

## SLD TAP #2 – Insufficient Progress

The State of Washington's special education regulations were expanded in 2007 to provide additional options for determining Specific Learning Disability (SLD) eligibility, including options that provide for the use of "a process based upon a student's response to scientific, research-based interventions ([WAC 392-172A-03060](#))." This fact sheet addresses criterion 2, Insufficient Progress, as it relates to determining SLD eligibility.

**Table 1. Washington's Four Criteria for SLD Identification (adapted from Kovalski et al., 2022).**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |                                                                                                                                                                                                                                                                                 |   |                                                                                                                                                                                                                                                                                                                                                 |   |                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 Inadequate Achievement</b><br>Failure to achieve adequately for the child’s age or to meet state-approved grade level standard in one or more of the following areas: <ul style="list-style-type: none"><li>• Oral expression</li><li>• Listening comprehension</li><li>• Written expression</li><li>• Basic reading skills</li><li>• Reading fluency skills</li><li>• Reading comprehension</li><li>• Mathematics calculation</li><li>• Mathematics problem solving</li></ul> | + | <b>2 Insufficient Progress</b><br>The student does not make sufficient progress to meet age or state grade level standards in one or more of the areas identified in column (1) when using a process based on the student's response to scientific, research-based intervention | + | <b>3 Rule Out Alternative Primary Factors</b> <ul style="list-style-type: none"><li>• A visual, hearing, or motor disability;</li><li>• An intellectual disability;</li><li>• Emotional/behavioral disability</li><li>• Cultural factors;</li><li>• Environmental or economic disadvantage; or</li><li>• Limited English proficiency.</li></ul> | + | <b>4 Rule out Lack of Appropriate instruction</b><br>Document: <ul style="list-style-type: none"><li>• Instruction was delivered by qualified personnel;</li><li>• High quality core curriculum designed to meet the instructional needs of all students; and</li><li>• Repeated assessments of achievement at reasonable intervals were conducted.</li></ul> |
| Inclusionary                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   | + Observation                                                                                                                                                                                                                                                                   |   | Exclusionary                                                                                                                                                                                                                                                                                                                                    |   |                                                                                                                                                                                                                                                                                                                                                               |
| + Student Needs Specially Designed Instruction                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                                                                                                                 |   |                                                                                                                                                                                                                                                                                                                                                 |   |                                                                                                                                                                                                                                                                                                                                                               |



The Insufficient Progress criterion provides evidence that the student does not respond to scientific research-based interventions. This criterion is the second inclusionary factor when identifying a SLD using the dual discrepancy model and it must co-occur with Inadequate Achievement (see SLD TAP #1).

## Washington Administrative Codes (WACs)

The WACs require that a student be provided “two or more intensive scientific research-based interventions, identified to allow the student to progress toward his or her improvement targets” ([WAC 392-172A-03060](#)). “Scientific research-based” is further described in [WAC 392-172A-01165](#). An insufficient response to scientific research-based interventions occurs when the student does not make progress to meet age or grade level standards in one or more of 8 academic areas ([WAC 392-172A-03055](#)).

When evaluating a student’s response to intervention (RtI), the following elements must be in place: ([WAC 392-172A-03060](#)).

1. Universal screening and/or benchmarking at fixed intervals at least three times per academic year
2. A high-quality core curriculum that is designed to meet the instructional needs of all students
3. Scientific research-based interventions that are used with students needing additional instruction
4. A multitiered model for delivering the core curriculum and intensive interventions in the general education setting
5. Frequent progress monitoring of individual student progress that is consistent with the intervention and tier
6. Data-based decision making

Additionally, there must be evidence that the two or more intensive scientific research-based interventions were (a) were implemented with fidelity, (b) were implemented for a sufficient duration in the general education setting, and (c) were in addition to, or in place of, the core curriculum ([WAC 392-172A-03060](#)). When feasible and appropriate, it is best practice to supplement core curriculum with interventions rather than to supplant the core curriculum.

## Guidance

The basic premise of this criterion is that a student’s response to intensive, robust, research-based interventions is the best evidence for the existence of a Specific Learning Disability (Kovaleski et al., 2023, p. 7). Additionally, an insufficient response to intervention coupled with low achievement addresses the IDEA 2004 requirement of *educational need* (Fletcher et al., 2018,

p. 63). Prior to considering a student's response to intervention (RtI) for SLD eligibility, teams must establish that the student was provided high-quality core instruction, received at least two research-based intensive interventions with fidelity and for a sustained period of time, and that the student's progress has been monitored frequently (Kovaleski et al., 2023, p. 98). For an explanation of high-quality core instruction, research-based interventions, and fidelity, see TAP 5.

## Curriculum-Based Measures

A student's response to intervention is best measured with progress monitoring assessments such as curriculum-based measures (CBM). CBMs utilize repeated measurement over time and can be used to identify rates of progress as well as levels of performance (Hosp et al., 2016, p.4). Another useful feature of CBMs is that they can help guide instruction and intervention; they answer the question of how well a student is responding and provide information on the student's accuracy and fluency with specific academic skills. CBMs are characterized by several attributes, including standardized procedures for administration and scoring, efficiency, sensitivity to small increments of change, and technical adequacy (e.g., reliability and validity). CBMs are currently available for early reading, oral reading fluency, reading comprehension, writing, early numeracy, math computation, and math concepts and applications. The National Center on Intensive Intervention (NCII) maintains a tools chart of academic progress monitoring measures with ratings of their technical rigor (see [NCII Academic Tools Chart](#)).

