Consequence

Event recording is a technique in which you count the number of times the behavior occurs. This is suitable for behaviors that have an obvious beginning and end. Recording tools include: (1) tally marks, (2) checkmarks, (3) abacus, (4) hand-held frequency counters, (5) stitch counters, (6) smile faces, and (7) tokens. (e.g. word recognition, coin counting, verbal yes/no responses, drinking from a cup).

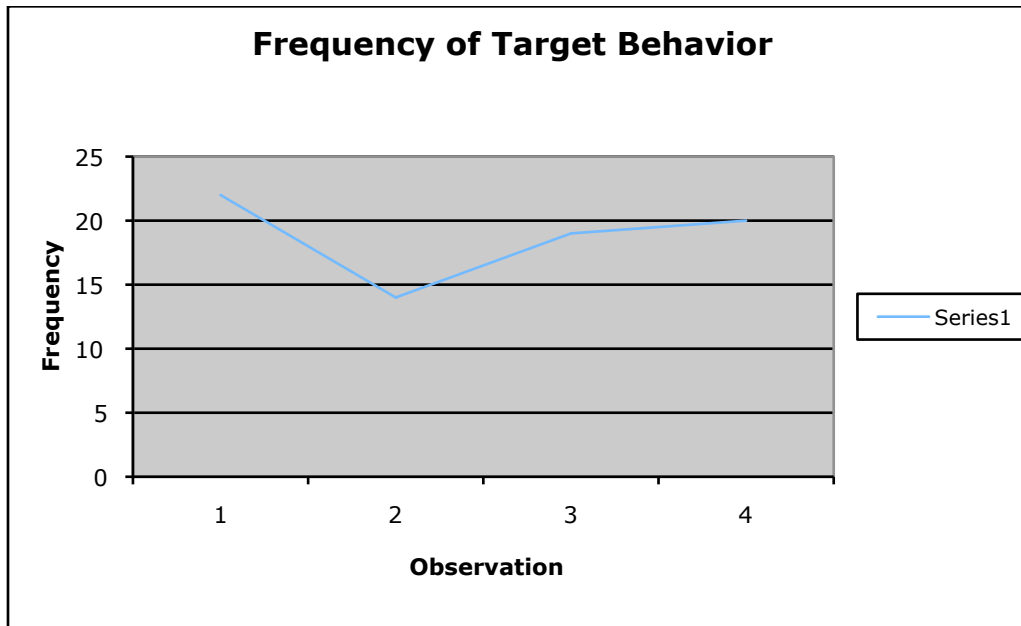
Figure 5
Basic Event Recording

Student: _____			
Observer: _____			
Behavior: _____			

Date	Time	Tally	Total
3/16	8:35 AM – 9:00 AM		22
3/17	8:35 AM – 9:00 AM	L	14
3/18	8:35 AM – 9:00 AM	L	19
3/19	8:35 AM – 9:00 AM		20

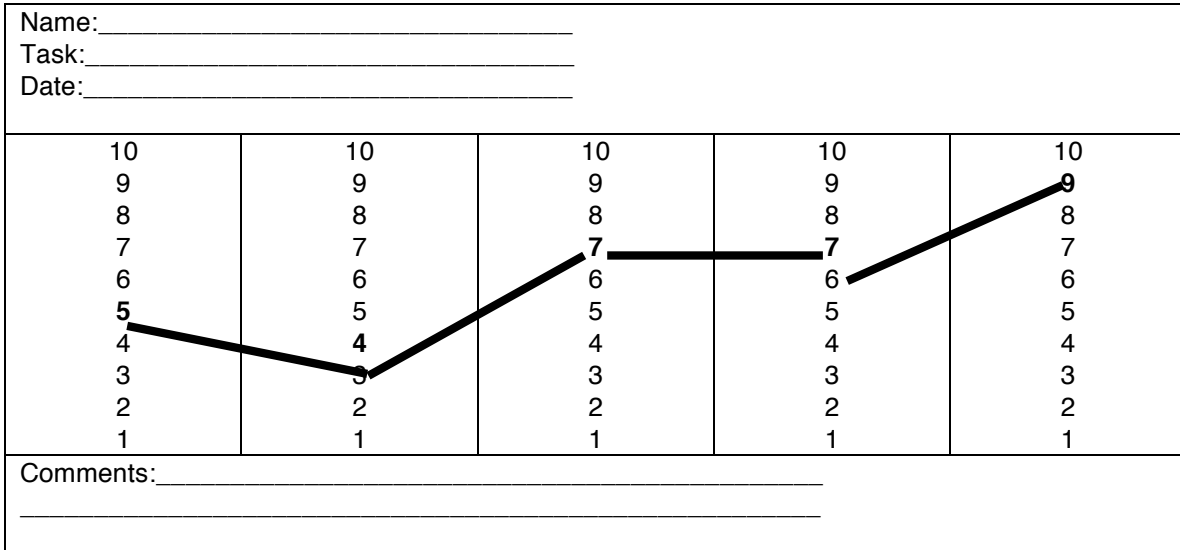
After collecting the data, the teacher would make a graph to display the results.

