

## Program Managers' Assessment Toolkit: Measuring Student Academic Performance



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# **Program Managers' Assessment Toolkit: Measuring Student Academic Performance**

## **Background**

In 2001, President Bush's No Child Left Behind (NCLB) education plan proclaimed that the nation's education programs would be held accountable for student outcomes across multiple domains including areas such as the education of youth who are neglected or delinquent (N or D) that have been largely overlooked in the past. At the most fundamental level, NCLB mandates that the young people residing in juvenile institutions receive the same educational opportunities as students in the general population.

While schools within juvenile institutions share many of the same characteristics and challenges of underperforming schools throughout the country—a disproportionately low income and minority population, a high proportion of English language learners (ELLs), and low parent involvement—educators of youth who are N or D face a variety of challenges unique to their environment. These include multiple-ability levels in a single classroom, a constantly changing classroom population, and an institutional philosophy that often places education second to security.<sup>1</sup>

The educational instruction in N or D programs must be tailored to best meet the specific needs of their students, including a high proportion of students with learning disabilities and students who have been out of the classroom for months or years. As a result, N or D programs must have tools and processes in place to accurately assess both student academic status upon entry and the progress students make while enrolled. Ideally, these processes are built around the administration of a pre-post assessment in reading and math upon entry and (minimally) upon exit.

This Assessment Toolkit will discuss the benefits of pre-post assessments for N or D program managers and educators of youth who are N or D and provide tools and resources to help facility administrators use pre-post assessment for student and program improvement.

## **Why is collecting pre-post assessment data important?**

Academic assessment is an integral part of any student's educational experience. Consistently measuring and updating the academic achievement levels of students in education programs for youth who are N or D is especially important. As students leave facilities with little or no advanced notice, it is vital that their educational records are updated frequently so that the documentation that they bring to their next placement accurately reflects the progress they have made. In addition, using assessment data to make decisions allows teachers to target academic instruction and better prepare students for their transition out of the facility.

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<sup>1</sup> Wolford, B., Purnell, B., & Brooks, C. C. (2000). *Educating youth in the juvenile justice system*. Richmond, KY: National Juvenile Detention Association.

### Accurately place students

Many students enter juvenile justice placement with incomplete academic histories and records. In order to accurately place new students in an appropriate educational program, teachers and administrators must have an understanding of their academic strengths and needs.

Administering a pre-test is an efficient way to measure new students' abilities and begin planning instructional strategies. As the authors of *From Incarceration to Productive Lifestyle, Making the Transition: An Instructional Guide for Incarcerated Youth Education* note:

"Facilitating learning is basically a *process* that begins with identifying what students need... They come from different educational backgrounds and learn at different paces. The teacher's ability to assess these differences will determine what, how, and when students will learn."<sup>2</sup> The time that youth spend in residential programs is for many a rare opportunity to improve academically; efficient placement in the educational program will allow teachers and administrators to maximize that opportunity.

### Monitor student progress

In many facilities, the classroom is full of learners of a variety of ages, experiences, and abilities. In some cases the students come from, and will return to, a variety of schools and districts, each with their own standards and expectations. Many students involved in the juvenile justice or child welfare systems are functioning far below grade level and/or have special education needs that require an Individualized Education Plan (IEP).<sup>3</sup> In order to meet these diverse student needs, correctional educators must be able to target instruction at the individual level.

"Differentiated instruction can be the foundation of effective instruction... In order to plan differentiated instruction, teachers must have information based on learners'... strengths and needs."<sup>4</sup> That information can be provided by pre-post assessment results.

Pre-post testing allows for real-time progress monitoring. Because multiple posttests can be administered throughout a student's enrollment, educational gains can be monitored and instruction can be adjusted appropriately. Measuring academic progress through appropriately administered pre-post tests can be a powerful tool in providing teachers feedback about how to better meet students' academic needs. In *Assessing Formative Assessment*, Matt Villano notes that "as teachers finish each lesson, instead of waiting for a high-stakes test at the end of the year, they do the assessment right then and there."<sup>5</sup> Juvenile justice teachers in particular cannot wait for the results of annual State-required tests to assess student progress as many of their students will not be in the facility long enough for those results to be applicable. Frequent academic assessment helps teachers catch small problems before they escalate and ensure that students are actually learning what they are being taught.