## Establishing Baseline

Prior to collecting progress-monitoring data, a baseline must be established. Baseline occurs prior to intervention and predicts what will happen if nothing new is done for the student (Riley-Tillman, Burns, & Kilgus, 2020). Baseline data are compared to intervention data to determine whether the intervention had a positive effect. Baseline can be established by either using the student's score from the universal screening measure or by administering three progress monitoring probes (e.g., CBM's) and using either the median or mean score as the baseline (Hosp & Hosp, 2016). If the team believes the baseline data are unreliable, unstable or otherwise inaccurate, the recommendation is to collect additional data (Riley-Tillman, Burns, & Kilgus, 2020).

## Goal Setting

Baseline and progress monitoring data should be evaluated in comparison to an intervention goal. Goal-setting can be accomplished via several methods. Examples of the three most common methods are below ([NCII Strategies for Setting High Quality Academic Goals](#)). Because several of these methods employ the Rate of Improvement (ROI), it may be helpful to refer to the **Rate of Improvement** section presented later in this TAP. Additionally, refer to the **Progress Monitoring** section for a discussion of when it is appropriate to set goals based on off-grade level measures.

1. **Benchmarks:** Most progress monitoring tools/systems have middle and end-of-year benchmarks which can be used as goals. Grade-level benchmarks for reading, math, and written language are also available for free via sources such as [Intervention Central](#) and in published research. Benchmarks are often set at the 40<sup>th</sup> percentile. This method of using benchmarks as goals is most useful for students who are performing at or close to grade level. For students whose initial level of performance is significantly below benchmark (e.g., below the 16<sup>th</sup> percentile or at least one grade level behind), a different approach might be more appropriate. For example, rather than using a benchmark score set at the 40<sup>th</sup> percentile, it might be more appropriate to set a goal at the 25<sup>th</sup> percentile [See Figure 1]. Alternatively, teams could use one of the other goal-setting methods described below.
2. **National Norms for ROI:** Many progress monitoring tools provide national norms for ROIs. That is, they provide information on the typical (i.e., average, 50<sup>th</sup> percentile) weekly growth of students for a particular grade level. To set goals using this approach, teams would use the following formula:

Formula:

$$\text{Typical ROI} \times \# \text{ Weeks of Intervention} + \text{Baseline Score} = \text{GOAL}$$

Example:

Typical (Average, 50<sup>th</sup> percentile) ROI for CWPM = 1.4 CWPM per week

# Weeks of Intervention = 10

Student's Baseline ROI = 34 CWPM

$$1.4 \times 10 + 34 = 48$$

In this example, the student's goal based on the typical ROI would be 48 CWPM.

The advantage of using the ROI approach to goal-setting is that it provides a mechanism for writing a realistic goal for a student whose initial level of performance may be far below benchmark. However, the disadvantage of this approach is that in most cases, *simply matching the normal or typical ROI will not "close the gap" between the student and the expected level of achievement.* Therefore, more ambitious ROIs should be used. Many programs provide ambitious or above average ROIs; for example, weekly ROIs that are at the 75<sup>th</sup> percentile. If these ambitious ROIs are unavailable, then the following formula is recommended:

Formula:

$$\text{Average ROI} \times 1.5 = \text{Ambitious ROI (75}^{\text{th}} \text{ percentile)}$$

Example:

In the prior example, the average ROI is 1.4. Thus, an ambitious ROI would be  $1.4 \times 1.5 = 2.1$  CWPM.

Ambitious ROI for CWPM = 2.1

# Weeks of Intervention = 10

Student's Baseline ROI = 34

$$2.1 \times 10 + 34 = 55$$

In this example, the student's 10-week goal based on an ambitious ROI would be 55 CWPM.

This method could also be used for setting middle- or end-of-year goals by simply using the number of remaining weeks as the multiplier (e.g., multiplying the ROI by 18 weeks rather than 10 weeks). See Figure 2 for an example of how to use ROI for goal-setting.

3. **Intra-Individual Framework:** The third method for calculating a goal is to use the student's Attained ROI based on past performance rather than an ROI norm. This approach may be appropriate when a student is performing far below grade level and typical growth rates are not appropriate. The disadvantage is that it may be difficult to understand and calculate. To use this method, teams need at least 6-9 data points to set the goal. The first step is to find the student's ROI by subtracting the median of the first 3 data points from the median of the last 3 data points, divided by total number of data points-1.

Formula:

$$[\text{Median of last 3 data points}] - [\text{Median of first 3 data points}] / \text{Total \# of Data points} - 1$$

Example:

Here is an example using Digits Correct (DC) to measure math computation:

Student's first three DC scores: 5, 7, 6

$$\text{Median} = 6$$

Student's most recent three DC scores: 8, 10, 11

$$\text{Median} = 10$$

Total # of data points = 9

$$(10 - 6) / 8 = .50 \text{ DC per week}$$

In this example, the student's current ROI is .50 Digits Correct, per week.

The second step is to create an ambitious goal for the student based on their individual ROI. In order to close the gap, we want to improve the student's own ROI by at least 50% during the intervention period. To do so, multiply the ROI by 1.5 to create an ambitious ROI. Example:

Formula:

$$\text{Current ROI} \times 1.5 = \text{Ambitious ROI}$$

Example:

$$.50 \times 1.5 = .75$$

In this example, an Ambitious ROI for the student would be growth of .75 Digits Correct, per week.

The third step is to use the ambitious ROI to calculate a goal based on the number of weeks of the intervention or number of weeks left in the year.

