Strategies for Setting High-Quality Academic Individualized Education Program Goals

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

The 2017 Supreme Court decision Endrew F. v. Douglas County School District RE-1 highlighted the importance of monitoring students’ progress toward appropriately challenging individualized education 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 (Endrew F. v. Douglas County School District RE-1, 2017).

In this guide, we explain how educators can establish academic IEP goals that are measurable, ambitious, and appropriate in light of a student’s circumstances. There are four important steps 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 for an individual student.

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 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 F. decision.

STEP 1. Select a Measure

Before you establish an annual IEP goal statement, determine the measurable and verifiable target behavior and identify the tool for assessing 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 across time, and designed for frequent and ongoing use. Exhibit 1 presents examples of the target academic behaviors that IEP team members may consider using when setting academic IEP goals.
Exhibit 1. Sample Target Behaviors for Reading, Mathematics, and Written Language

<table>
<thead>
<tr>
<th>Academic domain</th>
<th>Target academic behavior</th>
<th>Recommended grade levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>▪ Letter naming fluency</td>
<td>K</td>
</tr>
<tr>
<td></td>
<td>▪ Letter sound fluency</td>
<td>K</td>
</tr>
<tr>
<td></td>
<td>▪ Phoneme segmentation fluency</td>
<td>K</td>
</tr>
<tr>
<td></td>
<td>▪ Nonsense word fluency</td>
<td>Late K–1</td>
</tr>
<tr>
<td></td>
<td>▪ Word identification fluency</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>▪ Passage reading fluency, also called oral reading fluency</td>
<td>Late 1–4</td>
</tr>
<tr>
<td></td>
<td>▪ Maze or maze fluency</td>
<td>4+</td>
</tr>
<tr>
<td>Mathematics</td>
<td>▪ Oral counting</td>
<td>K–1</td>
</tr>
<tr>
<td></td>
<td>▪ Number identification</td>
<td>K–1</td>
</tr>
<tr>
<td></td>
<td>▪ Quantity discrimination</td>
<td>K–1</td>
</tr>
<tr>
<td></td>
<td>▪ Missing number</td>
<td>K–1</td>
</tr>
<tr>
<td></td>
<td>▪ Mathematical computation</td>
<td>1–8</td>
</tr>
<tr>
<td></td>
<td>▪ Number concepts and applications</td>
<td>2–8</td>
</tr>
<tr>
<td>Written language</td>
<td>▪ Total words written</td>
<td>1–6</td>
</tr>
<tr>
<td></td>
<td>▪ Words spelled correctly</td>
<td>1–6</td>
</tr>
<tr>
<td></td>
<td>▪ Correct word sequence</td>
<td>1–6</td>
</tr>
<tr>
<td></td>
<td>▪ Correct letter sequence</td>
<td>1–6</td>
</tr>
</tbody>
</table>

IEP teams can use two types of tools to set an IEP goal: (a) **single-skill measures** and (b) **general outcome measures** (GOMs).

**Single-Skill Measures**

Single-skill measures 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 focus 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).

**General Outcome Measures**

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). GOMs address many of the limitations of single-
skill measures because they describe students’ growth and development across 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 the comparison of students’ performance with peers.

**NOTE:** Although both single-skill measures and GOMs may be used to set an academic IEP goal, the goal-setting strategies described in this guide are relevant for setting an IEP goal with GOMs and should not be used with single-skill measures. Single-skill IEP goals require statements concerning the number of objectives to be met by the end of the school year, a process that is beyond the scope of this guide.

Regardless of the type of measure selected, any tool used for setting an IEP goal should meet the following criteria (Center on Multi-Tiered System of Supports, 2021). The tool should

- have a sufficient number of alternate forms of equal and controlled difficulty to allow for progress monitoring at recommended intervals based on the intervention level,
- specify minimum acceptable growth,
- provide benchmarks for minimum acceptable end-of-year performance, and,
- provide 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’s (NCII’s) 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, the 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 statement, 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. In comparison, the expected winter benchmark performance for third-grade students is 97 words read correct per minute.”

### THREE OPTIONS FOR ESTABLISHING BASELINE PERFORMANCE

1. Identify the student’s score from universal screening and use that score as the baseline.
2. Administer three progress monitoring probes and use the median score as the baseline.
3. Administer three progress monitoring probes and use the average score as the baseline.
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 using GOMs. We provide considerations for selecting a strategy based on the student’s academic performance; however, each strategy 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 End- or Middle-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.

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).

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. A summary table shows ORF norms for fall, winter, and spring scores at the 10th, 25th, 50th, 75th, and 90th percentiles for first through sixth grades.