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<sup>2</sup> Hudson River Center for Program Development, Inc. (1995). *From incarceration to productive lifestyle, making the transition: An instructional guide for incarcerated youth education*. Glenmont, NY: Author.

<sup>3</sup> Rutherford, R.B., Bullis, M., Anderson, C.W., & Griller-Clark, H.M. (2002). *Youth with disabilities in the corrections system: Prevalence rates and identification issues*. Washington, DC: Center for Effective Collaboration and Practice, American Institutes for Research.

<sup>4</sup> Office of Vocational and Adult Education. (2005). *STAR Project Reading Toolkit—Pilot Version*. Washington, DC: Author.

<sup>5</sup> Villano, M. (2006, January). *Assessing formative assessment*. Downloaded from [www.techlearning.com](http://www.techlearning.com)

### Document and share student progress

Pre-post testing is especially valuable to students who are neglected or delinquent because it allows teachers to document their individual academic gains. Not only can teachers use the gains students make from pretest to posttest as a powerful motivator to keep students invested in their education, assessment scores also communicate that progress to those outside the classroom, including parents, administrators, and educators at a student's next placement. Far too often, the hard work done by students and teachers to prepare for public school is negated when students arrive without the proper documentation of their achievement. At the very least, students waste valuable school days as they sit through a battery of placement tests, spend time in the wrong classes, or are required to repeat classes or grades. In the worst case scenario, students become so frustrated with the process of trying to reenroll in school that they drop out altogether. Using assessments to track student progress and recording those assessment results in student records can help ensure that students get credit for their work and are placed appropriately when they transition out of their current education program.

### **What are appropriate pre-post tests for the student population?**

In some facilities, assessment activities are focused on administering an annual State assessment. However, State assessments are generally not appropriate tools for Nor D programs to use to demonstrate the progress of their students for several reasons:

- Scores cannot be used to see individual student gain (e.g., a student takes a fourth-grade test and then a fifth-grade test instead of the fourth-grade test again).
- The State assessment is usually not designed to be given more than once per year; hence, it is not an appropriate pre-post test.
- It cannot be used to track ongoing academic progress of students during their enrollment period.
- Most of the students will have entered and exited the Nor D system before the one-year mark (only about 10 percent of students are in facilities for more than a year) and may not be enrolled during the administration of the Statewide test.<sup>6</sup>

Furthermore, the characteristics of students served in Nor D programs may not be adequately addressed by State assessments (e.g., students who enter below grade level or have special education needs). Facilities need to assess their population and select a test that: 1) is designed as a pre-post test, and 2) best meets the needs of the population they serve. NDTAC's [\*A Brief Guide to Selecting and Using Pre-Post Assessments\*](#) contains valuable information on what to consider when selecting a pre-post assessment.

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<sup>6</sup> Snyder, H., & Sickmund, M. (1999). *Juvenile offenders and victims: 1999 national report* (p. 201).

Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention.

Data Source: Office of Juvenile Justice and Delinquency Prevention. Census of Juveniles in Residential Placement 1997 [machine-readable data file]. Washington, D.C.: OJJDP, 1998. Available at:

<https://www.ncjrs.gov/html/ojjdp/nationalreport99/toc.html>

## Data collection and reporting: Where does my facility stand?

A series of tables accompany this toolkit for program managers to use when examining pre-post assessment procedures and student academic progress. Completing the tables can provide an opportunity to reflect on which data related to pre-post assessment practices and results are currently available. The tables may also be used to develop a history and record of procedures for new employees, and to establish a baseline on which to track improvements and set new goals.