Figure 6
Graphic Display of Event Recording Data



The teacher might also have a chart that's already prepared for event recording. This would be for controlled presentations when the number of opportunities the student had to perform the behavior would be structured. (In this case, no more than 10.)

Figure 7
Event Recording for Controlled Presentations



This chart easily transforms into a graphic representation of the data.

Duration recording is a technique that is best suited for behaviors such as tantrums, out-of-seat without permission, time on task, etc. The teacher is interested in determining how long a behavior lasts rather than how frequently it occurs. For instance, if a child threw a tantrum, it might last 10 seconds or 10 minutes. If you were using event recording, you'd only know that the child had a tantrum. With duration recording, you'd know exactly how long it lasted.

<http://www.specialconnections.ku.edu/cgi-bin/cgiwrap/speconn/main.php?cat=assessment§ion=main&subsection=ddm/duration>

With duration recording, you would typically use a stopwatch or a digital watch with a chronometer.

You'd start it when the behavior began, and stop it when the behavior ended. In some cases, you might be able to use a large clock with a second hand, but a stopwatch would generally be much better and easier to use.

Figure 8
Duration Recording

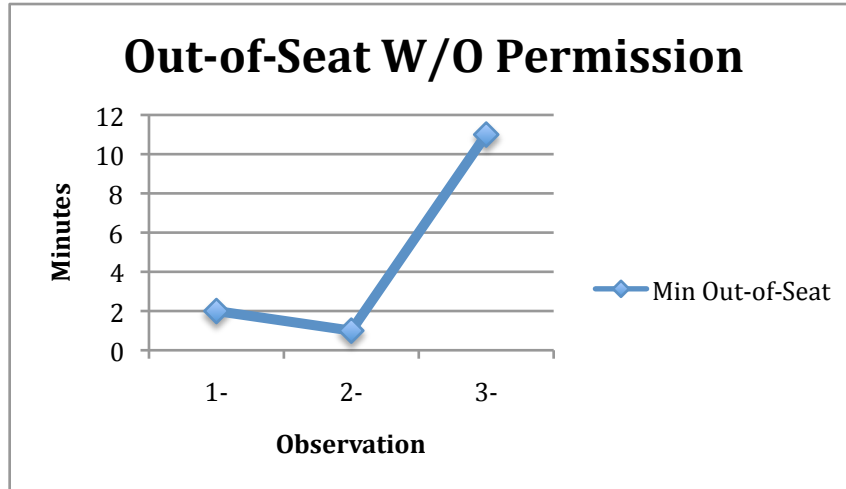
Student: Sue		Behavior: Out of seat without permission	
Observer: Dennis Fair			
Date	Time of Behavior Initiation	Time of Behavior Completion	Duration
4/3	10:03:15	10:05:20	2 min 5 sec
4/4	10:20:10	10:21:10	1 min 0 sec
4/5	10:30:30	10:41:40	11 min 10 sec

Most teachers would graph the data according to the nearest minute. Alternatively, you could graph it according to the total number of seconds.. If you charted the data according to the nearest minute, your graph would look like the one in Figure 9.

Figure 9
Duration Recording Data

Duration	Total Seconds	Nearest Minute
2 min 5 sec	125	2
1 min 0 sec	60	1
11 min 10 sec	670	11

Figure 10
Graphing Duration Data



In this case, you have an “outlier” (11). Instead of using the mean, the best measure of central tendency would be the median. It would be 2.

Latency recording is used to record the length of time that elapses from the time the student is cued until he/she begins the behavior. This is an excellent technique to use with beginning academic assignments or beginning to put away toys.

