Strategies for Setting High-Quality Academic Individualized Education Program Goals

Tessie Rose Bailey, PhD, and Zachary Weingarten, EdD

AIR®
American Institutes for Research®

National Center on
INTENSIVE INTERVENTION
at American Institutes for Research

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	▪ Letter naming fluency ▪ Letter sound fluency ▪ Phoneme segmentation fluency ▪ Nonsense word fluency ▪ Word identification fluency ▪ Passage reading fluency, also called oral reading fluency ▪ Maze or maze fluency
Math	▪ Oral counting ▪ Number identification ▪ Quantity discrimination ▪ Missing number ▪ Math computation ▪ Number concepts and applications
Written Language	▪ Total words written ▪ Words spelled correctly ▪ Correct word sequence ▪ 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 **validit**y 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

1. Identify the student's score from universal screening and use that score as the baseline.
2. Administer three progress monitoring probes in one testing session and select the median score.
3. 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 Middle- or 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:

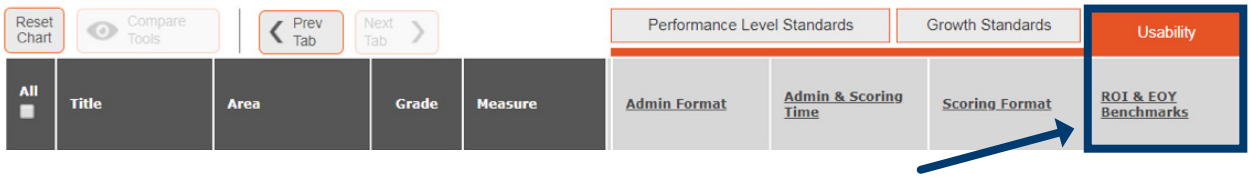
- Easy-to-use when the progress monitoring tool provides benchmarks.
- Tracks progress toward grade-level expectations.
- Efficient for setting goals for large numbers of students.

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 over- or 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 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.

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.

Setting a Goal Using National Norms for ROI

1. Identify the ROI for the grade and tool being used.
2. 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.

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.

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

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, 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**
2. 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:** **3rd median – 1st median / # data points – 1** **6 – 3 = 3** **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** **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 Grade level Setting 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 Target goal	Student will read 30 of 30 sight words... Student will read 60 words correctly...
Level of proficiency/ Timeline	Accuracy Timeline Number of trials	95% accuracy Three consecutive probes 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.

National Center on
INTENSIVE INTERVENTION
at American Institutes for Research

AIR® American Institutes for Research®

IDEAs that Work
U.S. Office of Special Education Programs

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.

Goal = Slope x 1.5 x # Weeks + Baseline Score

Slope Calculation:
3rd median – 1st median / # data points – 1

- 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.
- 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[a]	Rate of Improvement
K	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

[a] 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: Using the information and chart in this handout, identify the appropriate grade-level end-of-year benchmark.	**Formula:** ROI x # Weeks + Baseline Score = GOAL **Steps:** 1. Gather Data ROI from norms table: _____ # of weeks left in instructional period: _____ Baseline score: _____ 2. Calculate _____ x _____ + _____ = _____ 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 survey-level 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 remaining 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 Method

Formula:

Slope x 1.5 x # Weeks + Baseline Score = GOAL

Slope = (_____ - _____) / _____7_____
Last Median First Median # Baseline Weeks

Steps:

1. Gather Data
   Slope from above: _____
   # of weeks left in instructional period: _____
   Baseline score: _____
2. Calculate
   _____ x 1.5 x _____ + _____ = _____
   Slope # Weeks Baseline Goal

Guide

Slope: Student rate of improvement.

Median: Take the middle score of three scores.

If data are collected weekly: # baseline weeks = # data points - 1

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

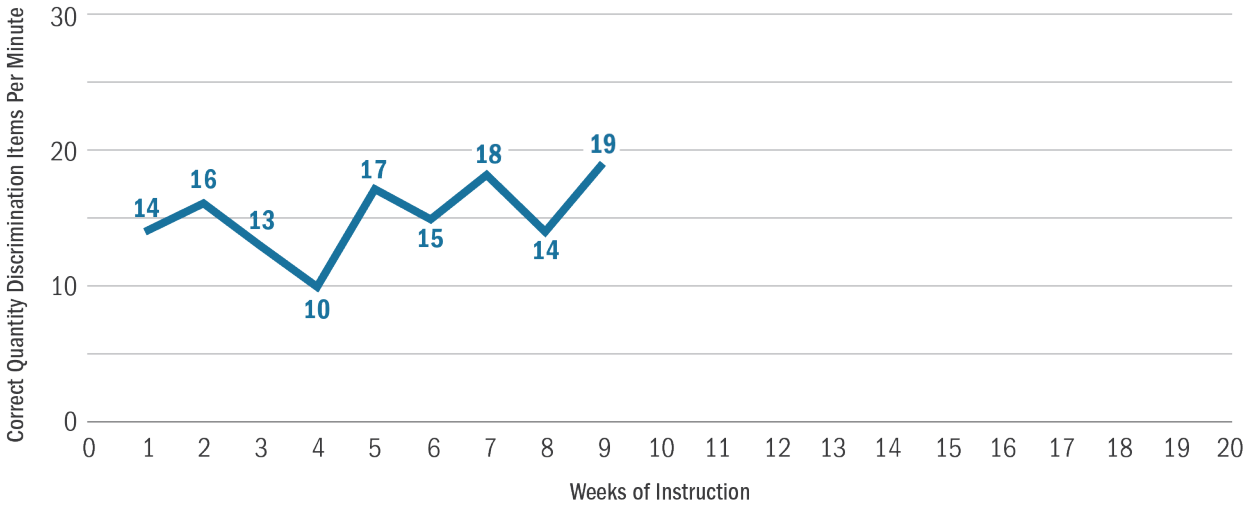
Create a graph with the provided math computation scores for Lincoln. Assume there are 20 weeks of intervention for Lincoln.

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 https://intensiveintervention.org/sites/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 www.air.org.

AIR®
AMERICAN INSTITUTES FOR RESEARCH®

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

www.air.org

Copyright © 2019 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 www.air.org.

9438_9/19