Two versions of these tables are available. The PDF version is appended to this document for those who prefer to complete the tables on paper. A downloadable [Excel file](#) provides an electronic version of the data tables. Each table provides fields to enter data, a place to set goals relevant to each data collection point, and space to document the steps needed to achieve those goals. The Excel tables allow for the entry of data at several points in time, can be used to track facility progress, and also feature **graphs** generated from the data entered.

### Using the data collection tables

Following is a description of the tables and issues to consider around pre-post testing. Consider expanding on and tailoring the questions in this toolkit to better address the needs of your facility.

#### *Table 1: Documenting Process and Procedures*

Before completing the data collection tables, take a moment to consider the questions in the Documenting Process and Procedures table. Use this table to identify the tests selected for monitoring student progress in reading and math, document the procedures for how/why these tests were selected, and note the procedures related to administration and tracking data. Are any of the assessments being used for pre-post assessment purposes? If so, were those assessments intended for pre-post use (as indicated by the publisher)? Additional information regarding selection and appropriate administration of pre-post assessments can be found in NDTAC's [A Brief Guide to Selecting and Using Pre-Post Assessments](#).

#### *Table 2: Pretesting Procedures*

Does the facility assess students' academic ability upon entry? Is there a system in place to ensure that such assessment takes place in a timely manner? Many students arrive at a new placement with incomplete education records, making assessment essential to placing them in an appropriate education program. While there are a number of valid reasons why students might not be given an academic assessment on their first day in a facility (students may be struggling with substance use issues or too traumatized by their new placement to concentrate), every effort should be made to ensure that the majority of students are assessed soon after entry into the facility and all students are assessed within 30 days of entry.

#### *Table 3: Posttesting Procedures*

Do students in the facility complete posttests in math and reading? Are the results of these posttests used to guide student instruction? While it is essential that posttests are administered at least once before the student leaves the facility in order to ensure that the student has updated academic achievement records, many pre-post assessments are designed for multiple posttests, allowing the results to be used to track student progress and guide instructional decisions.

*Table 4: Records Procedures*

How often are records updated in the facility? What percentage of students leave the facility with current records? Update academic records often, noting assessment scores (when available), grades, and credits earned in each subject. Updating student records on a regular basis ensures that they accurately reflect students' needs and accomplishments should they be transferred with little or no warning.

*Table 5: Student Progress*

Take advantage of the information provided by the data collection as an opportunity to reflect on the educational services offered by the facility. Based on changes in students' achievement in math and reading, what is the facility doing well across all students? Are there any areas in which the facility as a whole appears to be struggling? Are there particular students or particular teachers who might warrant more intensive intervention or assistance?

**Something to think about**

A number of factors impact student learning beyond what happens in the classroom. While this toolkit is focused primarily on assessment in math and reading, to best understand a student's situation we must also take into account all of the confounding factors that interact with his or her ability to perform academically, including mental, emotional, behavioral, and learning disorders. Does student assessment in your facility include the following components?

- Mental health
- Physical health
- Emotional/Behavioral health
- Substance abuse
- Special education status\*
- Vocational/Life skills
- Student goals

\*Facilities should be knowledgeable of the requirements of the Individuals with Disabilities Education Act (IDEA) as they apply to youth who are neglected or delinquent. Additional information on IDEA and students with disabilities can be found at [http://www.neglected-delinquent.org/nd/resources/policy\\_portal.asp#idea](http://www.neglected-delinquent.org/nd/resources/policy_portal.asp#idea)

**Beyond data collection and review**

As detailed in the tables, program managers should take the time to examine the procedures in place for effectively administering pre-post assessments, the program's ability to transfer thorough and meaningful student academic information, and the actual results of the students' assessments. As the program manager, you should use the information to reflect on where your program stands, to set realistic goals, and to identify concrete steps toward achieving them. Some goals may take longer than others and will require the involvement of and commitment from additional staff. You should plan to conduct another assessment in 6 or 12 months, understanding that some areas, such as student academic progress, might require review more frequently than others.