<http://www.specialconnections.ku.edu/cgi-bin/cgiwrap/speconn/main.php?cat=assessment§ion=main&subsection=ddm/latency>

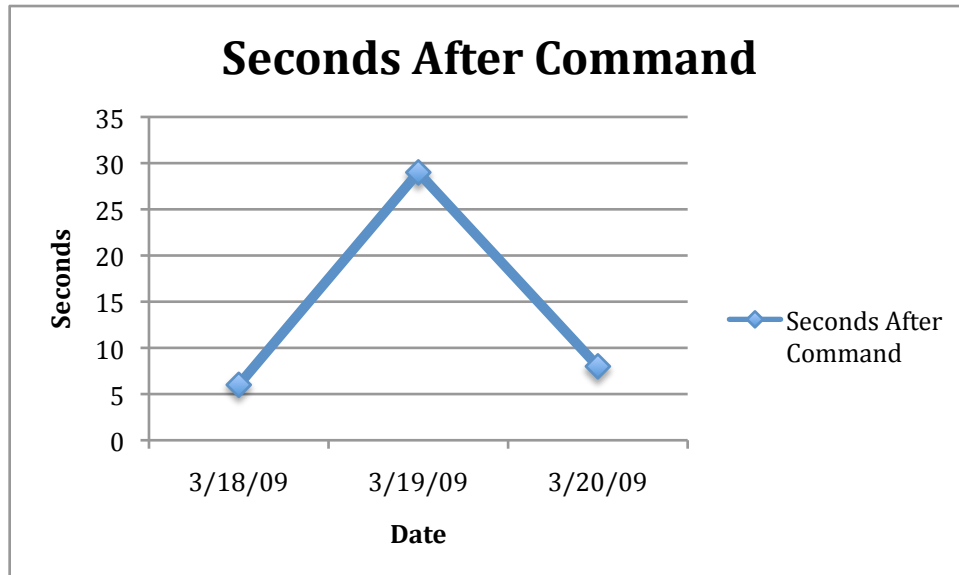
For instance, if you tell your student to begin his reading assignment, and it takes him several minutes to start after you give the instruction, you might use this technique. **Remember when your mother told you to make your bed, and how long it took you to do it?**

A stopwatch is probably the best instrument to measure latency. Alternatively, you can use a clock with a second hand, but I definitely recommend a stopwatch.

Figure 11
Latency Recording Data

Student_____		Behavior_____	
Observer_____			
Date	Time of Cue	Time of Initiation of Behavior	Latency
2/18	1:07:05	1:07:11	6 sec
2/19	1:11:00	1:11:29	29 sec
2/20	1:22:54	1:23:02	8 sec

Figure 12
Graphing Latency Data



A review schedule can occur on a daily, weekly, monthly, or quarterly basis. The schedule should be driven by your goals and objectives, the method and tools you're using, and your knowledge of the student's profile. Remember that you'll need data for the progress reports on the IEPs.

When you are beginning to monitor a new behavior, it's probably best to review the data on a daily basis. Once you notice that a definite trend is occurring, you might review the data weekly. If the trend continues in an acceptable manner, you might review the data less frequently.

As we work with school districts, we usually recommend to teachers that they monitor behavior on a weekly basis. This way, if the data indicate that the goals aren't being met, they can adjust their instruction. Teachers should use this data for their progress reports. For instance, if your district issues report cards every nine weeks, you might use the data from week nine for your progress report. Next, you'd use the data from week 18 for your second progress report, etc.

Step 4 – Representing the Data

The best way for a teacher to represent his/her data is visually. By charting and graphing, you can communicate the program effectiveness to other teachers, administrators, parents, and the student.

A visual representation is right on track with progress monitoring procedures that are being advocated by the PDE and required by IDEA. Today, IDEA requires that teachers use research-proven methods and that they use progress monitoring to follow the student's RTI.

