# Strategies for Setting Data-Driven Behavioral Individualized Education Program Goals



Authors: Teri A. Marx, PhD, and Faith G. Miller, PhD



# **Strategies for Setting Data-Driven Behavioral Individualized Education Program Goals**

Teri A. Marx, PhD

National Center on Intensive Intervention at the American Institutes for Research

Faith G. Miller, PhD

University of Minnesota-Twin Cities

The authors would like to thank Dr. Chris Riley-Tillman and Dr. Mitchell Yell for their helpful feedback on this guide.

## February 2020

National Center on

## **INTENSIVE INTERVENTION**

at American Institutes for Research

1000 Thomas Jefferson Street NW Washington, DC 20007-3835

www.intensiveintervention.org





## **Contents**

|   | Page |
|---|------|
| Introduction  | 1    |
| What Do Quality Behavioral IEP Goals Include?   | 2    |
| How Do We Know Which Behavior(s) to Address Through an IEP Goal?  | 2    |
| Identify, Prioritize, and Operationalize Behavior(s)  | 3    |
| Identify the Function of the Student's Behavior   | 3    |
| Identify and Operationalize a Functionally Relevant Replacement Behavior That  Can Be Taught and Progress Monitored | 3    |
| What About the Behavior(s) of Concern?  | 4    |
| How Do We Set Goals and Progress Monitor?   | 4    |
| Determine the Measurement   | 5    |
| Establish Baseline of Student Performance   | 5    |
| Set a Measurable and Realistic Goal   | 6    |
| Evaluate Progress Using Graphed Data  | 6    |
| What Are the Common Challenges and How Can We Address Them?   | 6    |
| Resources and Tools   | 6    |
| Glossary  | 8    |

## Introduction

The purpose of this document is to provide an overview of behavioral progress monitoring and goal setting to inform datadriven decision making within tiered support models and individualized education programs (IEPs).

The 2017 Supreme Court decision Endrew F. v. Douglas County School District highlighted the importance of monitoring students' progress toward appropriately ambitious IEP annual goals and making changes to students' educational programs when needed. The process for setting an IEP goal should be closely tied to progress monitoring, a valid and reliable method for providing frequent, ongoing assessment of a student's performance.

## What is the purpose of <u>behavioral</u> <u>progress monitoring?</u>

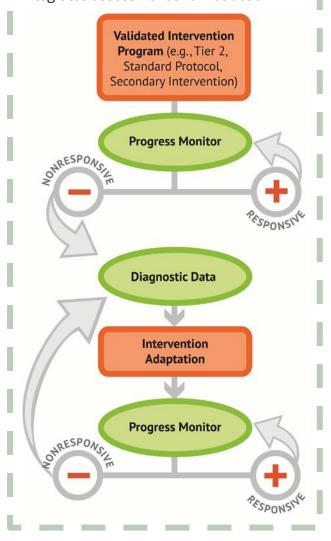
- To collect frequent, repeated, and ongoing information regarding student performance to support timely and defensible data-based decision making about behavioral supports.
- Helps ensure <u>links between</u> <u>assessment and</u> <u>instruction/intervention</u> within databased decision-making processes, including data-based individualization (DBI).

## Why is setting goals important?

We can't determine if what we're doing is working if we don't know what success looks like and track progress across time!

#### What Is DBI?

DBI is an ongoing, systematic process that integrates assessment and instruction.



## What Do Quality Behavioral IEP Goals Include?

| Components <sup>a</sup>            | Examples  | Sample goal language  |  |
|------------------------------------|---|---|--|
| Time frame                         | When mastery will be obtained   | By the end of the academic year,  |  |
| Assessment condition               | Task material/tool<br>Grade level<br>Setting/timing   | When presented a difficult task,  During whole group math instruction,  During social skills instruction,                                   |  |
| Target behavior                    | Observable,<br>functionally relevant<br>replacement behavior  | Student will use a learned strategy to de-escalate  Student will appropriately ask for help  Student will appropriately seek peer attention |  |
| Supports needed<br>(if applicable) | None<br>Reminder<br>Prompt  | Independently  With no more than two reminders needed  When prompted  |  |
| Level of proficiency/<br>timeline  | Accuracy<br>Timeline<br>Number of trials  | From 50% accuracy to 80% accuracy  At least 80% of the instructional period  During 8 of 10 peer interactions,                              |  |
| Measurement                        | Direct observation  Burement  Direct behavior rating observations  (DBR)  As measured bi-weekly, 20-minute systematic doubservations  As measured by DBR  Frequency counts  As measured by daily frequency counts |   |  |

<sup>&</sup>lt;sup>a</sup>Always check with your state or district regulations, policy, and/or guidance first.

## How Do We Know Which Behavior(s) to Address Through an IEP Goal?

Setting behavioral IEP goals for a student with a disability often poses a challenge for educators because behavior(s) of concern may change more frequently than reporting and/or goal review requirements under the Individuals with Disabilities Education Act (IDEA). As a result, the following recommendations may support behavioral IEP goal development:

- The behavior should be observable, measurable, and amenable to change.
- The goal should focus on student behavior, not educator behavior.
- The goal should address the present levels of academic and functional performance identified through data collection (i.e., Antecedents, Behaviors, and Consequences [A, B, and C] checklists; target behavior interviews; classroom observation).
- The goal should focus on a skill the student needs to master.

The steps that follow outline how we can ensure that our IEP goals appropriately address student needs.

## Identify, Prioritize, and Operationalize Behavior(s)

## Identify

First consider the school/ classroom context by answering the following question: Do data suggest that a specific behavior is a broader issue impacting more than one student?

- If so, consider <u>adjusting the</u> classroom environment.
- If not, <u>collect additional</u>
   <u>information</u> about <u>Antecedents</u>,
   Behaviors, and Consequences.

#### **Prioritize**

If a student demonstrates multiple behaviors of concern, prioritize which behavior(s) should be addressed (e.g., high intensity, increased frequency, dangerous, or selfinjurious).

#### **Operationalize**

Practice defining behaviors of concern in observable and measurable terms.

- Delineate boundaries

   (i.e., anchored
   examples and
   nonexamples).
- Aggression is hitting.
   Aggression is not patting peer on back/high five.

## Identify the **Function** of the Student's Behavior

- Why is the student engaging in the behavior?
  - Is it to get something (e.g., attention from peers/ teacher)?
  - Is it to avoid something (e.g., difficult task)?
  - Is it because the student doesn't have the necessary skills (e.g., academic, functional, or social-emotional)?
- Consider these <u>Common Problem Behaviors and Some</u> <u>Usual Suspects for Functional Antecedents and</u> <u>Consequences.</u>

## Identify and Operationalize a Functionally Relevant Replacement Behavior That Can Be Taught and Progress Monitored

- Replacement behaviors are observable and teachable behaviors.
- Replacement behaviors address the same function as a student's behavior of concern but in a more socially acceptable way.
- Replacement behaviors are measurable.
  - This may require operationally defining the replacement behavior (including creating anchored examples and nonexamples).