The bottom line is that “assessment data is only as good as the actions that arise from it.”<sup>7</sup> For educators of youth who are N or D, the actions that arise from data collection should be threefold:

1. Student assessment data should be analyzed so that instructional decisions can be made that reflect individual student needs.
2. Student achievement data should be analyzed at the facility level to guide program-level decisions regarding curricula, training, and resources.
3. Student assessment data should be collected and recorded on a regular basis to ensure that student records accurately reflect student progress and achievements.

### **Additional assistance**

If the results of the data collection exercise indicate specific technical assistance or training needs, contact those administrators responsible for N or D education programs at the State level; these individuals may include your State's Title I, Part D coordinator or the administrators of those agencies responsible for youth who are N or D in your State (e.g., department of juvenile justice or child welfare). Contact information for these individuals, as well as contact information for your State's NDTAC liaison, can be found at [www.neglected-delinquent.org](http://www.neglected-delinquent.org). If you have any questions regarding this toolkit, please contact NDTAC by email at [NDTAC@air.org](mailto:NDTAC@air.org).

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<sup>7</sup> Villano, M. (2006, January). *Assessing formative assessment*. Downloaded from [www.techlearning.com](http://www.techlearning.com)

# Assessment Toolkit Worksheet: Measuring Student Academic Performance

## Introduction

This workbook has been designed as an accompaniment to *The NDTAC Assessment Toolkit: Measuring Student Academic Performance*. Programs may use these tables to document and monitor their program's assessment procedures and their students' academic performance. There are five tables in which to record program data:

1. Documenting Process and Procedures
2. Pretesting Procedures
3. Posttesting Procedures
4. Records Transfer
5. Academic Performance

**Please note that these worksheets can assist with required data reporting preparation. However, this document is not a Federal, State, or locally required reporting form and should only be used and presented by the program as an informal self-assessment.**

## Definitions

### Long-term

Programs should indicate the amount of time they consider enrolled students "long-term" (for example, the Federal government defines this length as 90 days). This should be done in Table 1, row 10, and referenced throughout the workbook when asked to refer to "long-term" student totals.

### Review Period

This workbook allows programs to record data for one period of review at a time. This time period should be defined in Table 1, row 11, and used throughout the document. Programs should consider defining review periods based on the time it takes a program to implement changes and collect new results (for example, every six months or every school year). To facilitate the process of self-assessment, these worksheets can be printed and completed multiple times in order to compare data. Alternatively, programs may download the electronic version of these tables ([http://www.neglected-delinquent.org/nd/resources/toolkits/tool\\_prepost\\_practitioners\\_tables.xls](http://www.neglected-delinquent.org/nd/resources/toolkits/tool_prepost_practitioners_tables.xls)), which provides additional space for multiple periods of review and will automatically generate graphs from the data entered.

## Next Steps

Table 1 is a space to gather information on process and procedures within the program. Tables 2–5 allow programs to record information and outline steps needed to meet goals in each area. These goals may be used to evaluate results during the next review process and to monitor the program's progress over time.



**Table 1: Documenting Process and Procedures**

Complete the following table to document general information regarding the program's student assessment practices. The last two rows should be used to define the length of time the program considers "long-term" and the time period under review. Both definitions should be used for consistency throughout the document.