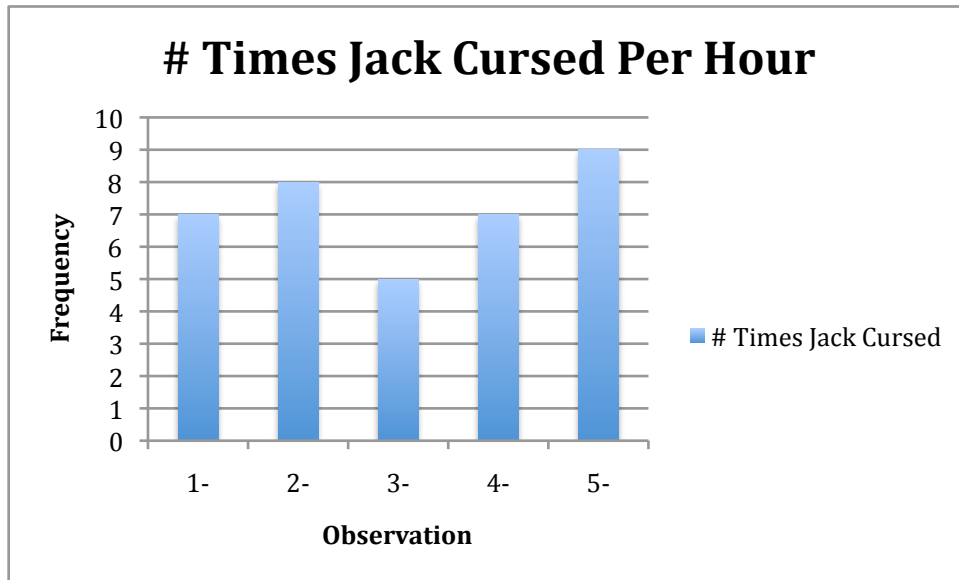
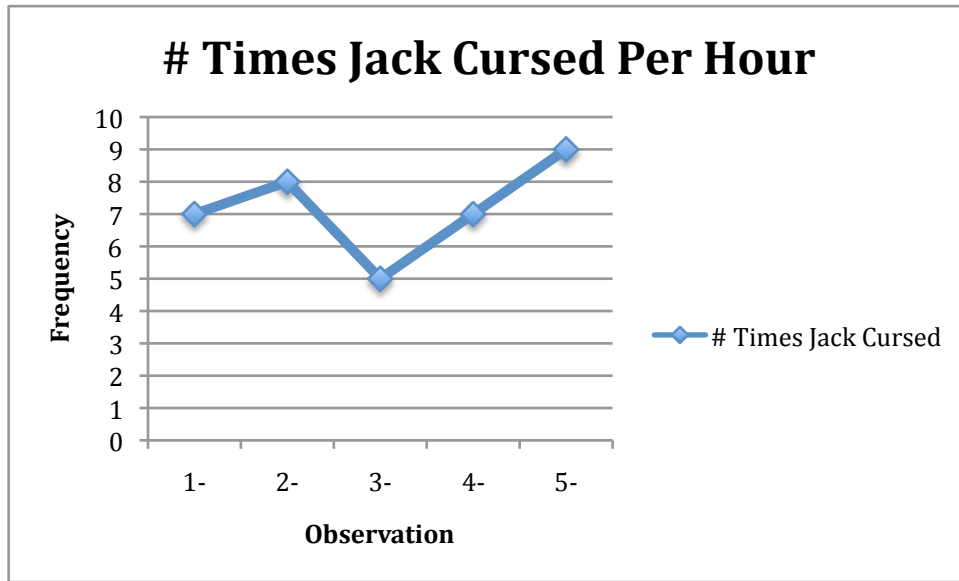
In addition to reviewing the data for RTI, teachers can use it for IEP progress reports and for re-evaluations. <http://www.osepideasthatwork.org/ParentKit/cbm.asp>

Data that are represented on graphs can provide reinforcement and feedback to students and parents and help teachers make decisions about continuing or improving their interventions.

When a teacher makes a graph, it should be simple, understandable, and able to stand alone without additional documents.

In most cases, teachers will use line graphs (also called frequency polygons) or bar graphs (also called histograms).

