

INFORMATION PAPER 9 PROGRESS MONITORING GRAPHS

The use of charts or graphs to record and analyze student performance data is an essential aspect of any systematic approach to monitoring student progress. Progress monitoring, in turn, is an essential step in problem-solving for students, because it provides the means to examine student performance across time and to evaluate the effectiveness of interventions.

Progress monitoring requires the frequent and repeated collection of student performance data with measurement usually occurring one to three times per week. Because of the large volume of data generated by progress monitoring procedures, there is a need for an efficient means of handling this information. Data must not only be recorded, but must also be analyzed in order to relate actual performance trends to the desired performance as defined by the goal statement. When data is recorded in a tabular fashion alone, it is much more difficult to analyze performance across time. The recording of data on a graph makes such time series analysis much easier. In fact, Fuchs (1989) cites research which indicates that the use of graphing procedures as part of ongoing monitoring results in more positive student outcomes than the use of tabular recording procedures alone.

The remainder of this information paper will define what is meant by a progress monitoring graph and will describe procedures for making use of such a graph.

DEFINITION

A progress monitoring graph provides a visual depiction of student performance data relevant to a specific behavior and goal. It can be used to display current level of functioning, expected performance at the end of the goal period, and actual performance as it is measured by progress monitoring procedures over the course of an intervention.

PROCEDURES

The first step in implementing a graphing procedure for progress monitoring is to set up the graph. Standard progress monitoring graphs or graph paper may be used. The horizontal axis of the graph should be labelled to represent some measure of time, such as calendar days, school days, weeks, or instructional sessions. The vertical axis of the graph should be labelled to represent some performance measure appropriate to the behavior being monitored (e.g., frequency, percentage, rate, duration, or latency of the behavior). The scale of the graph should be sufficient to accommodate variations in performance data and should allow for the recording of data over the entire goal period.

After the vertical and horizontal axes have been labelled, and the scale of the graph has been established, four essential components should be depicted on the graph. First, a clear written statement of the performance goal should be represented somewhere on the graph (usually at the top of the page). Second, the graph should chart the student's current level of functioning or baseline data. A third piece of data to be represented on the graph is the criterion level to be achieved at the end of the goal period. Finally, a line should be drawn between the median baseline data point and the data point representing the criterion level for the goal. This line is called a goal line or aim line. It depicts the expected rate of progress that a student will need to make in order to accomplish the designated goal.

Once these essential components have been recorded, the graph may be used to chart performance data as it is generated by progress monitoring procedures. Periodically, performance trends should be analyzed. Actual student progress should be compared to expected student progress in order to evaluate the effectiveness of the intervention. Formal rules should be used to guide decisionmaking. For example, if the trend of actual student performance is above the goal line, then the goal should be raised to reflect higher expectations for student performance. On the other hand, if the performance trend indicates a slower rate of progress than that designated by the goal line, then the intervention should be modified in some manner in order to make it more effective.

When changes in the intervention plan are made, they should be noted on the graph by drawing a vertical line at the point in time when the change occurs. The different phases of an intervention should

be clearly labelled, and the different components of each phase should be described on the back of the graph or elsewhere. Data points should not be connected across the different phases of an intervention.

SUMMARY

A graph provides a very effective tool for progress monitoring. It allows the visual representation of student performance data such as current level of functioning, expected criterion levels, and actual student performance across time. Charted data should be used to evaluate student outcomes and the effectiveness of interventions. Progress monitoring graphs facilitate the analysis of student performance across time, and also provide an effective means of communicating about intervention outcomes with teachers, parents, students and other educators.

REFERENCES

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