<p>1) Which assessment(s) does the program use to test progress in <b>reading</b>?</p>	<ul style="list-style-type: none"> <li>• _____</li> <li>• _____</li> <li>• _____</li> </ul>
<p>2) Of these tests, which are used as pre-post tests in the program?</p> <p>a) Does your method of pre-post testing for reading match those recommended by the publisher of these test(s)?<sup>1</sup></p>	<ul style="list-style-type: none"> <li>• _____</li> <li>• _____</li> </ul> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
<p>3) Which assessment(s) does the program use to test progress in <b>math</b>?</p>	<ul style="list-style-type: none"> <li>• _____</li> <li>• _____</li> <li>• _____</li> </ul>
<p>4) Of these tests, which are used as pre-post tests in the program?</p> <p>a) Does your method of pre-post testing for math match those recommended by the publisher of these test(s)?</p>	<ul style="list-style-type: none"> <li>• _____</li> <li>• _____</li> </ul> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
<p>5) How were these pre-post assessments selected?</p>	<p><input type="checkbox"/> State required</p> <p><input type="checkbox"/> District required</p> <p><input type="checkbox"/> Curriculum based</p> <p><input type="checkbox"/> Teacher developed</p> <p><input type="checkbox"/> Don't know</p> <p><input type="checkbox"/> Other: _____</p> <p>_____</p>
<p>6) When was the last time a review of the pre-post tests and related procedures was performed in the program, State, or district?</p>	

<sup>1</sup> For more information on pre-post test criteria, please review the NDTAC Pre-Post Guide available at [www.neglected-delinquent.org](http://www.neglected-delinquent.org).

**Table 1: Documenting process and procedures (continued)**

<p>7) How well do these reading and math pre-post tests align with what is used in public schools in the same district?</p> <p>a) In the same State?</p>	
<p>8) Are the results of the pre-post tests scored in a format that is easily transferable for use by other facilities or agencies?</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p>If no, use the space to the left to describe how this might be improved.</p>
<p>9) How does the program currently use assessment data? (Check all that apply.)</p>	<p><input type="checkbox"/> To report progress to students</p> <p><input type="checkbox"/> To report progress to parents</p> <p><input type="checkbox"/> To report progress to teachers/other school staff</p> <p><input type="checkbox"/> To inform instructional/curriculum decisions</p> <p><input type="checkbox"/> To identify school strengths and weaknesses</p> <p><input type="checkbox"/> To identify student strengths and weaknesses</p> <p><input type="checkbox"/> To report progress to home school/district</p> <p><input type="checkbox"/> To report progress to State agency/State department of education</p> <p><input type="checkbox"/> To maintain students' educational records</p> <p><input type="checkbox"/> None of the above</p> <p><input type="checkbox"/> Other: _____</p> <p>_____</p>
<p>10) Define the length of time the program considers "long-term" for student enrollment.</p> <p><i>*Use this length of time as a reference for answering questions about long-term students throughout the workbook.</i></p>	
<p>11) Indicate the time period under review. (For example: January–June 2006, OR the 2005-06 school year)</p>	

**Table 2: Pretesting Procedures**

Complete the following table to examine how promptly the program administers pretests to newly admitted students.

1. In row 1, indicate the total number of students who entered the program during the time period under review.
2. In the “Total” column, write the total number of students tested for each subject area at the given interval (within 30 days, or more than 30 days after entering the program).
3. In the “Percent” column, divide the total number of students pretested in each subject at each interval by the total number of students who entered the program (from row 1) and multiply by 100.
4. In the last column, set a goal for reducing the amount of time it takes to pretest students in reading and math (i.e., 75% of students will be pretested in reading and math within 30 days of entering the program; 100% will be pretested after 30 days). This goal may then be used to evaluate results during the next review and monitor the program’s progress over time.

1) Total number of students who <b>entered</b> the program during the time period under review:			
	<b>Total</b>	<b>Percent</b>	<b>Goal</b>
2) Students pretested in <b>reading</b> within 30 days of entering the program:			
3) Students pretested in <b>math</b> within 30 days of entering the program:			
4) Students pretested in <b>reading</b> more than 30 days after entering the program:			
5) Students pretested in <b>math</b> more than 30 days after entering the program:			

Next Steps

Use the space below to detail the steps that need to be taken to meet the program’s goals in this area.

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**Table 3: Posttesting Procedures**

Complete the following table to examine what percentage of long-term students is administered post- tests.