Figure 13
Line Graph and Bar Graph



Observation	# Times Jack Cursed
1-	7
2-	8
3-	5
4-	7
5-	9

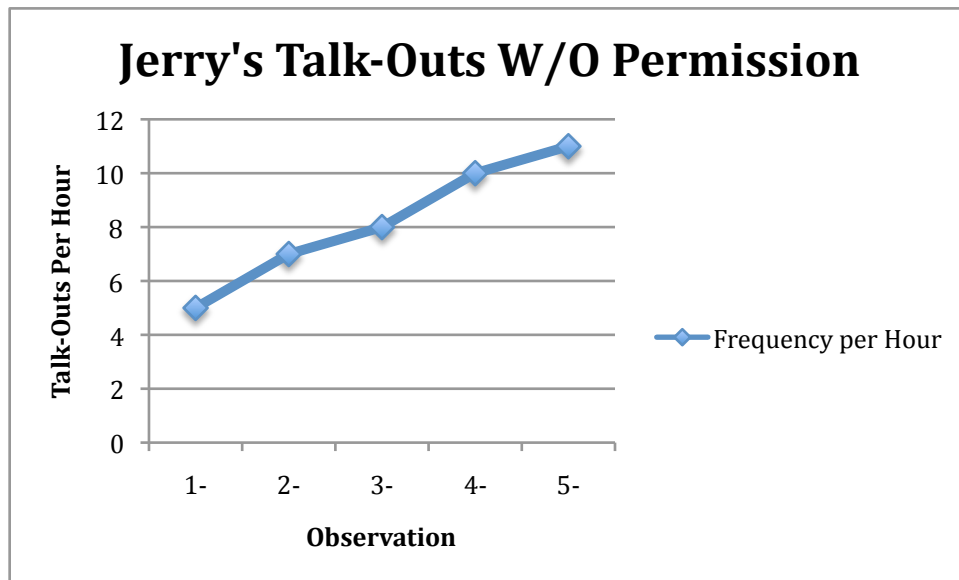
When a teacher begins to collect data, he/she must establish a baseline. Generally, there are three types of baselines; stable, ascending, and descending.

If the behavior were occurring at about the same rate from one observation to another, the baseline would be stable. If the behavior would be increasing, the baseline would be ascending. If the behavior would be decreasing, the baseline would be descending.

In Figure 13, the behavior occurred 7, 8, 5, 7, and 9 minutes per hour. It was happening at about the same rate from one observation to the next. This is an example of a stable baseline. If you have a stable baseline, you can begin procedures to either increase or decrease the target behavior. When we look at a baseline, we have to assume that, unless we're using an intervention, the behavior will continue with the same trend. Therefore, we can begin an intervention to either reduce or increase the behavior if the baseline is stable.

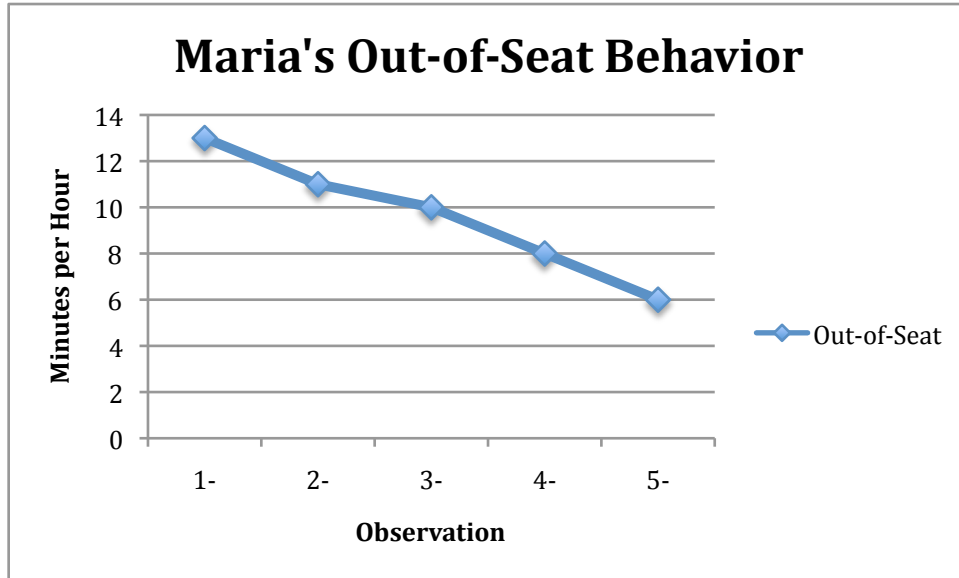
Below, in Figure 14, we have an example of an ascending baseline. Jerry's talking out without permission keeps increasing. With this type of baseline, we can begin an intervention only to decrease the target behavior.

Figure 14
Ascending Baseline



Our final example in Figure 15 shows a descending baseline. With data like these, you can only begin procedures to increase the target behavior.

Figure 15
Descending Baseline



After establishing your baseline, you would begin your intervention. This could be concerned with increasing an academic behavior or decreasing a high-frequency behavior problem.