Formula:

$$\text{Ambitious ROI} \times \# \text{ Weeks} + \text{Median Baseline} = \text{Ambitious Goal}$$

Example:

$$.75 \times 12 + 6 = 15$$

An ambitious goal using the intra-individual approach would be approximately 15 Digits Correct by the end of the 12-week period.

## Progress Monitoring

A student receiving Tier 2 or Tier 3 interventions should be progress monitored at least weekly with CBMs of the same difficulty level (Hosp et al., 2016; IRIS Center, 2023; Kovaleski et al., 2023). Frequent progress monitoring allows teams to determine whether the intervention is working for that student; if it is not, then a change to, or intensification of, the intervention would be necessary. For small groups of students who are receiving the same intervention, progress monitoring also allows teams to determine whether the intervention is working for the majority of students who have received it.

Typically, students are monitored at their *instructional level*, which may be lower than their grade level. This is also referred to as progress monitoring "off grade-level." Progress monitoring at the instructional level ensures that the measure will be sensitive to student growth. Additionally, identifying the instructional level helps teams to better understand where in the curriculum the student will be challenged and where they will likely make progress if taught at that level (Shapiro, 2011). In contrast, progress monitoring at the *frustrational level* (i.e., too difficult) will not likely adequately reflect student growth. Determining instructional level can be accomplished through survey-level assessment, which is the process of identifying the materials

at which the student's performance falls between the 25<sup>th</sup>-75<sup>th</sup> percentile (Shapiro, 2011). Scores below the 25<sup>th</sup> percentile would indicate frustrational level, whereas scores above the 75<sup>th</sup> percentile indicate student skills at the *mastery* level. For example, if a 3<sup>rd</sup> grade student's oral reading fluency is at the 10<sup>th</sup> percentile compared to other 3<sup>rd</sup> graders, but at the 41<sup>st</sup> percentile as compared to 2<sup>nd</sup> graders and at the 80<sup>th</sup> as compared to 1<sup>st</sup> graders, then the student's instructional level would be 2<sup>nd</sup> grade. Progress monitoring would then be completed using 2<sup>nd</sup> grade measures. This is also the grade level in which instruction will be most beneficial. Instead of using percentile ranks, some teams may need to rely on historical recommendations or guidelines from their online assessment platform to determine whether the student should be assessed at a lower level. For example, a 2nd grade student who reads fewer than 40 CWPM with more than 4 errors would be considered at the frustrational level according to the recommended reading levels offered by Fuchs and Deno (1982). Likewise, online assessment platforms such as Fastbridge recommend off-grade progress monitoring for students reading 10-15 CWPM or less ([Iowa: Off-Level Progress Monitoring – FastBridge \(illuminateed.com\)](#)).

If progress monitoring off grade-level, the student should still be assessed periodically with a grade-level measure. This could occur as part of universal screening or every 4-6 weeks. Grade-level measures are administered to assess the student's current level of achievement. This is necessary in determining the first criterion under the dual discrepancy model: Inadequate Achievement. If progress monitoring *on* grade-level, the most recent progress monitoring data points would be considered one source of evidence of the student's current academic achievement. See **SLD TAP #1: Inadequate Achievement** for more information on this criterion.

Teams should develop guidelines around the number of data points needed to make decisions about the student's Rtl. The goal is to have enough data points to make accurate decisions about the student's skills; in general, the more data points, the higher the accuracy (NCRTI, 2013a). Additionally, the interventions need to have been delivered "with sufficient duration" ([WAC 392-172A-03060](#)) and given time to work [see TAP #5 on research-based interventions]. The research indicates a range of 6-12 data points are necessary prior to determining a student's response to an intervention (Kovaleski, 2023; NCRTI, 2013a). High-stakes decisions, such as whether a student is eligible for special education, should be based on a minimum of 10-12 data points (Kovaleski et al., 2023). An adequate number of data points (e.g., at least 6) is required for *each* intervention attempted prior to making decisions about its effectiveness. Therefore, teams should be prepared to review the effectiveness of each intervention after the minimum number of data points have been collected for that intervention. See the **Decision Rules** section of this TAP for methods of determining whether an intervention has been effective.

## Rate of Improvement (ROI)

Frequent progress-monitoring data allow teams to determine a student's rate of growth or response to intervention. This is called "Rate of Improvement" (ROI). If a student's ROI is not sufficient for them to catch up to an acceptable level of performance (i.e., the goal) in a

reasonable amount of time, then the student may meet the second inclusionary criterion of an SLD: Insufficient Progress.

Four types of ROIs are present in the literature:

- A. **Attained ROI:** this is an individual student's ROI based on progress monitoring data. The formula for calculating an Attained ROI is presented below.
- B. **Goal ROI:** This is the ROI that would be necessary for the student to meet their goal. The student's Attained ROI is compared to the Goal ROI to make decisions regarding response to intervention.
- C. **Benchmark ROI:** This is the "typical" ROI or the growth rate of students who meet benchmark from screening to screening.
- D. **Student Growth Percentile (SGP) ROI:** SGPs allow comparison between the student's Attained ROI to the ROI obtained by peers who began at the same level as the student at the same time of year. For example, SGPs could be calculated for all 2<sup>nd</sup> grade students whose initial level of performance was at the 5<sup>th</sup> percentile when they began intervention in January (Winter to Spring). SGPs are available through some online assessment platforms, and if used, should be considered *in addition to* the student's Attained ROI (Kovaleski et al., 2013).