1. In row 1, indicate the total number of long-term students (as defined in Table 1, row 11) in the program during the time period under review.
2. In the “Total” column, write the total number of long-term students who were administered posttests in reading (row 2) and math (row 3).
3. In the “Percent” column, divide the total number of long-term students posttested in each subject by the total number of long-term students in the program (from row 1) and multiply by 100.
4. In the last column, set a goal for increasing the percentage of long-term students leaving with complete testing records. This goal may then be used to evaluate results during the next review and to monitor the program’s progress over time.

1) Total number of <b>long-term students</b> enrolled in the program during the period under review:			
	<b>Total</b>	<b>Percent</b>	<b>Goal</b>
2) Long-term students who were administered posttests in <b>reading</b> :			
3) Long-term students who were administered posttests in <b>math</b> :			

Next Steps

Use the space below to detail the steps that need to be taken to meet the program’s goals in this area.

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**Table 4: Records Transfer**

Complete the following table to examine how many long-term students leave the program with thorough and up-to-date academic performance records.

1. In row 1, indicate the total number of long-term students (as defined in Table 1, row 11) who left the program during the time period under review.
2. In the “Total” column, write the total number of long-term students who left the program with up- to-date posttesting data in reading (row 2) and math (row 3).
3. In the “Percent” column, divide the total number of long-term students who left the program with up-to-date reading records (row 2) by the total number of long-term students who left the program during the time period under review (from row 1) and multiply by 100. Repeat for math (row 3).
4. In the last column, set a goal for increasing the percentage of students who leave the program with thorough, up-to-date achievement records. This goal may then be used to evaluate results during the next review and monitor the program’s progress over time.

1) Total number of <b>long-term students</b> who left the program during the time period under review:			
	<b>Total</b>	<b>Percent</b>	<b>Goal</b>
2) Long-term students who left the program with up-to-date (within the last 90 days) <b>reading</b> achievement records:			
3) Long-term students who left the program with up-to-date (within the last 90 days) <b>math</b> achievement records:			

Next Steps

Use the space below to detail the steps that need to be taken to meet the program’s goals in this area.

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**Table 5: Academic Performance**

Complete the following table to examine student performance in reading and math from pre- to posttest.

1. Indicate the total number of long-term students (as defined in Table 1, row 11) in the program who were given complete pre-post tests in reading (row 1) and math (row 2) during the time period under review.
2. In the “Total” column, write the total number of long-term students who showed each grade level change for reading (rows 3-6) and math (rows 7-10).
3. In the “Percent” column, divide the number of long-term students showing each level of change by the total number of long-term students in the program given both pre- and post-tests for the corresponding subject (i.e., divide reading changes by the total in row 1 and math changes by the total in row 2).
4. In the last column, set a goal for improving student academic performance. This goal may then be used to evaluate results during the next review and to monitor the program’s progress over time.

1) Total number of <b>long-term</b> students who were given both a pre- and posttest in <b>reading</b> during the time period under review:			
2) Total number of <b>long-term</b> students who were given both a pre- and posttest in <b>math</b> during the time period under review:			
	<b>Total</b>	<b>Percent</b>	<b>Goal</b>
3) Long-term students who showed <i>negative</i> grade level change from pre- to most recent posttest in <b>reading</b> :			
4) Long-term students who showed <i>no</i> grade level change from pre- to most recent posttest in <b>reading</b> :			
5) Long-term students who showed <i>up to one</i> grade level improvement from pre- to most recent posttest in <b>reading</b> :			
6) Long-term students who showed <i>more than one</i> grade level improvement from pre- to most recent posttest in <b>reading</b> :			
7) Long-term students who showed <i>negative</i> grade level change from pre- to most recent posttest in <b>math</b> :			
8) Long-term students who showed <i>no</i> grade level change from pre- to most recent posttest in <b>math</b> :			
9) Long-term students who showed <i>up to one</i> grade level improvement from pre- to most recent posttest in <b>math</b> :			
10) Long-term students who showed <i>more than one</i> grade level improvement from pre- to most recent posttest in <b>math</b> :			