Let's use Jane's Reading Fluency as an example. You have established that her median fluency is 57. Now, you will utilize a research-proven reading methodology to increase her behavior. If you were developing a new IEP, you would establish a measurable annual goal.

Observation	Jane's Reading Fluency
1-	61
2-	59
3-	57
4-	54
5-	51

As a confident teacher, you determine that you could increase her reading fluency by one word per week with your reading program. There are 36 weeks in a school year. You determine that your annual goal would be to increase her reading fluency to 93 WCPM ($57 + 36 = 93$).

Your spreadsheet would look like this.

Week	Baseline	Aim Line	Achievement
3-	57		60
6-	57		63
9-	57		66
12-	57		69
15-	58		72
18-	57		75
21-	57		78
24-	57		81
27-	57		84
30-	57		87
33-	57		90
36-	57		93

You could paste the chart on your IEP.

Figure 16
IEP with Measurable Annual Goal

<p>MEASURABLE ANNUAL GOAL Include: Condition, Name, Behavior, and Criteria (Refer to Annotated IEP for description of these components)</p>	<p>Describe HOW the student's progress toward meeting this goal will be measured</p>	<p>Describe WHEN periodic reports on progress will be provided to parents</p>	<p>Report of Progress</p>																																																				
<p>Jane's reading fluency will increase from a median of 57 to 93 WCPM using 3rd grade materials. She will make only random error.</p>	<p>Progress will be monitored every three weeks by curriculum-based assessment</p>	<p>Reports will be sent to the parents every 9 weeks.</p>	<p>Jane's Reading Fluency</p> <table border="1"> <caption>Data for Jane's Reading Fluency Chart</caption> <thead> <tr> <th>Instructional Week</th> <th>Baseline (WCPM)</th> <th>Aim Line (WCPM)</th> <th>Achieve (WCPM)</th> </tr> </thead> <tbody> <tr><td>3-</td><td>57</td><td>60</td><td>93</td></tr> <tr><td>6-</td><td>57</td><td>63</td><td>93</td></tr> <tr><td>9-</td><td>57</td><td>66</td><td>93</td></tr> <tr><td>12-</td><td>57</td><td>69</td><td>93</td></tr> <tr><td>15-</td><td>58</td><td>72</td><td>93</td></tr> <tr><td>18-</td><td>57</td><td>75</td><td>93</td></tr> <tr><td>21-</td><td>57</td><td>78</td><td>93</td></tr> <tr><td>24-</td><td>57</td><td>81</td><td>93</td></tr> <tr><td>27-</td><td>57</td><td>84</td><td>93</td></tr> <tr><td>30-</td><td>57</td><td>87</td><td>93</td></tr> <tr><td>33-</td><td>57</td><td>90</td><td>93</td></tr> <tr><td>36-</td><td>57</td><td>93</td><td>93</td></tr> </tbody> </table>	Instructional Week	Baseline (WCPM)	Aim Line (WCPM)	Achieve (WCPM)	3-	57	60	93	6-	57	63	93	9-	57	66	93	12-	57	69	93	15-	58	72	93	18-	57	75	93	21-	57	78	93	24-	57	81	93	27-	57	84	93	30-	57	87	93	33-	57	90	93	36-	57	93	93
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Step 5 – Evaluating the Data

Before you actually begin to evaluate student data, there are certain assumptions that we'll make. First, we assume that the teacher is, in fact, implementing the instructional strategies. Second, we assume that the student is actively engaged in the instruction. Third, we assume that the aim line was correctly identified based on the student's present levels of performance. Finally, we assume that the teacher and IEP Team appropriately identified the measurable annual goal.

In order to interpret the data to make instructional decisions, we want to "eyeball" our graph and make decisions based upon what we see.