A student's Attained ROI is calculated by determining the slope of the progress-monitoring CBM data. The Attained ROI represents the amount of growth the student is making per week. For example, if using oral reading fluency (ORF) to monitor progress in reading, then an ROI would indicate the student's growth in Correct Words per Minute (CWPM), per week. The student's ROI could then be compared to the ROI needed to meet the goal (the Goal ROI; see following section on Goal Setting). The basic formula for calculating a student's Attained ROI is the last score minus the first score divided by the number of intervening weeks (Kovaleski et al., p. 104).

Formula:

(Last score-First score) / # of weeks of intervention

Example:

Student's CWPM at the beginning of the reading intervention: 50 CWPM

Student's CWPM at the end of the reading intervention: 70 CWPM

Duration of intervention: 10 weeks

Formula:

$$(70-50)/10$$

$$(20)/10=2.0$$

In this example, the student's ROI is 2.0 Correct Words per Minute, per week.

Although ROIs can be calculated using the simple method above, many online assessment platforms (e.g., aimswebPlus™, FastBridge) automatically calculate a student's ROI after a set number of data points. The assessments used by these platforms are typically either CBMs or computer-adaptive tests (CAT). Examples of CATs include STAR and i-Ready. A review of the psychometric properties of several online measures is available via the [NCII Academic Tools Chart](#)).

## Graphing

Progress monitoring graphs provide a clear picture of the student's level of academic achievement and their growth over time. Teams should use graphs to make decisions regarding the sufficiency of the student's response to an intervention. Graphs are also useful for communicating efficiently and effectively with families and teachers (Kovaleski et al., 2023).

Many progress monitoring online platforms automatically graph data; in other contexts, teams may need to input data into readily available graphing tools (e.g., Microsoft Excel). Regardless of the platform, all progress monitoring graphs should include the following elements: x- and y-axes, phase lines denoting interventions/changes in intervention, the student's goal, a goal line, the student's progress monitoring data, and a separate trend line for each intervention phase. Lines representing Benchmark ROIs or SGPs are optional. Time (e.g., days, weeks) is represented by the x-axis and the measure of academic skills is plotted on the y-axis. This is known as a "time-series" graph. *Goal lines* connect the student's baseline data to their goal. *Trend lines* represent the overall trend of the student's progress monitoring data.

It is beyond the scope of this TAP to provide step-by-step instructions on how to graph data. Interested readers should see [Kearns \(2016\)](#), Kovaleski et al. (2023), or Riley-Tillman et al. (2020).

## Decision Rules

Time-series graphs that allow for comparing trend lines against goal lines can be used for making decisions regarding the student's response to an intervention. Trend lines visually represent the student's achieved ROI and can be examined in comparison to the progress that is needed to meet the student's goal. This addresses the second inclusionary criterion of the SLD Dual Discrepancy method: Insufficient Response to Intervention. A sufficient response would be when the student has met, or is on track to meet, their intervention goal.

Using progress monitoring graphs, there are two recommended methods to determine a student's response to intervention: (A) Trend Line Analysis, and (B) Four Point Method (Kovaleski et al., 2023; NCRTI, 2013b).

**Trend Line Analysis:** After 6-12 data points have been collected for an intervention, decisions can be made by comparing the student's trend line to their goal line.

1. If the trend line is steeper than the goal line, the student's response to the intervention is sufficient.

2. If the trend line and the goal line are the same, the student's response to the intervention is sufficient.
3. If the trend line is flatter than the goal line, the student's response to the intervention is not sufficient.

Four Point Method: After 6-12 data points have been collected, decisions can be made by examining the four most recent data points and comparing them to the goal line.