#### Remember!

Behaviors are not just problematic to others, like disruptive behavior. They also include behaviors that are problematic to the student, such as internalizing/withdrawing; social skills, organizational, or attention deficits; or a lack of engagement.

#### **Important Reminders!**

IEP goals should focus on the replacement behaviors.

#### Example:

Miranda will increase the frequency of raising her hand in class.

#### Nonexample:

Miranda will decrease the frequency of loud outbursts in class.

- Why is this a nonexample? Although we certainly want loud outbursts to decrease (and can continue to measure this target behavior), an IEP goal should focus on what we want the student to learn and be able to do after a skill/replacement behavior is taught to the student.
- Some behaviors (e.g., escape/avoidance) may be reduced or eliminated solely by addressing academic deficits. In these instances, a team may determine that monitoring academic performance on the IEP is sufficient.

## What About the Behavior(s) of Concern?

A behavioral IEP goal should focus on an observable replacement behavior, but we can simultaneously monitor the student's behavior of concern to determine if/when a change to the student's program is needed. Collecting data on both behaviors of concern and replacement behaviors also allows the IEP team to provide more timely information to parents and families.

# How Do We Set Goals and Progress Monitor?

#### **Determine the Measurement**

- <u>Tool</u>/approach (e.g., observation, DBR)
- Scale for measurement (e.g., 1–10 rating, frequency count, percentage of time)
- Frequency of data collection (e.g., hourly, daily, weekly)
- Context for assessment (e.g., setting, individual responsible)
- Decision/evaluation rules (i.e., how will we know if the student is responsive? And by when?)

## Tool Highlight: Direct Behavior Rating (DBR)

- DBR is an evidence-based and feasible method for collecting data on student behavior that merges a rating scale approach and direct observation.
- DBR is used repeatedly to represent behavior that occurs during a specified period of time (e.g., 4 weeks) and under specific and similar conditions (e.g., after first period).

For more information, see <a href="https://www.dbr.education.uconn.edu/assessment">https://www.dbr.education.uconn.edu/assessment</a>.



<u>Directions</u>: Place a mark along the line that best reflects the <u>percentage of total time</u> the student exhibited each target behavior. Note that the percentages do not need to total 100% across behaviors since some behaviors may co-occur.

#### **Establish Baseline of Student Performance**

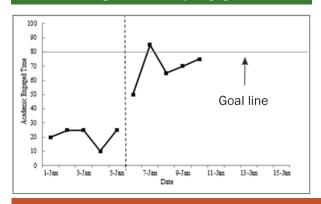
Unless there is an ethical reason to begin immediate intervention, we should collect at least five data points to establish baseline performance. Ideally, these data should be stable; highly variable data may suggest a need to collect additional baseline data and revisit the operationally defined behavior(s) and anchors for accuracy.



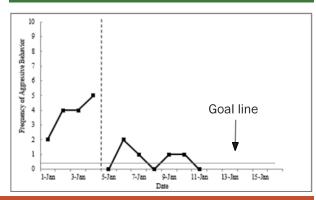
#### Set a Measurable and Realistic Goal

We should set a long-term goal (e.g., an annual goal in an IEP) at approximately 80%–90% accuracy/frequently (for behaviors we want to increase) or 10%–20% (for behaviors we want to decrease)—or at a rate/level that is commensurate with typical peers' performance. We may start with measuring progress at a lower rate/level (e.g., 60%) and increase the goal because the student consistently demonstrates that he or she is meeting the goal at a lower rate/level. Goal changes should be communicated with the student's team, including the student and his or her parent/family.





#### Decreasing Frequency of Aggressive Behavior



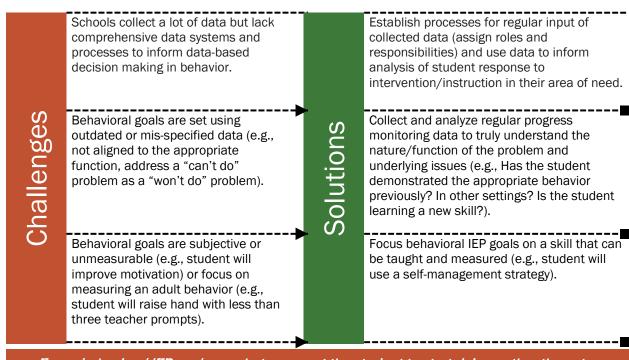
Always include a goal line on the graph to help you visualize progress!

- The goal should be monitored with enough frequency to determine progress and make timely instructional/intervention decisions.
- The goal should be measured using an objective, valid, and reliable measure (e.g., DBR, systematic direct observation) rather than a more subjective measure (e.g., teacher anecdotal notes).
- The goal should be realistic, yet ambitious.
  - If peers aren't expected to perform with 100% accuracy/frequency, we shouldn't expect that rate from students with disabilities.
  - In many cases, setting a goal at 50% accuracy/frequency is basically saying that the behavior will happen by mere chance alone. We need to raise expectations for student performance to a rate commensurate with peers.

## **Evaluate Progress Using Graphed Data**

- If you are trying to decrease the rate of a problem behavior (e.g., aggression, hitting, kicking), we should expect to see the behavior decrease at a rate/level commensurate with how peers are performing. No student is perfect 100% of the time.
- If it is a behavior that we are trying to increase (e.g., use of a coping strategy, academic engagement), we should expect to see the behavior increase at a rate/level commensurate with how peers are performing.
- If the student is meeting his or her goal consistently at the initial review date, consider
  - gradually increasing the goal, or
  - gradually fading supports but continuing to collect data.
- If the student is not making adequate progress toward his or her goal, consider the following:
  - Review data to adapt or intensify instruction/intervention.
  - Change the reinforcer or increase the schedule of reinforcement.
  - Revisit A, B, C data to ensure the intervention is addressing the correct function.
- Interpret student responsiveness to intervention by analyzing graphed data (postintervention comparison to baseline performance) for variability, level, and trends.

## What Are the Common Challenges and How Can We Address Them?



Focus behavioral IEP goals on what you want the student to start doing, rather than stop

## **Resources and Tools**

NCII Behavior Progress Monitoring Tools. The National Center on Intensive Intervention (NCII) has developed tools charts that are published to assist educators and families in becoming informed consumers who can select academic and behavioral progress monitoring tools. These charts display expert ratings on the technical rigor of assessments. The submission process is voluntary, and reviews of all eligible submissions are posted on the chart.