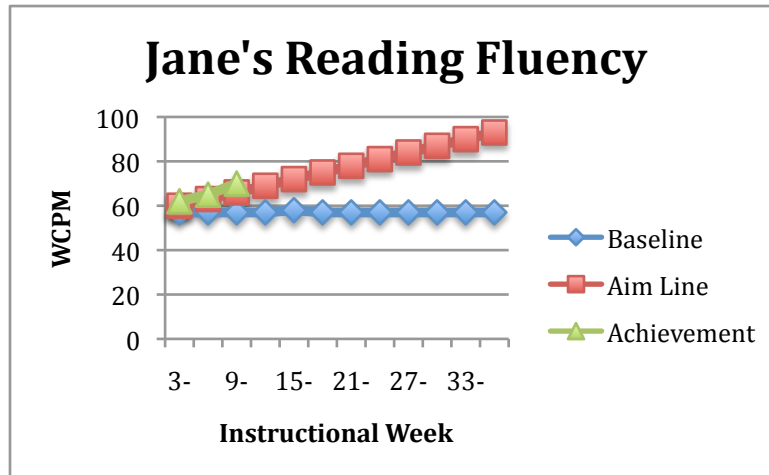
There are different characteristics of graphed data that can be used to describe and summarize a student's performance. We can look at the student's level of performance, slope of performance, and variability of performance.

When we examine the level of performance, we want to see the changes that occur immediately after a program modification. For instance, does the new intervention produce an immediate step (up or down) in the child's behavior?

Suppose you obtain the following data:

Week	Baseline	Aim Line	Achievement
3-	57	60	62
6-	57	63	65
9-	57	66	70
12-	57	69	
15-	58	72	
18-	57	75	
21-	57	78	
24-	57	81	
27-	57	84	
30-	57	87	
33-	57	90	
36-	57	93	

Figure 16
Nine Weeks After Intervention



You can see that the level of performance went up immediately after the intervention. The first progress report on the IEP would indicate that Jane was exceeding your expectations.

When we look at the slope of performance, we want to judge the general direction in which the child's performance is changing. Is it increasing, decreasing, or staying the same? We look at the rate of change and determine how fast it's changing over time. You can see that Jane's reading fluency is increasing.

When we look at the variability of performance, we want to see if there are up-and-down movements or if the improvement is consistent from day to day. We "eyeball" the data and make judgments about the degree of variability, ranging from high to low. In Jane's case, there is no fluctuation.

Teachers have some guidelines to follow for instructional decision-making. First, teachers should emphasize attaining their goal. Second, only use program modifications only when attaining the goal is in doubt. Third, there is nothing wrong with increasing your goal. If you underestimated a student's performance, you can always make your goal higher. Finally, the reduction of a goal should be the last option.

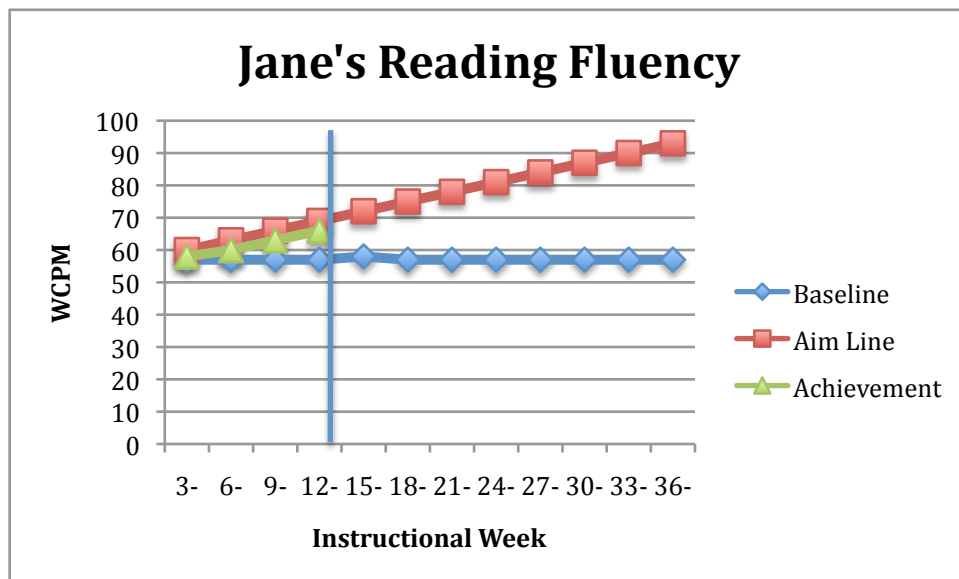
A general rule is to make program changes when performance falls below the aim line for four consecutive data points for ascending behaviors or for four consecutive data points above the aim line for descending behaviors. This takes much of the guesswork out of data analysis.