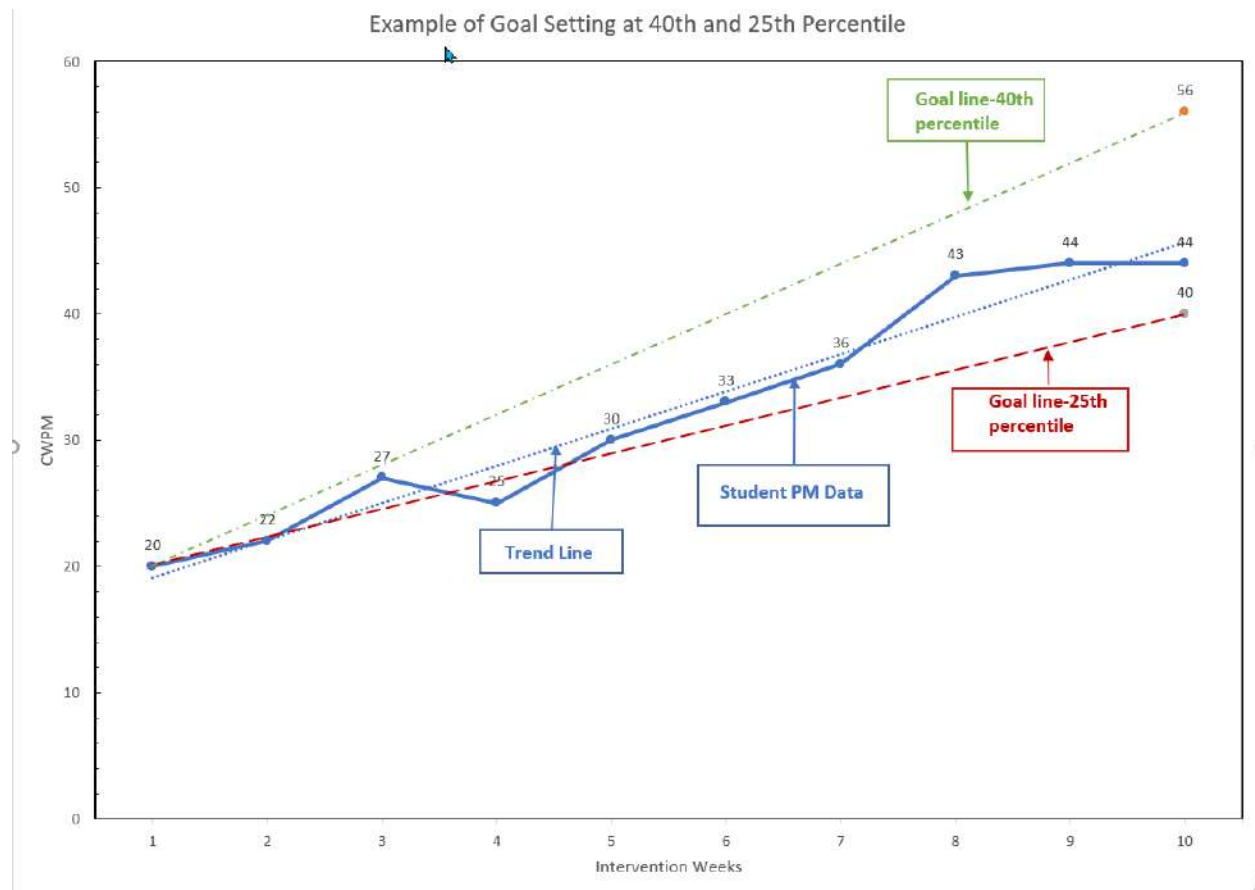
1. If the student's most recent 4 data points are all above the goal line, the student's response to the intervention is sufficient.
2. If the student's most recent 4 data points hover around the goal line, the student's response to the intervention is sufficient.
3. If the student's most recent 4 data points are all below the goal line, the student's response to the intervention not sufficient

According to the WACs, there must be evidence that two or more intensive scientific research-based interventions (a) were implemented with fidelity, and (b) were implemented for a sufficient duration in the general education setting ([WAC 392-172A-03060](#)). Thus, teams should collect and examine progress monitoring data on at least two interventions before making eligibility decisions. Additionally, decision-making about the effectiveness of each intervention should not occur until the minimum number of data points per intervention have been collected and graphed.

## Sample Graphs: Goal Setting and Decision Making

**Figure 1: Goal Setting at the 25<sup>th</sup> vs 40<sup>th</sup> percentile**

Below is an example of a progress monitoring graph for a student being progress monitored at the 1<sup>st</sup> grade level using Oral Reading Fluency CBM. This graph illustrates decision-making about the student's Rtl using two different goals: Spring Benchmark (approximately 40<sup>th</sup> percentile) and a Spring score at the 25<sup>th</sup> percentile.



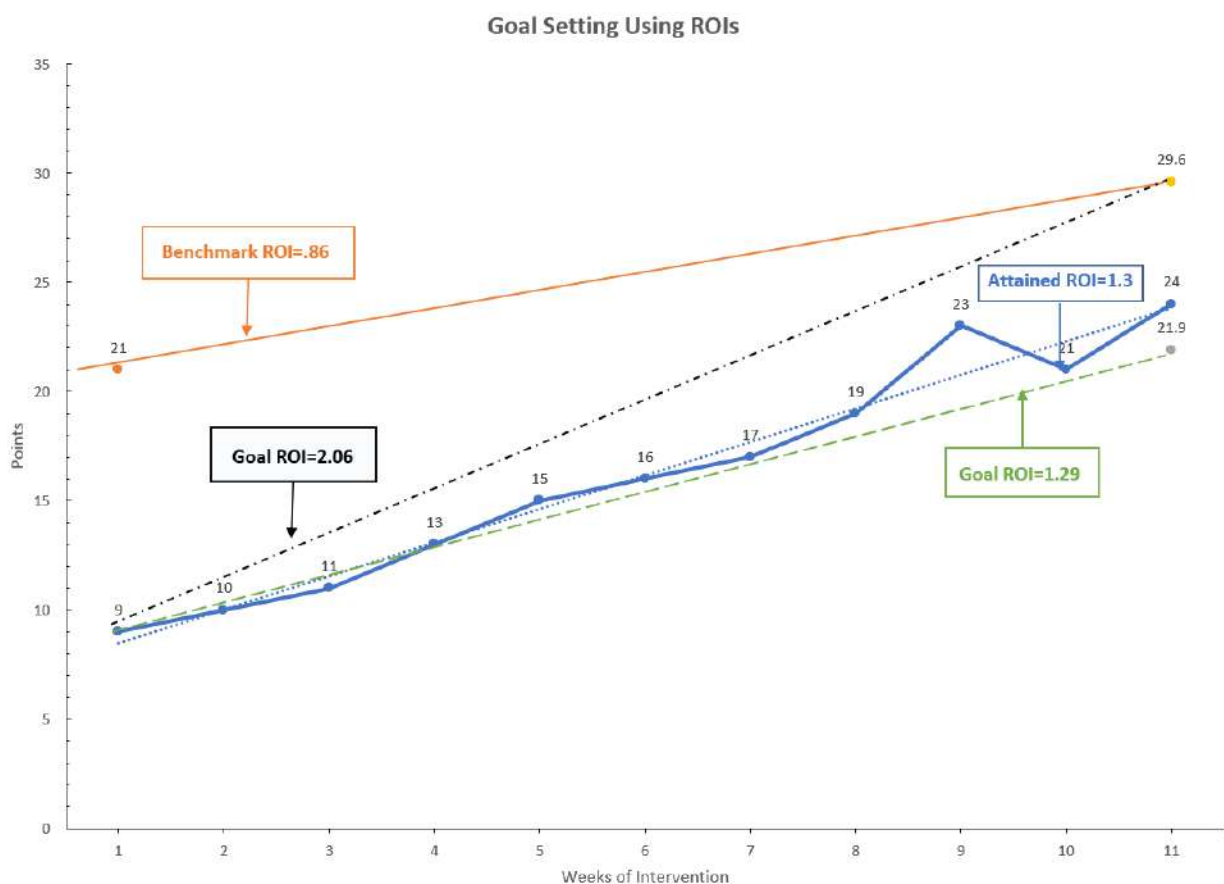
In this example, the student's initial score was 20 CWPM which falls at the 6<sup>th</sup> percentile for first graders in Winter; using the norms table for this assessment, we know that the benchmark (40<sup>th</sup> percentile) for first graders is 27 CWPM. Progress monitoring data across 9 weeks of intervention are represented by the solid line; the student's trend line is represented by the small, dashed line. Two goals were set in this example to illustrate the difference in goal attainability. One goal was set at the 25<sup>th</sup> percentile using Spring norms, which is 40 CWPM at the end of 9 weeks. The goal line connects the student's baseline score of 20 and the end goal of 40 CWPM. A second goal was set at the 40<sup>th</sup> percentile using Spring norms; in this example, the goal is 56 CWPM at the end of 9 weeks. A goal line connects the student's baseline score of 20 and the end goal of 56 CWPM.