Monitoring Student Progress for Behavioral Interventions. This module focuses on behavioral progress monitoring within the context of the DBI process and addresses (a) methods available for behavioral progress monitoring, including but not limited to DBR, and (b) using progress monitoring data to make decisions about behavioral interventions.

Recommendations and Resources for Preparing Educators in the Endrew Era. In this webinar, Drs. Mitch Yell and David Bateman provide an overview of Endrew's impact on individualized instruction for students with disabilities and share six recommendations for preparing educators to meet the clarified requirements under Endrew. Drs. Tessie Bailey and Teri Marx illustrate how NCII resources and technical assistance supports can assist states, local agencies, and educators in addressing these recommendations and improve the design and delivery of individualized instruction in academics and behavior.

Behavior Support for Intensive Intervention. This course content is designed to support faculty and professional development providers with instructing preservice and in-service educators who are developing and/or refining their implementation of behavior support in intensive intervention. Module 6 is particularly helpful in describing how to define, measure, and monitor behavior, whereas Module 7 explains how to use that data to inform decision making in the classroom.

IRIS Module: IEPs: Developing High-Quality Individualized Education Programs. This module details the process of developing high-quality IEPs for students with disabilities. The module discusses the requirements for IEPs as outlined in the IDEA, with implications of the Supreme Court's ruling in Endrew F. v. Douglas County School District.

IRIS Module: IEPs: How Administrators Can Support the Development and Implementation of High-Quality IEPs. This module is designed for school administrators and offers guidance on how to support and facilitate the development and implementation of high-quality IEPs, including the monitoring of student progress.

## **Glossary**

Annual Goal. In the IEP, annual goals are "academic and functional goals designed to meet the child's needs that result from the child's disability to enable the child to be involved in and make progress in the general education curriculum" [Sec. 300.320(a)(2)(i)(A), IDEA Regulations, 2006]. An annual goal generally includes three parts: conditions under which the goal will be achieved, the behavior that will need to be demonstrated, and the criteria for mastery of the goal.

Condition. This specifies the setting, accommodations, and description of the assessment method or the manner in which progress toward the goal is measured.

Direct Behavior Rating (DBR). A method for measuring a student's behavior that involves rating the behavior following a specified observation period.

Function. The purpose that the behavior serves for the individual (e.g., obtaining or avoiding something).

Goal Line. A line on the student's progress monitoring graph that connects the data point representing the student's baseline performance to his or her goal.

Individualized Education Program (IEP). A written document that is developed, reviewed, and revised per IDEA that outlines the special education and related services specifically designed to meet the unique educational needs of a student with a disability.

Level. The average value of a set of scores or ratings. You want to see an increase/decrease (depending on the measured skill) in a behavior and between the baseline intervention phases.

Present Level of Academic and Functional Performance (PLAAFP). The PLAAFP is a statement in the IEP that describes "how the child's disability affects the child's involvement and progress in the general education curriculum (i.e., the same curriculum as for nondisabled children)" [Sec. 300.320(a)(1)(i), IDEA, 2017] and includes baseline data for the annual goals.

Progress Monitoring. Progress monitoring is repeated measurement of student performance used to inform instruction of individual students in general and special education.

Reliable. Reliability is the extent to which scores are accurate and consistent.

Replacement Behavior. The behavior the educator wants the student to engage in.

Systematic Direct Observation. The process of watching a person or environment for a period of time and systematically recording behavior.

**Target Behavior.** In an IEP goal, the behavior identifies the performance being monitored and reflects an action that can be directly observed and is measurable.

**Trend.** The direction or slope of the data path, which must be considered in light of the target behavior (i.e., increasing engagement is good; increasing disruptiveness is not). When analyzing graphed data for trends, you also may consider the steepness of the trends—or how quickly data are increasing or decreasing.

**Validity.** The extent to which scores represent the underlying construct. In other words, the extent to which the score means something (i.e., measures what it purports to measure).

Variability. Spread or consistency of the data helps determine if performance is stable or variable. Highly variable data may indicate that your tool isn't accurately measuring the student's skills, there are implementation fidelity issues, and/or that the behavior you selected to measure isn't appropriate.



#### About the American Institutes for Research

Established in 1946, with headquarters in Washington, D.C., the American Institutes for Research (AIR) is a nonpartisan, not-for-profit organization that conducts behavioral and social science research and delivers technical assistance, both domestically and internationally, in the areas of education, health, and the workforce. For more information, visit <a href="https://www.air.org">www.air.org</a>.



1000 Thomas Jefferson Street NW Washington, DC 20007-3835 202.403.5000

Copyright © 2020 American Institutes for Research®. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, website display, or other electronic or mechanical methods, without the prior written permission of the American Institutes for Research. For permission requests, please use the Contact Us form on <a href="https://www.air.org">www.air.org</a>.

This document was produced under U.S. Department of Education, Office of Special Education Programs (OSEP) Grant No. HH326Q160001. Celia Rosenquist is the OSEP project officer. The views expressed herein do not necessarily represent the positions or policies of the U.S. Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service, or enterprise mentioned in this publication is intended or should be inferred. This product is public domain. Authorization to reproduce it in whole or in part is granted. Although permission to reprint this publication is not necessary, the citation should be: Marx, T. A., & Miller, F. G. (2020). Strategies for setting data-driven behavioral individualized education program goals. Washington, DC: U.S. Department of Education, Office of Special Education Programs, National Center on Intensive Intervention.



Tessie Rose Bailey, PhD, and Zachary Weingarten, EdD



National Center on INTENSIVE INTERVENTION

# **Strategies for Setting High-Quality Academic Individualized Education Program Goals**

Tessie Rose Bailey, PhD, and Zachary Weingarten, EdD

National Center on Intensive Intervention at the American Institutes for Research

The authors would like to thank Dr. Mitchell Yell for his helpful feedback on this guide.

This document was produced under U.S. Department of Education, Office of Special Education Programs (OSEP) Grant No. HH326Q160001. Celia Rosenquist is the OSEP project officer. The views expressed herein do not necessarily represent the positions or policies of the U.S. Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service, or enterprise mentioned in this publication is intended or should be inferred. This product is public domain. Authorization to reproduce it in whole or in part is granted. Although permission to reprint this publication is not necessary, the citation should be: Bailey, T. R., & Weingarten, Z. (2019). Strategies for setting high-quality academic individualized education program goals. Washington, DC: National Center on Intensive Intervention, Office of Special Education Programs, U.S. Department of Education.

## Introduction

The 2017 Supreme Court decision Endrew F. v. Douglas County School District highlighted the importance of monitoring students' progress toward appropriately challenging individualized educational program (IEP) annual goals and making changes to students' educational programs when needed. The process for setting an IEP goal should be closely tied to progress monitoring, a valid, reliable method for providing frequent, ongoing assessment of a student's performance.