Step 6 – Making Instructional Adjustments

Consider these data:

Week	Baseline	Aim Line	Achievement
3-	57	60	58
6-	57	63	60
9-	57	66	63
12-	57	69	66
15-	58	72	
18-	57	75	
21-	57	78	
24-	57	81	
27-	57	84	
30-	57	87	
33-	57	90	
36-	57	93	

Figure 17
Achievement Below Aim Line



This example shows Jane failing to meet the projection for four consecutive data points. The teacher might want to reconsider and adjust the measurable annual goal, or, perhaps change to a new methodology. If a new methodology were attempted, you would use a phase change line in the graph to show this.

If a student isn't making progress, instructional adjustments must be made. Remember that the IDEIA requires that all students with disabilities receive a FAPE. The law requires teachers to use scientifically valid, research-proven procedures when they teach children with disabilities. This means that it has been tried and proven effective. You can review information from Intervention Central at <http://www.interventioncentral.org/index.php> for some great ideas. For instance, review http://www.jimwrightonline.com/php/interventionista/interventionista_intv_list.php?pro

[b_type=reading](#) for some ideas on reading. Review <http://www.interventioncentral.org/htmdocs/interventions/genAcademic/ccs.php> for some ideas for teaching math. You can go to *Google Scholar* at <http://scholar.google.com/> and put in some key words for reading or math research. This is very helpful when you try to identify research-proven methodologies. Go to <http://www.pattan.k12.pa.us/teachlead/Math.aspx> for information on new math techniques and see <http://www.pattan.k12.pa.us/teachlead/Reading.aspx> for new information on teaching reading. Go to the CEC website at <http://www.cec.sped.org/> and subscribe to the *CEC Smartbrief*. This great resource will provide you with current information on special education several times a week. Go to the *Education World* website at http://www.education-world.com/a_curr/curr139.shtml for a number of research-proven methodologies for students with disabilities.

Instructional adjustments may mean using a different instructional group, different materials, a different strategy, additional personnel, etc. Teachers have to determine the instructional change that might be required, draw a vertical phase change line on their graph, begin using the new intervention, and continue to monitor the child’s progress to see if the intervention is working. Refer to Figure 27.

You can use an Instructional Decision Matrix and Intervention Record as in Figure 28.

Figure 18
Instructional Decision Matrix and Intervention Record

Instructional Decision Matrix and Intervention Record	
Intervention Variables	Levels of Interventions
<ul style="list-style-type: none"> • Student • Curriculum • Instruction 	<ul style="list-style-type: none"> • Simple • Moderate • Intensive

Simple interventions could include (1) increasing a student’s motivation, (2) letting the student graph his/her own data, (3) giving reminders/cues to the child, (4) changing the location and/or timing of the instruction, and (5) increasing the student’s time on task.

Simple interventions are easy to implement, and they can have a significant impact. They are the logical ones to try first because they’re easy, and make no significant change in the instructional process.

Moderate interventions are designed to enhance instruction, not change it. They will usually intensify instruction by providing more instructional time and less “down” time. In most cases, they will involve focusing on specific skill areas found to be problematic.

Teachers can (1) modify direct instruction time, (2) modify academic engaged time, (3) modify the degree of task structure (e.g. directions, rationale, checks for understanding, student feedback), (4) modify guided and independent practice, and (5) modify opportunities to engage in active responding (e.g. writing, speaking, role playing, drawing...).

Moderate interventions will increase the amount and type of feedback. Usually, they will provide the student with corrective feedback that is task-specific, explicit, and allows him/her to practice correct answers before moving on to a new task. The teacher will increase the amount and type of cues and prompts.

Moderate interventions usually require a small amount of additional resources or time. Teachers

can try to fit them within their existing instructional process.

Intensive interventions will (1) change the curriculum, (2) change instructional materials, (3) add intensive 1:1 or small group instruction, or (4) ensure that curricular materials are matched to the student's instructional level.

Intensive interventions will ensure an optimal instructional pace (e.g. pacing students briskly through the curriculum, making sure the student is making continuous progress with minimal frustration). They will require more time and resources and will probably require additional support for implementation. The teacher may need additional consultation or professional development to select and implement these strategies.

In summary, progress monitoring involves a six-step approach: (1) developing measurable annual goals and objectives, (2) making data collection decisions, (3) selecting data collection tools and a schedule, (4) representing the data, (5) evaluating the data, and (6) making instructional adjustments. It is important for special educators to be able to utilize progress monitoring effectively as they do this in conjunction with a child's response to intervention.