Exhibit 2. NCII Progress Monitoring Tools Chart

<table>
<thead>
<tr>
<th>Compare Tools</th>
<th>Reset Chart</th>
<th>Performance Level Standards</th>
<th>Growth Standards</th>
<th>Usability</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Title</td>
<td>Area</td>
<td>Grade</td>
<td>Measure Type</td>
</tr>
</tbody>
</table>

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 the benchmark. To determine appropriateness, calculate the weekly growth rate required to meet the goal and compare it with typical rates of improvement from national norms.
- For some students whose present levels or current performance indicate grade-level expectations may not be appropriate, an off-grade level benchmark may be appropriately ambitious. IEP teams should consider students’ individual circumstances when making these decisions.
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 you 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. 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 performing below benchmark, more than typical growth often is necessary 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.
2. Multiply the ROI by the number of weeks until the end of the year or instructional period. (Typically, weeks in which instruction does not occur, such as holiday breaks, are not included.)
3. Add the product (from Step 2) to the baseline score.

Exhibit 3. Illustration of Using ROI to Set a Mathematics Goal

| ROI = 2 Digits/Week | × | 10 Weeks | + | Baseline = 30 Digits | = | Goal = 50 Digits |

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.

Formula: ROI × # Weeks + Baseline Score = 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 ambitious but individualized goal.

To use this option, collect six to nine data points to identify the student’s baseline ROI or slope of improvement for the target skill. Because the student’s performance is being compared with his or her previous performance instead of a national or local norm, six to nine data points must be collected to accurately index the student’s slope.

Setting a Goal Using an Intra-Individual Framework

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

\[
\text{Goal} = \text{Slope} \times 1.5 \times \# \text{ Weeks} + \text{Baseline Score}
\]

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

\[
\text{Slope} = \frac{\text{3rd median} - \text{1st median}}{\# \text{ data points} - 1}
\]

Exhibit 4 demonstrates how to use this approach to setting a goal. In this example, the educator has collected the following scores on a mathematical concepts progress monitoring tool during an 8-week period: 2, 3, 5, 5, 5, 6, 7, 4.


<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Divide the data into three roughly equal groups and find the median of the first and third groups.</td>
<td>Median of first three scores = 3&lt;br&gt;Median of last three scores = 6</td>
</tr>
</tbody>
</table>
| 2.   | Calculate the student’s slope. | Slope calculation: <br>\[
\frac{\text{3rd median} - \text{1st median}}{\# \text{ data points} - 1} = \frac{6 - 3}{8 - 1} = \frac{3}{7} = \frac{3}{7} = .43
\]
|      |   | Slope = .43 |
| 3.   | Multiply the slope by 1.5.a | \( .43 \times 1.5 = .645 \) |
| 4.   | Multiply by number of weeks left in intervention (10). | \( .645 \times 10 = 6.45 \) |
| 5.   | Add to student’s baseline score (median of last the last three scores). | \( 6.45 + 6 = 12.45 \)<br>Goal = 12 |

a In this case, to close the achievement gap, the student needs to make 50% more progress than what they are currently making. Therefore, we multiply the student’s current slope of improvement by 1.5. The team may decide on a different multiplier to set an achievable and ambitious goal for the student.

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

1 The number of data points is subtracted by 1 to represent the weeks of instruction between the first and last data points.
STEP 4. Write a Measurable Goal

Quality IEP goals address the condition, or context, in which the skill will be performed, the target behavior, and level of proficiency/time frame. This section provides 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 by spring benchmarking.

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

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

**Conclusion**

Developing appropriate IEP goals is an essential step in ensuring that 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 creating the goals, 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 offers numerous resources to support educators in developing and implementing this plan.

Questions and Answers

1. Does setting behavior IEP goals involve the same process as setting academic IEP goals?
   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?
   The strategies for setting an academic goal are the same, whether a student has or does not have an IEP. One difference is that an IEP goal is set annually 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. Can we use measures provided within an intervention or teacher-developed measures to set goals using benchmarking or ROI procedures?
   NCII recommends the use of valid and reliable assessment measures when setting and monitoring progress toward IEP goals. Many teacher-developed measures, such as 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 typically measure progress within the intervention, not on a broader measure of performance in the relevant domain. Using within-intervention progress monitoring tools may result in the IEP team making incorrect conclusions about a student’s progress toward grade-level standards or expectations. For this reason, NCII recommends using progress monitoring tools that are curriculum independent, such as GOMs.

4. For students performing below grade level, should I use progress monitoring assessments at their instructional level or their chronological grade level?
   Goals for academic performance may be set below grade level, but the decision must be made by the student’s IEP team and based on the student’s individual circumstances. 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. It is important to use progress monitoring measures that are sensitive to changes in student performance, and, therefore, grade-level progress monitoring assessments may not be appropriate for some students.
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?