"To meet its substantive obligation under the IDEA, a school must offer an IEP reasonably calculated to enable a child to make progress appropriate in light of the child's circumstances."

(Endrew, 2017, p. 16)

In this guide, we explain how educators can establish IEP goals that are measurable, ambitious, and appropriate in light of the student's circumstances. Four important steps are required for setting a valid goal for individual student performance: selecting a measure, establishing baseline performance, choosing a strategy for setting the goal, and writing a measurable goal. Although this guide presents the steps that educators can take to set appropriate IEP goals, all members of the IEP team, including families, should be involved in discussions about setting the goal.

## What does IDEA say about IEP goals?

Under Sec. 300.320(a)(2)(i-ii), the Individuals with Disabilities Education Act (IDEA) requires that the IEP include a "statement of measurable annual goals," including academic and functional goals that

- "(A) Meet the child's needs that result from the child's disability to enable the child to be involved in and make progress in the general education curriculum; and
- (B) Meet each of the child's other educational needs that result from the child's disability."

For children with disabilities who take alternate assessments aligned to alternate academic achievement standards, the statement of measurable annual goals also will include "a description of benchmarks or short-term objectives" [IDEA, Sec. 300.320(a)(2)(ii)].

Although IDEA does not specify the process to be used for establishing an IEP goal, using the following steps will help you write annual goals that fit these criteria, as well as the standards clarified in the Endrew decision.

## STEP 1. Select a Measure

Before you establish an annual IEP goal statement, you should determine the measurable and verifiable target behavior and identify the tool that will be used to assess the student's progress on that behavior. The tool should be a reliable and valid measure of academic performance, sensitive to changes in student performance over time, and designed for frequent and ongoing use. Exhibit 1 presents examples of the target academic behaviors that IEP team members can use to set an IEP goal.

Exhibit 1. Sample Target Behaviors for Reading, Math, and Written Language

| Academic Domain  | Target Behavior   |
|------------------|---|
| Reading          | <ul> <li>Letter naming fluency</li> </ul>                                     |
|                  | <ul> <li>Letter sound fluency</li> </ul>                                      |
|                  | <ul> <li>Phoneme segmentation fluency</li> </ul>                              |
|                  | <ul> <li>Nonsense word fluency</li> </ul>                                     |
|                  | <ul> <li>Word identification fluency</li> </ul>                               |
|                  | <ul> <li>Passage reading fluency, also called oral reading fluency</li> </ul> |
|                  | Maze or maze fluency  |
| Math             | Oral counting   |
|                  | <ul> <li>Number identification</li> </ul>                                     |
|                  | <ul> <li>Quantity discrimination</li> </ul>                                   |
|                  | <ul><li>Missing number</li></ul>  |
|                  | <ul> <li>Math computation</li> </ul>  |
|                  | <ul> <li>Number concepts and applications</li> </ul>                          |
| Written Language | Total words written   |
|                  | <ul><li>Words spelled correctly</li></ul>                                     |
|                  | <ul> <li>Correct word sequence</li> </ul>                                     |
|                  | Correct letter sequence   |

Educators can use two types of tools to set an IEP goal: (1) single-skill measures and (2) general outcome measures (GOMs).

#### Single-Skill Measures

Single-skill measures, also known as mastery measures, are used to assess students' mastery of discrete skills (e.g., two-digit addition) or short-term instructional objectives. To use skill-specific measures, educators typically develop an instructional sequence and give assessments that match each step in that sequence. For example, a teacher may wish to assess students' mastery of multidigit addition and then, on a separate test, assess students' mastery of multidigit subtraction. Single-skill measures may be useful for measuring progress on short-term instructional objectives,



particularly for students with significant cognitive challenges for whom instruction may be focused on mastering discrete skills. However, single-skill measures are less useful for monitoring students' maintenance of skills and progress across the school year on a broad set of skills, and they have limitations related to their psychometric properties and capacity to model student growth (Fuchs & Fuchs, 1999).

#### GOMs

GOMs are indicators of general skill success that reflect overall competence on an outcome. GOM probes sample all skills that will be taught in the annual grade-level curriculum, or they focus

on a skill that reflects overall competence in a domain (e.g., reading connected text). A common example of a GOM is curriculum-based measurement (CBM). GOMs address many of the limitations of single-skill measures because they describe students' growth and development over time, providing information on students' current performance and their rate of development. GOMs are simple and efficient to use and are sensitive to students' improvement. In addition, publishers of these assessments typically provide information about local or national norms that allow students' performance to be compared with peers.

Regardless of the type of measure used, any tool used for setting an IEP goal should meet the following criteria (Center on Response to Intervention, 2014). The tool should:

- 1. Have a sufficient number of alternate forms of equal and controlled difficulty to allow for progress monitoring at recommended intervals based on intervention level.
- 2. Specify minimum acceptable growth.
- 3. Provide benchmarks for minimum acceptable end-of-year performance.
- 4. Have available reliability and validity information for the performance-level score and for growth for students with intensive needs.

Information on the National Center on Intensive Intervention (NCII) Academic Progress Monitoring Tools Chart can be used to assess the extent to which tools meet these criteria.

## STEP 2. Establish Baseline Performance

After the IEP team has selected an appropriate measure, their next step when setting an IEP goal is to establish the student's baseline score. The baseline indicates the student's initial performance on the target academic skill. Baseline scores should be established using the same tool that will be used to collect ongoing progress monitoring data.

The IEP team should include the student's baseline score in the **present levels of academic achievement and functional performance (PLAAFP)** statement in the student's IEP. When writing the PLAAFP, the team also should include data that demonstrate how this student's baseline performance compares with same-grade peers. One strategy for including this information is to compare the student's baseline score to the average score or benchmark of same-grade students at the same marking period.

**PLAAFP baseline statement example:** "When given a standardized third-grade level reading passage at winter benchmarking, Chris currently reads 55 words correct per minute, with 93% accuracy. In comparison, the expected winter benchmark performance for third-grade students is 97 words read correct per minute with at least 93% accuracy."

## THREE OPTIONS FOR ESTABLISHING BASELINE

- Identify the student's score from universal screening and use that score as the baseline.
- Administer three progress monitoring probes in one testing session and select the median score.
- Calculate the average of three consecutive progress monitoring scores collected during separate testing sessions.

## STEP 3. Choose a Strategy for Setting the Goal

After the IEP team has selected a measure and established a baseline, the next step is to choose a strategy for setting the goal. Research has established three valid approaches to setting a goal for student academic performance. A summary of the three options is available on page 9 of this guide. We provide considerations for selecting a strategy based on the student's academic performance; however, each of the strategies may be used with any student. The IEP team should decide which strategy to select based on the student's individual characteristics and needs.