Using a trend line analysis, if we compare the student's trend line to the goal line for the 25<sup>th</sup> percentile, we see that the student's trend line is steeper than the goal line. Thus, the student's response to the intervention would be considered sufficient. Using the 4-point rule, we see that the student's last 4 data points (44, 44, 43, 36) are all above the 25<sup>th</sup> percentile goal line, also indicating a sufficient response to intervention. However, if we were to use the goal line for an end goal at the 40<sup>th</sup> percentile, we would determine that the student's response to intervention is not sufficient. The trend line is less steep than the goal line and the last 4 data points are below the goal line. This example illustrates why goals set at the 25<sup>th</sup> percentile are more reasonable than those set at the 40<sup>th</sup> percentile (benchmark) for students with extremely low baseline scores.

Additionally, over the course of 9 weeks of intervention, the student moved from the 6<sup>th</sup> percentile to the 29<sup>th</sup> percentile. The student's ROI was 2.67 CWPM; this far exceeds the average ROI of 1.60 for first graders. Thus, even though the student did not reach benchmark (40<sup>th</sup> percentile) at the end of the 9-week intervention, it is reasonable to conclude that the student's growth did accelerate, the intervention was successful, and the intervention should be continued until the student reaches a level that is deemed acceptable by the team (e.g., grade-level benchmark).

## Figure 2: Goal Setting Using ROIs

This graph illustrates the difference between Benchmark ROIs, Attained ROIs, and Goal ROIs. The data is from 4<sup>th</sup>-grade Math Computation CBM.



In this example, although the student's Attained ROI of 1.3 points per week exceeded the growth that students meeting benchmark made during the same time period (i.e., Benchmark ROI of .86), the student's growth is not enough to close the gap between current and expected achievement in the given time period. The student would have needed a weekly ROI of 2.06 points per week to reach their goal of 29.6 points at the end of 10 weeks. The graph shows that the trend line is below the goal line. Thus, based on an ROI goal of 2.06 points per week, the response to intervention was insufficient. However, two things should be noted. One, the student's trend line was steeper than the goal line; given more time, they might have closed the gap. Based on this scenario, the team might continue the intervention for additional weeks and re-evaluate the progress. Second, the goal ROI of 2.06 points per week might have been overly ambitious and not achievable by this (or most) students. Therefore, in this situation, it might have been better to set an ambitious goal by multiplying the Benchmark ROI by 1.5. Using the formula from page X:

$$(\text{Benchmark ROI} \times 1.5) \times \# \text{ weeks} + \text{Baseline Score}$$

$$(.86 \times 1.5) \times 10 + 9$$

$$(1.29) \times 10 + 9 = \text{Goal of 21.9}$$

Using the formula to calculate an ambitious yet reasonable goal of 21.9 points, the student's Attained ROI of 1.30 is sufficient for them to meet their goal. Using the 4-point rule, we see that the last 4 data points are above the goal line (indicated by long dashes). Although not yet at benchmark, this would be considered a sufficient response to intervention. The team would determine that the intervention should be continued until the student reaches the expected levels.