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). Dr. Mitchell Yell and Dr. David Bateman discuss the concept of educational benefit and progress during the webinar *Recommendations and Resources for Preparing Educators in the Endrew F. Era* between 21:16 and 31:00. They share how educators can conduct a free appropriate public education analysis by answering the following questions:

- In the development of an IEP, has the IEP team complied with the procedures set forth in IDEA?
- 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?

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, they cannot assess whether the student’s rate of improvement is adequate. 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, without referencing a goal, illustrates a general performance pattern without helping parents or teachers and other personnel interpret progress toward the IEP or intervention goal.
References


Resources and Tools

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

**IEP Tip Sheet: Measurable Annual Goals.** This tip sheet introduces information about developing measurable annual goals. It includes a brief summary of federal regulations, tips for implementation, and additional resources.

**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 Chart.** 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.

**Promoting Progress: The Role of the Goal.** This webinar provides an overview of the IDEA requirements for measurable annual goals, explains the critical role that goals play in the development of a high-quality IEP, shares essential elements for goal writing, and identifies tips for developing goals that promote progress for students with disabilities.

**The What and Why of Measurable Annual Goals.** This course includes a self-paced module that provides an overview of measurable annual goals, describes three critical elements of measurable goals, highlights tips for developing goals that promote progress, and shares resources to learn more.

**Promoting Progress: Considerations and Resources for Developing the Monitoring Plan for IEP Goals.** This webinar provides key considerations for developing a monitoring plan aligned with IDEA requirements, highlights resources for professional learning, and helps with selecting technically adequate progress monitoring measures.
**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: the 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 on a specific measure at a specific point in time, usually the end of the present grade level.

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

**General Outcome Measure (GOM).** A type of standardized assessment that indexes students’ performance on a broad construct or outcome, such as words read correctly in connected text within a fixed time or the accuracy of placing whole and rationale numbers on a number line.

**Goal Line.** A line on students’ progress monitoring graphs that connects the data point representing students’ baseline performance to their goal.

**Individualized Education Program (IEP).** A written document developed, reviewed, and revised at least annually per IDEA 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 the target growth rate.

**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.** 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 Achievement and Functional Performance (PLAAFP Statement).** 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.** Repeated measurement of student performance used to inform instruction of individual students in general and special education.

**Reliability.** The consistency of a set of scores designed to measure the same thing.

**Single-Skill Measure.**Indexes a student’s mastery of a single objective or discrete skill or the rate of a student’s mastery through a learning progression of objectives.

**Target Behavior.** Identifies the performance monitored and reflects a behavior that can be directly observed and is measurable.

**Validity.** The extent to which scores represent the underlying construct in a meaningful way.
Appendix A. Practice Activity: Setting a Goal Using Benchmarks and Norms for Rate of Improvement

*Directions:* Use the following information to practice setting an IEP goal using benchmarks and norms for 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 to set goals for Jane using the benchmark and norms for ROI methods.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Task</th>
<th>End-of-year benchmark</th>
<th>Rate of improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>Word identification fluency</td>
<td>40 sounds per minute</td>
<td>1.0</td>
</tr>
<tr>
<td>1</td>
<td>Reading connected text</td>
<td>60 correct words per minute</td>
<td>1.8</td>
</tr>
<tr>
<td>2</td>
<td>Reading connected text</td>
<td>75 correct words per minute</td>
<td>1.5</td>
</tr>
</tbody>
</table>

*Note:* These assessments and norms are for illustrative purposes only. For information about your tool, visit NCII’s [Academic Progress Monitoring Tools Chart](#).

**Worksheet for Calculating Goals**

Instructions: Using the information and the chart, identify the appropriate grade-level end-of-year benchmark.

Formula: \[ \text{ROI} \times \# \text{ Weeks} + \text{Baseline Score} = \text{Goal} \]

Steps:
1. Gather data
   - ROI from norms table: _________
   - # of weeks left in instructional period: ______
   - Baseline score: ______

2. Calculate
   \[ \frac{\text{ROI}}{\# \text{ Weeks}} + \text{Baseline} = \text{Goal} \]

Goal = _________
Reflection

Which goal would you select for this student? What is your rationale?

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Write an annual goal statement using your selected goal. Be sure to include the condition, target behavior, and level of proficiency.

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

Directions: Use the following information to practice setting an IEP 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 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 during the last 8 weeks: 37, 36, 38, 41, 40, 42, 44, 48.
- Baseline: median of last three data points.