## OPTION 1. Benchmarks for Middleor End-of-Year Performance

The first option for setting an IEP goal is to use the end- or middle-of-year benchmark score for the selected tool. This strategy is the most straightforward approach to setting a goal and may be appropriate for many students, especially those in younger grades and those who are performing at or close to grade level. Although the end-of-year benchmark is preferred, some IEPs align better with middle-of-year benchmarking.

#### USING END- OR MIDDLE-OF-YEAR BENCHMARKS

#### **Advantages:**

- Easy-to-use when the progress monitoring tool provides benchmarks.
- Tracks progress toward grade-level expectations.
- Efficient for setting goals for large numbers of students.

#### **Considerations:**

 May not be appropriate for students significantly below benchmark. To determine appropriateness, calculate the weekly growth rate required to meet the goal and compare it to typical rates of improvement from national norms. Most published progress monitoring tools provide benchmarks within their data system. The NCII Academic Progress Monitoring Tools Chart provides information about the availability of benchmarks for reviewed academic progress monitoring tools under the Usability tab (see Exhibit 2).

**Exhibit 2. NCII Progress Monitoring Tools Chart** 



For measures that do not have published benchmarks, educators may find benchmarks by searching the literature. For example, a summary of oral reading fluency (ORF) norms compiled by Hasbrouck and Tindal (2017) is available on the NCII website here. This table shows ORF norms for fall, winter, and spring scores at the 10th, 25th, 50th, 75th, and 90th percentiles for first through sixth grades.

## OPTION 2. National Norms for Rate of Improvement

The second option for setting an IEP goal is to use national norms for the weekly rate of improvement (ROI). National norms for ROI are established based on the typical growth of students from a national sample. Many progress monitoring tools and data systems provide national norms for ROI for each grade and will help educators calculate goals based on this information. The NCII Academic Progress Monitoring Tools Chart provides information about the availability of published ROIs for tools reviewed on the chart under the Usability tab (see Exhibit 2).

If national norms for ROI are not available for the tool that you have selected, consider estimating local norms for ROI through statistical modeling if there is an adequate sample. Potential challenges with local norms include small sample sizes, difficulty calculating the norms, and the possibility of creating lower expectations for students if the student population is performing at a lower level than national averages. In addition, using local norms for ROI may contribute to overor underidentification of students in need of additional support. National norms for ROI address these challenges by including large sample sizes and established cut scores.

When selecting ROIs, determine whether the proposed rate of growth is typical or ambitious. Typical growth often refers to the amount of growth

#### **USING NATIONAL NORMS FOR ROI**

#### **Advantages:**

- Provides a mechanism for writing an ambitious but realistic goal based on the student's initial performance.
- Useful when the benchmark is unrealistic during the IEP or intervention time frame, but the student is expected to make growth comparable to peers.

#### **Considerations:**

- If a student is performing below grade-level peers, matching the normative ROI may maintain an achievement gap in some cases.
- Some progress monitoring tools provide recommendations for "ambitious" ROIs.
- When national norms are not available, consider estimating local norms.

that students would make given typical instruction. Ambitious growth, conversely, would indicate more than typical growth. For students below benchmark, more than typical growth is often required to close the gap between the student's performance and their peers' performance.

#### Setting a Goal Using National Norms for ROI

- 1. Identify the ROI for the grade and tool being used.
- Multiply the ROI by the number of weeks in the instructional or IEP period. (Typically, weeks in which instruction is not provided are not included.)
- 3. Add the baseline score.

Formula: ROI x # Weeks + Baseline Score = Goal

#### Exhibit 3. Illustration of Using ROI to Set a Math Goal



#### OPTION 3. Intra-Individual Framework

For a small group of students with intensive academic needs, using benchmarks or national norms for ROI may result in unrealistic goals. In these cases, educators may consider a third option for setting the goal, which uses an intra-individual framework. Instead of using benchmarks or norms for ROI, this approach uses the student's previous growth rate to calculate an individualized goal.

To use this option, collect six to nine data points to identify the student's baseline ROI or slope for the target skill. Because the student's performance is being compared with his or her previous performance and not a national or local norm, enough data must be collected to demonstrate the student's existing performance level and slope.

#### Setting a Goal Using an Intra-Individual Framework

To set a goal using the intra-individual framework, use the following formula:

#### Goal = Slope x 1.5 x # Weeks + Baseline Score

## USING AN INTRA-INDIVIDUAL FRAMEWORK

#### **Advantages:**

 Useful when students are performing far below grade level and standard growth rates are not appropriate.

#### **Considerations:**

- May be difficult to understand and calculate and, therefore, may require more training and support.
- Requires collection of six to nine data points before setting the goal.
- May not be necessary for students performing at or near grade level.

Graphing software can help you calculate the slope. If graphing software is not available, you can estimate the slope using the following procedure:

#### Slope = 3rd median - 1st median / # data points - 1

Exhibit 4 demonstrates how this approach to setting a goal may be used. In this example, the educator has collected the following scores on a math concepts progress monitoring tool over 8 weeks: **2**, **3**, **5**, **5**, **6**, **7**, **4**.

Exhibit 4. Steps for Setting a Goal Using the Intra-Individual Framework

| 1. Calculate the student's baseline score.   | Mean of last three scores $(6 + 7 + 4) / 3 = 5.67$                |
|--|---|
| Divide the data into three roughly equal groups and find the median of the first and third groups. | Median of first three scores = 3 Median of last three scores = 6  |
| 3. Calculate the student's slope.  | Slope Calculation:<br>3rd median – 1st median / # data points – 1 |
|  | 6 - 3 = 3<br>3 / (8 - 1) = 3 / 7 = .43                            |
|  | Slope = .43   |
| 4. Multiply slope by 1.5.  | .43 x 1.5 = .645  |
| 5. Multiply by number of weeks left in intervention.   | .645 x 10 = 6.45  |
| 6. Add to the student's baseline score.  | 6.45 + 5.67 = 12.12<br>Goal = 12                                  |

## STEP 4. Write a Measurable Goal

Quality IEP goals address the condition, or context, in which the skill will be performed, target behavior, and level of proficiency/time frame. Following is a sample template for IEP goal writing. Exhibit 5 includes examples of content for each component of the goal.

When given [grade level and tool], the student will [observable behavior and goal] [level of proficiency and time frame].

Sample IEP Goal: When given a standardized third-grade level reading probe, Michael will read 99 words read correctly in 1 minute with 95% accuracy by spring benchmarking.

#### IS IT MEASURABLE? **CHECK YOURSELF!**

- Is it quantifiable?
- Can it be observed?
- Can data be collected systematically?
- Can the collected data be graphed?