## Additional Guidance Regarding Goal Setting and Decision-Making

When analyzing graphs to make decisions regarding a student's response to intervention, teams should consider the following:

- Conducting visual analyses of time-series graphs is ineffective if the original goal is not appropriate...for example, if the goal is not ambitious enough or is too ambitious.
- Setting too low of a goal may result in the student meeting the intervention goal but not closing the gap between current performance and grade-level expectations. Therefore, even when a student meets their goal, teams must consider whether the student has closed the gap, and if not, when they are expected to close the gap based on their current trajectory.
- When using off-grade level progress monitoring it is recommended that the trendline be compared to the goal line to determine the adequacy of the student's ROI. In addition, the team should consider the student's data in the context of grade-level expectations (e.g., what level of performance is benchmark or in the average range for same-grade peers).
- Goals should be ambitious, yet feasible. Students with very low baseline scores may take 1-3 years to meet grade level expectations, even with above average growth.
- When evaluating an individual student's ROI, the team should also consider the ROI of other students receiving the same intervention at the same level of intensity.
- The expected rate of improvement should correspond to the intensity of the intervention.
- When a student does not meet their goal, and the goal is determined by the team to be ambitious and feasible, then the intervention should either be intensified or changed altogether. The goal should not be lowered. The National Center on Intensive Intervention provides tools and resources on how to intensify interventions ([How to Intensify Intervention: Intensification Strategies | NCII \(intensiveintervention.org\)](https://www.intensiveintervention.org/implementation/implementation-strategies))

- When a student does not meet their goal, the fidelity of intervention implementation should be examined. The National Center on Intensive Intervention is one source for tools to assess and support fidelity of intervention implementation ([Fidelity Monitoring Tools: Implementation Tools | NCII \(intensiveintervention.org\)](https://www.intensiveintervention.org/implementation))
- A flowchart illustrating the steps in determining a student's response to intervention is appended to this Technical Assistance Paper.