Worksheet for Calculating Goals

<table>
<thead>
<tr>
<th>Intra-Individual Framework Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formula:</strong> Slope × 1.5 × # Weeks + Baseline Score = Goal</td>
</tr>
<tr>
<td>Slope = (First Median - Last Median) / # Baseline Weeks</td>
</tr>
<tr>
<td><strong>Steps:</strong> 1. Gather data</td>
</tr>
</tbody>
</table>
| Slope from above: \_
| # of weeks left in instructional period: \_
| Baseline score: \_
| 2. Calculate |
| \_
| \_
| \_
| \_
| Slope \_
| # Weeks \_
| Baseline \_
| Goal \_
| **Guide** |

Slope: Student rate of improvement
First Median: The middle value of the first three data points collected
Last Median: The middle value of the last three data points collected
Baseline weeks: If data are collected weekly: # baseline weeks = # data points – 1
# Weeks: The number of weeks remaining in the instructional period

Goal = \_

---

Worksheet for Calculating Goals

<table>
<thead>
<tr>
<th>Intra-Individual Framework Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formula:</strong> Slope × 1.5 × # Weeks + Baseline Score = Goal</td>
</tr>
<tr>
<td>Slope = (First Median - Last Median) / # Baseline Weeks</td>
</tr>
<tr>
<td><strong>Steps:</strong> 1. Gather data</td>
</tr>
</tbody>
</table>
| Slope from above: \_
| # of weeks left in instructional period: \_
| Baseline score: \_
| 2. Calculate |
| \_
| \_
| \_
| \_
| Slope \_
| # Weeks \_
| Baseline \_
| Goal \_
| **Guide** |

Slope: Student rate of improvement
First Median: The middle value of the first three data points collected
Last Median: The middle value of the last three data points collected
Baseline weeks: If data are collected weekly: # baseline weeks = # data points – 1
# Weeks: The number of weeks remaining in the instructional period

Goal = \_
Reflection

What considerations would you take into account before using this goal-setting strategy?

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Write an annual goal statement using your selected goal. Be sure to include the condition, target behavior, and level of proficiency.

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Notes
Appendix C. Practice Activity: Practicing the Setting of Goals

Use the following information to calculate academic progress monitoring goals for Lincoln using the three strategies presented in this guide. Mark the three goals on the graph to compare how they differ and are similar. After completing this task, use the space provided to reflect on the pros and cons of the three goal-setting strategies.

a. Data points during the last 8 weeks: 14, 16, 13, 10, 17, 17, 18, 20
b. Weeks of instruction remaining in the semester: 12
c. End-of-year benchmark: 60
d. ROI from national norms: 1.5

Lincoln’s Progress Monitoring Graph

Goals for Lincoln
1. Draw a vertical line between weeks 8 and 9, from the x-axis to the top of the graph. This line is called a phase change line and shows when the instruction changed on a student’s graph.
2. Calculate the new baseline by finding the median of the last three data points. Mark the new baseline on the phase line between weeks 8 and 9.

Benchmark Method
1. Locate the end-of-year benchmark and mark it on the graph at week 20. Label it with a “B.”
2. Draw a goal line from the new baseline to the goal.
**Norms for Weekly Rate of Improvement**

Formula: \( \text{ROI} \times \# \text{ Weeks} + \text{Baseline Score} = \text{Goal} \)

Steps:
1. Gather data
   a. ROI: _________
   b. # of weeks left in instructional period: _________
   c. Baseline score: _________
2. Calculate:
   \[ \text{ROI} \times \# \text{ Weeks} + \text{Baseline} = \text{Goal} \]
3. Mark the goal on student graph with an “R.”
4. Draw a goal line from baseline to the goal.

**Intra-Individual Framework**

<table>
<thead>
<tr>
<th>Intra-Individual Framework Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formula:</strong></td>
</tr>
<tr>
<td>( \text{Slope} \times 1.5 \times # \text{ Weeks} + \text{Baseline Score} = \text{Goal} )</td>
</tr>
<tr>
<td>( \text{Slope} = (\text{Last Median} - \text{First Median}) / # \text{ Baseline Weeks} )</td>
</tr>
<tr>
<td><strong>Steps:</strong></td>
</tr>
<tr>
<td>1. Gather data</td>
</tr>
<tr>
<td>Slope from above: _________</td>
</tr>
<tr>
<td># of weeks left in instructional period: ______</td>
</tr>
<tr>
<td>Baseline score: _________</td>
</tr>
<tr>
<td>2. Calculate</td>
</tr>
<tr>
<td>[ \text{Slope} \times 1.5 \times # \text{ Weeks} + \text{Baseline} = \text{Goal} ]</td>
</tr>
<tr>
<td><strong>Goal = __________</strong></td>
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</table>
Reflection

Now that you have practiced using each goal-setting strategy, what do you see as the pros and cons of each?

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_____________________________________________________________________________________________
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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: 59 words read correctly

3. Goals for Lincoln:
   a. Benchmark method: 60
   b. Norms for ROI method: 36
   c. Intra-individual method: 28