Exhibit 5. Examples of IEP Condition, Target Behavior, and Proficiency Levels

| Component                            | May include                                       | Examples   |
|--------------------------------------|---|--|
| Condition                            | Material/Tool<br>Grade level<br>Setting<br>Timing | When given 30 first-grade sight words When given a third-grade reading passage When provided a sixth-grade-level story starter and 4 minutes to write When given a kindergarten missing-number probe with a four-number sequence |
| Target behavior                      | Observable behavior<br>Target goal                | Student will read 30 of 30 sight words<br>Student will read 60 words correctly   |
| Level of<br>proficiency/<br>Timeline | Accuracy<br>Timeline<br>Number of trials          | 95% accuracy<br>Three consecutive probes<br>By spring benchmarking   |

## Conclusion

Developing appropriate IEP goals is an essential step in ensuring students with disabilities receive an IEP reasonably calculated to enable them to make appropriate progress in light of their circumstances. As outlined in this guide, the steps for setting a goal include (1) selecting a measure, (2) establishing baseline performance, (3) choosing a strategy for setting the goal, and (4) writing a measurable goal. No hard-and-fast rule exists for determining which method to use when developing IEP goals. Educators must rely on their clinical decision-making skills to do so. We recommend that each option for setting the goal be presented to the IEP team for consideration. In setting the IEP goal, teams will need to consider several factors, including previous performance and the age and grade of student.

After goals are created, the next step is to develop and implement an IEP progress-monitoring plan. The purpose of the plan is to regularly monitor students' progress toward their IEP goals and communicate this progress regularly with families and educators supporting the student. Teams will use the graphed progress-monitoring data and validated data analysis strategies to determine students' responsiveness to core and specially designed instruction and to adapt instructional programming to maximize efficiency and ensure that individual student needs are addressed. NCII (www.intensiveintervention.org) offers numerous resources to support educators in developing and implementing this plan.



#### **BUILD YOUR SKILLS:**

Setting academic performance goals is an essential skill for all educators that requires practice and feedback to become proficient. Increase your skills by completing Appendices A through C with a partner. Compare your answers and discuss which strategy you would use given the student's age and level of performance.

## **INTENSIVE INTERVENTION**

at American Institutes for Research





## **Overview of Goal-Setting Strategies**

This handout describes three validated goal-setting strategies educators can use to set individualized education program (IEP) and intervention goals.

#### Option 1. Benchmarks for Middle- or End-of-Year Performance

- How to Set the Goal: Identify the grade-level winter or end-of-year benchmark (typically provided by the publisher) and use for goal.
- Advantages:
  - Easy-to-use when progress monitoring tool provides benchmarks.
  - Tracks progress toward grade-level expectations.
  - Efficient for setting goals for large numbers of students.
- Considerations:
  - May not be appropriate for students significantly below benchmark. To determine appropriateness, calculate the weekly growth rate required to meet the goal and compare it to typical rates of improvement from national norms.

#### **Option 2. National Norms for Rate of Improvement (ROI)**

 How to Set the Goal: Identify the national norm for ROI for the student's grade level and the number of weeks left in the instructional period.
 Use the formula to the right to calculate the goal.

ROI × # Weeks + Baseline Score = GOAL

- Advantages:
  - Provides a mechanism for writing an ambitious but realistic goal based on the student's initial performance.
  - Useful when the benchmark is unrealistic during the individualized education program (IEP) or intervention time frame, but the student is expected to make growth comparable to peers.
- Considerations:
  - If a student is performing below grade-level peers, matching the normative ROI may maintain an achievement gap in some cases.
  - Some progress monitoring tools provide recommendations for "ambitious" ROIs.
  - When national norms are not available, consider estimating local norms for ROI through statistical modeling if there is an adequate sample.

#### Option 3. Intra-Individual Framework

- How to Set the Goal: Calculate the student's individual growth rate based on past performance, and use the formula to the right to determine the goal.
- Advantages:
  - Provides a valid strategy for setting a goal in situations where students are performing far below grade level and typical growth rates are not appropriate.

Goal = Slope x 1.5 x # Weeks + Baseline Score Slope Calculation:

3rd median – 1st median / # data points – 1

#### Considerations:

- May be difficult to understand and calculate and, therefore, require more training and support.
- Requires collection of six to nine data points before setting the goal.
- May not be necessary for students performing at or near grade level.

## **Questions and Answers**

- 1. Does setting behavior IEP goals involve the same process as setting academic IEP goals?
  - a. Although behavior goals must also be observable and measurable, several important considerations are unique to setting behavior goals. For more information, see the NCII guide on setting behavior goals.
- 2. How is setting an IEP goal different from setting an academic performance goal for a student without an IEP?
  - a. The strategies for setting an academic goal are the same whether or not a student has an IEP. One difference is that an IEP goal is set within the context of the IEP team, which must include family participation. Intervention planning teams may or may not include families when setting a goal for a student's academic performance. In addition, IEPs are legal documents and the measurable goals are essential to showing progress, as required by the Supreme Court's standard in Endrew F.
- 3. Should we use measures that are provided within an intervention or teacher-developed measures to set goals using benchmarking or ROI procedures?
  - a. Validated approaches to setting an IEP goal require the use of valid and reliable measures. Many teacher-developed measures, like spelling tests or other common formative assessments, have not been validated for individual progress monitoring. In addition, measures used as part of a specific intervention are typically designed to measure progress within the intervention and not on a broader construct like reading or math performance. Using within-intervention progress monitoring tools may result in the IEP team making incorrect conclusions about student progress toward grade-level standards or expectations. The best recommendation is to use progress monitoring tools that are curriculum independent, such as GOMs.
- 4. For students performing below grade level, should I progress monitor on their instructional level or their chronological grade level?
  - a. Goals for academic performance may be set below grade level, but the decision must be an IEP team decision. In general, IEP and intervention goals should be written at the level the student would be expected to perform at the end of the instructional period (i.e., 1 year for annual goals). For example, a fifth-grade student with a current instructional reading level of second grade is unlikely to meet typical end-of-year expectations for fifth grade. At the same time, setting the IEP goal at his second-grade instructional level would not assist him in making adequate progress toward grade-level expectations. As a result, the IEP team may decide, based on previous performance and baseline data, to use one of the strategies described in this guide to establish an appropriately ambitious IEP goal that would be written at the third-grade level. The teacher may begin with instruction at the current instructional level but would increase the instructional intensity and level over time to ensure the student meets the annual goal set at a third-grade level.
- 5. Do IEPs need to "close the gap" or provide "appropriate progress?" If a student has a disability and is performing at grade level, is that considered appropriate progress?