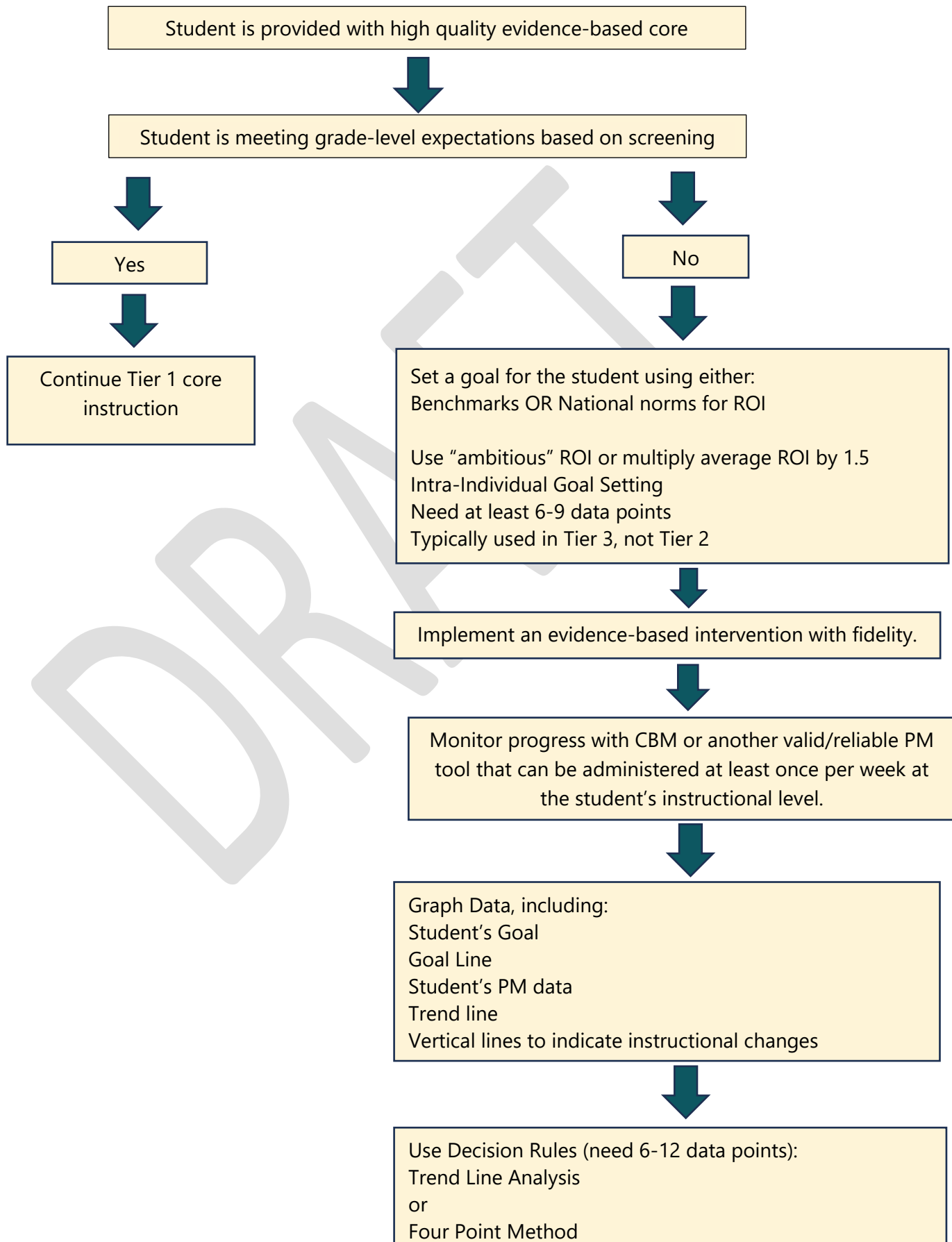
## Sample Written Summary of Rtl Data

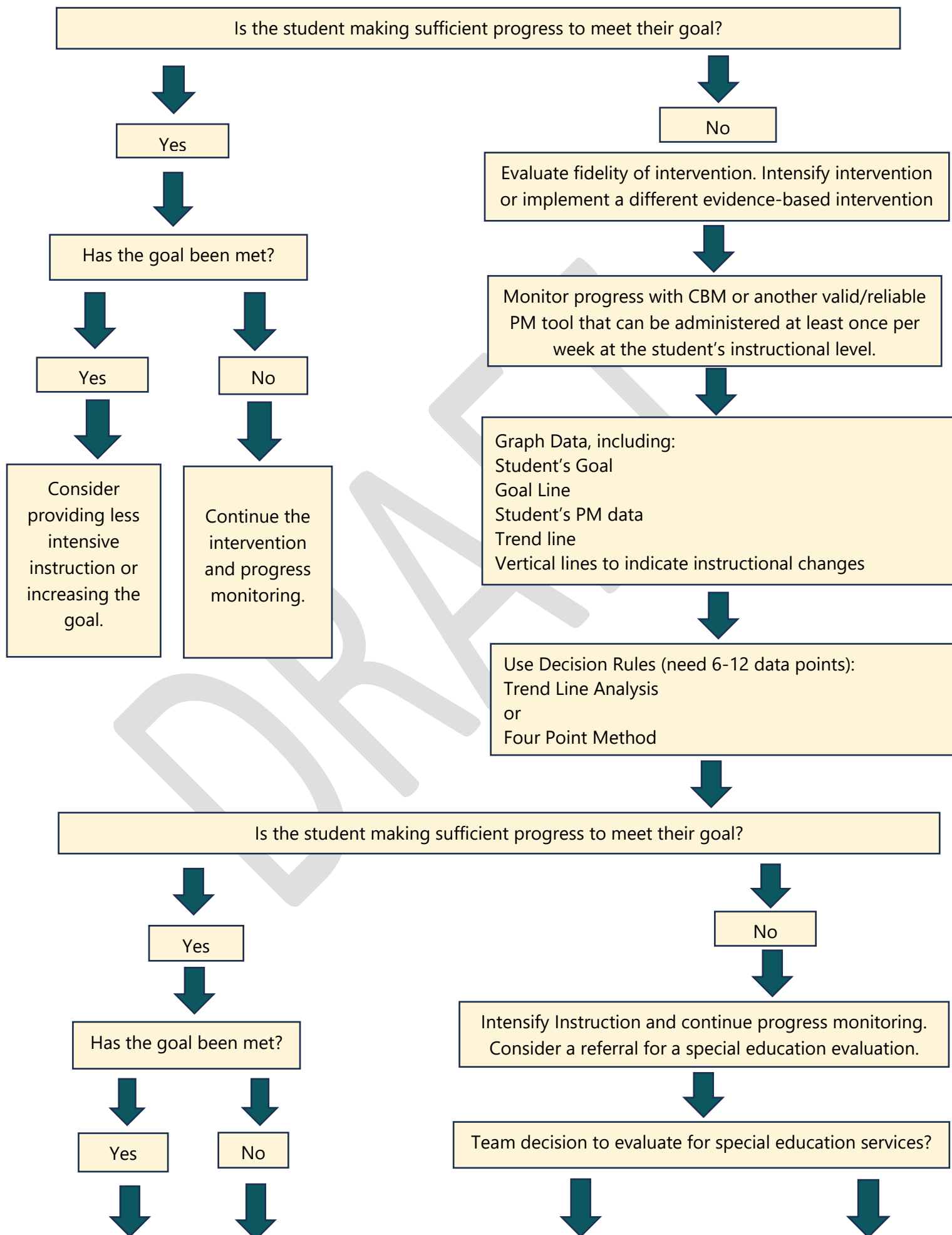
Walter has made insufficient progress during the intervention period. In October, Walter read 20 CWPM on an oral reading fluency CBM passage; the ORF benchmark for 2nd graders in the Fall is 53 CWPM. His baseline CWPM score fell at the 13th percentile. Walter was subsequently identified for a small group Tier 2 reading intervention. After 10 weeks of participation, his CWPM score was 26. His rate of improvement (ROI) during this time period was .60 CWPM growth per week, as compared to the 2nd grade benchmark ROI of .86 CWPM growth per week. In January, Walter began receiving additional 1:1 intervention using explicit, direct instruction that was aligned with his instructional need. At the end of 10 weeks, Walter's score improved to 33 CWPM, with a weekly ROI of .70. If Walter continues at this ROI, in one year he will be reading 51.2 CWPM which is below the 10th percentile for 3rd graders. To reach the end of year benchmark for 2nd graders (86 CWPM), which is in 14 instructional weeks, he would need to increase his ROI to 3.79 CWPM. To reach the 25th percentile for the end of 2nd grade (82 CWPM), he would need to increase his ROI to 3.50. These results suggest that Walter has had an insufficient response to intervention (Rtl) in reading fluency.

## Conclusion

This TAP addressed how to determine if a student responded to scientific research-based interventions. This criterion is the second inclusionary factor when identifying a SLD using the dual discrepancy model and it must co-occur with Inadequate Achievement (see SLD TAP #1), and the exclusionary factors of Ruling out Alternative Primary Factors (SLD TAP #3) and Lack of Appropriate Instruction (SLD TAP #4). The inclusionary and exclusionary factors must be addressed through a comprehensive evaluation (SLD TAP #6) that also includes an observation of the student within instruction and intervention (SLD TAP #5).

## Appendix A:





Consider providing less intensive instruction or increasing the goal.

Continue the intervention and progress monitoring.

Yes



Complete a comprehensive evaluation. Determine SLD eligibility using the Dual Discrepancy inclusionary and exclusionary factors.

No



Intensify instruction as needed and continue to progress monitor.

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## Resources, Evidence, and Tools:

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