- a. Each student receiving special education services is unique, and decisions related to educational benefit and progress, therefore, must be individualized— "the essential function of an IEP is to set out a plan for pursuing academic and functional advancement" (Endrew F., 2017, p. 11; emphasis added). Drs. Yell and Bateman discuss the concept of educational benefit and progress during the webinar Recommendations and Resources for Preparing Educators in the Endrew Era between 21:16-31:00. They share how educators can conduct a Free Appropriate Public Education analysis by answering the following questions:
  - i. In the development of an IEP has the IEP team complied with the procedures set forth in IDEA?
  - ii. Is the IEP reasonably calculated to enable the child to make progress that is appropriate in light of his or her circumstances?
- 6. What is the importance of graphing the goal and goal line?
  - a. Some teachers create graphs that have student scores but no goal or goal line. This approach is problematic because, without a goal or goal line, we cannot assess whether the student is making progress at a sufficient rate. The goal line visibly represents the rate of progress required for a student to reach the selected goal (e.g., reading 120 words per minute or counting to 100 by multiples of 5). A graph that includes only student scores illustrates a general performance pattern but not in relation to the goal or goal line. (See NCRTI Brief 2: Common Progress Monitoring Graph Omissions: Missing Goal and Goal Line.)

## **Resources and Tools**

Recommendations and Resources for Preparing Educators in the Endrew Era. In this webinar, Drs. Mitch Yell and David Bateman provide an overview of Endrew's impact on individualized instruction for students with disabilities and share six recommendations for preparing educators to meet the clarified requirements under Endrew. Drs. Tessie Bailey and Teri Marx illustrate how NCII resources and technical assistance supports can assist states, local agencies, and educators in addressing these recommendations and improve design and delivery of individualized instruction in academics and behavior.

ASK THE EXPERT: Why Might Our Progress Monitoring Tools Focus on Skills That We Are Not Teaching? Watch and listen as Michelle Hosp, associate professor in the College of Education at the University of Massachusetts Amherst, discusses why your progress monitoring tool may not focus on the skills that you are teaching.

NCII PROFESSIONAL DEVELOPMENT MODULE: Using Academic Progress Monitoring for Individualized Instructional Planning (Module 2). This training module demonstrates how academic progress monitoring fits into the data-based individualization process by (a) providing approaches and tools for academic progress monitoring and (b) showing how to use progress monitoring data to set ambitious goals, make instructional decisions, and plan programs for individual students with intensive needs.

NCII Academic Progress Monitoring Tools. NCII has developed tools charts that are published to assist educators and families in becoming informed consumers who can select academic and behavioral progress monitoring tools. These charts display expert ratings on the technical rigor of assessments. The submission process is voluntary, and reviews of all eligible submissions are posted on the chart.

IRIS Module: IEPs: Developing High-Quality Individualized Education Programs. This module details the process of developing high-quality IEPs for students with disabilities. The module discusses the requirements for IEPs as outlined in IDEA, with implications of the Supreme Court's ruling in Endrew F. v. Douglas County School District (est. completion time: 3 hours).

IRIS Module: IEPs: How Administrators Can Support the Development and Implementation of High-Quality IEPs. This module is designed for school administrators and offers guidance on how to support and facilitate the development and implementation of high-quality IEPs, including the monitoring of student progress.

## **Glossary**

Annual Goal. In the IEP, annual goals are "academic and functional goals designed to meet the child's needs that result from the child's disability to enable the child to be involved in and make progress in the general education curriculum" [Sec. 300.320(a)(2)(i), IDEA, 2017]. An annual goal generally includes three parts: condition under which the goal will be achieved, the behavior that will need to be demonstrated, and the criteria for mastery of the goal.

Benchmark Score. Specifies the level of performance expected at a time point, usually the middle or end of the grade, by grade level.

Condition. This specifies the setting, accommodations, and description of the assessment method or the manner in which progress toward the goal is measured.

Curriculum-Based Measurement (CBM). A type of general outcome measure that includes all skills that will be taught in a school's annual grade-level curriculum.

General Outcome Measure. A type of standardized assessment that is meant to be given frequently to measure students' performance in a broad construct or outcome, such as oral reading fluency or math concepts.

Goal Line. A line on the student's progress monitoring graph that connects the data point representing the student's baseline performance to their goal.

Individualized Education Program (IEP). A written document that is developed, reviewed, and revised per IDEA 2004 that outlines the special education and related services specifically designed to meet the unique educational needs of a student with a disability.

Intra-Individual Framework. A method for calculating an individualized goal that incorporates information about the student's previous rate of improvement in the intervention and target growth rate.

Mastery Measure. Indexes a student's successive mastery of a hierarchy of objectives or discrete skills.

National Norms for Rate of improvement (ROI). A method for calculating a goal that uses information about the typical weekly growth rates from large and nationally representative samples of students.

Norms. Norms are standards of test performance derived by administering the test to a large representative sample of students. Individual student results are compared with the established norms.

Present Level of Academic and Functional Performance (PLAAFP). The PLAAFP is a statement in the IEP that describes "how the child's disability affects the child's involvement and progress in the general education curriculum (i.e., the same curriculum as for nondisabled children) [Sec. 300.320(a)(1)(ii), IDEA, 2017] and includes baseline data for the annual goals.

Progress Monitoring. Progress monitoring is repeated measurement of academic performance used to inform instruction of individual students in general and special education.

Reliability. Reliability is the extent to which scores are accurate and consistent.

**Single-Skill Measure.** Indexes a student's successive mastery of a hierarchy of objectives or discrete skills.

Target Behavior. In an IEP goal, the behavior identifies the performance being monitored, and reflects an action that can be directly observed and is measurable.

Validity. Validity is the extent to which scores represent the underlying construct. In other words, the extent to which the score means something.

## Appendix A. Practice Activity: Setting a Goal Using Benchmarks and Norms for Rate of Improvement

Directions: Use the information provided below to practice setting an individualized education program goal using benchmarks and norms for rate of improvement (ROI).

Jane is a first-grade student who is beginning to fall behind her peers in reading. She read 23 correct words per minute on the first-grade Reading Connected Text winter benchmark assessment. There are currently 16 weeks left in the school year. Use the information provided in this handout to set goals for Jane using the benchmark and norms for rate of improvement (ROI) methods.

| Grade | Task                        | End-of-Year Benchmark <sup>a</sup> | Rate of Improvement |
|-------|-----------------------------|------------------------------------|---------------------|
| К     | Word identification fluency | 40 sounds per minute               | 1.0                 |
| 1     | Reading connected text      | 60 correct words per minute        | 1.8                 |
| 2     | Reading connected text      | 75 correct words per minute        | 1.5                 |

<sup>&</sup>lt;sup>a</sup> These assessments and norms are for illustrative purposes only. For information about your tool, visit the National Center on Intensive Intervention's Academic Progress Monitoring Tools Chart, http://www.intensiveintervention.org/chart/progress-monitoring.

#### **Worksheet for Calculating Goals**

| Benchmark  | Norms for Weekly Rate of Improvement (ROI)   |
|--|--|
| Instructions:  | Formula:   |
| Using the information and chart in this handout, identify the appropriate grade-level end-of-year benchmark. | ROI x # Weeks + Baseline Score = GOAL  |
|  | Steps:   |
|  | 1. Gather Data  ROI from norms table:  # of weeks left in instructional period:  Baseline score: |
|  | 2. Calculate   |
|  | ROI # Weeks Baseline Goal  |
| Goal =   | Goal =   |

| Reflection:   |
|---|
| Which goal would you select for this student? What is your rationale?   |
|   |
| Write an annual goal statement using your selected goal. Be sure to include the condition, target behavior, and level of proficiency. |
|   |
|   |
| Notes   |
|   |
|   |
|   |
|   |
|   |

## Appendix B. Practice Activity: Setting a Goal Using the Intra-Individual Framework

Directions: Use the information provided below to practice setting an individualized education program goal using the intra-individual framework.

Jack is a fourth grader who has significant challenges in reading. On the fall fourth-grade screening, he scored 18 words read correctly, which is considered well below benchmark. His teacher conducted a surveylevel assessment and determined that his instructional level is second grade. His teacher selected weekly reading connected text at the second-grade level to monitor his progress. Use the following information to help the teacher create a goal based on the intra-individual framework.

#### Information you will need:

Weeks <u>remaining</u> in the semester: 10

Data points over the last 8 weeks: 37, 36, 38, 41, 40, 42, 44, 48

Baseline: Average of last three data points

#### **Worksheet for Calculating Goals**

| Intra-Individual Framework Me   | ethod  |
|---|--|
| Formula:  | Guide  |
| Slope x 1.5 x # Weeks + Baseline Score = GOAL   | Slope: Student rate of improvement.  |
| Slope = () /7  Last Median First Median # Baseline Weeks                                  | Median: Take the middle score of three scores.  If data are collected weekly: # baseline weeks |
| Steps:  | = # data points - 1  |
| 1. Gather Data Slope from above: # of weeks left in instructional period: Baseline score: | ·  |
| 2. Calculate  |  |
| x 1.5 x + =<br>Slope  |  |
| Goal =  |  |

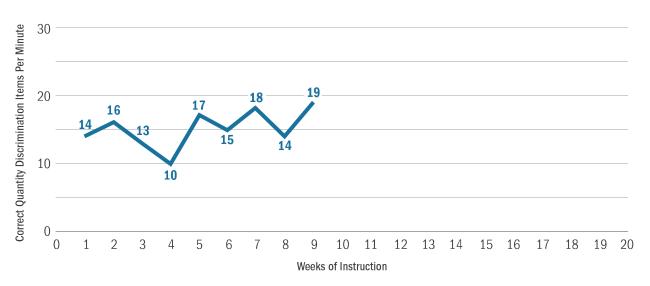
| Reflection   |
|--|
| What considerations would you take into account before using this goal-setting strategy?   |
|  |
| Write an annual goal statement using your selected goal. Be sure to include the condition, target behavior and level of proficiency. |
|  |
|  |
| Notes  |
|  |
|  |
|  |
|  |
|  |

## Appendix C. Activity to Practice Setting Goals

Create a graph with the provided math computation scores for Lincoln. Assume there are 20 weeks of intervention for Lincoln.

- a. Lincoln's first nine scores: 14, 16, 13, 10, 17, 15, 18, 14, 19
- b. Benchmark for quantity discrimination: 25
- c. Rate of improvement (ROI) or slope for quantity discrimination: .5

#### **Lincoln's Quantity Discrimination Scores**



- 1. Using Lincoln's graph, mark the goal using the benchmark method and label it with a "B."
- 2. Using Lincoln's graph, mark the goal using the slope or ROI method and label it with "R" using the provided information.
  - a. Locate the ROI.
  - b. Multiply ROI by the number of weeks left in the intervention.
  - c. Add the product to the student's baseline of progress monitoring scores.
  - d. Mark goal on student graph with an "R."
  - e. Draw a goal line from baseline progress monitoring scores to goal.
- 3. Using Lincoln's graph, mark the goal using the intra-individual framework and label with an "I."
  - a. Estimate the student's slope using the formula: 3rd median 1st median / # of data points 1.
  - b. Multiply slope by 1.5.
  - c. Add the product to student's baseline score.
  - d. Mark goal on student graph and label with an "I."
  - e. Draw goal line from baseline progress monitoring scores to goal.

## Appendix D. Answer Key

- 1. Goals for Jane:
  - a. Benchmark method: 60 words correct per minute
  - b. Norms for ROI method: 52 words correct per minute
- 2. Goal for Jack:
  - a. Intra-individual method: 60 words read correctly
- 3. Goals for Lincoln:
  - a. Benchmark method: 25
  - b. Norms for ROI method: 22.5
  - c. Intra-individual method: 18

## References

Center on Response to Intervention. (2014). RTI fidelity of implementation rubric. Retrieved from https://rti4success.org/sites/default/files/RTI Fidelity Rubric.pdf

Endrew F. v. Douglas County School District, 580 U.S. \_\_\_\_ (2017).

Fuchs, L. S., & Fuchs, D. (1999). Monitoring student progress toward the development of reading competence: A review of three forms of classroom-based assessment. School Psychology Review, 28(4), 659-671.

Hasbrouck, J., & Tindal, G. (2017). An update to compiled ORF norms (Technical Report No. 1702). Eugene: University of Oregon, Behavioral Research and Teaching.

Individuals with Disabilities Education Act. (2017). 20 U.S.C. §§ 1400 et seq.

National Center on Intensive Intervention. (2019). 2019 call for submissions of academic progress monitoring tools. Washington, DC: U.S. Department of Education, Office of Special Education Programs, National Center on Intensive Intervention. Retrieved from <a href="https://intensiveintervention.org/sites/">https://intensiveintervention.org/sites/</a> default/files/NCII AcadProgMonitoring CallForSubmissions Aug2019.pdf



## About the American Institutes for Research

Established in 1946, with headquarters in Washington, D.C., the American Institutes for Research (AIR) is a nonpartisan, not-for-profit organization that conducts behavioral and social science research and delivers technical assistance, both domestically and internationally, in the areas of education, health, and the workforce. For more information, visit <a href="https://www.air.org">www.air.org</a>.



1000 Thomas Jefferson Street NW Washington, DC 20007-3835 202.403.5000

www.air.org