





## Needs Identification Model and Organization of Evaluation Practices

Evaluation of NJTSS processes and outcomes is a formative process. The data gathered and analyzed are supposed to inform decisions that drive a continuous improvement cycle. It is helpful to plan this process around the application of the needs-identification model introduced in [Section 3](#). This model includes four stages: needs identification, needs analysis, plan implementation, and plan evaluation. This model of needs identification is cyclical in that the outcome of actions taken at each stage inform the actions taken at the next stage.

**Table 9.2: Review of the Stages and Actions of the Needs Identification Model**

Stage	Outcome
1. Needs Identification	Using data to identify specific differences between current functioning or achievement and a specific goal.  (The more specificity a team can use data to describe the need the easier it will be to identify the cause and probable solutions to the need.)
2. Needs Analysis	Generation of a hypothesis as to why the need is occurring.
3. Plan Design & Implementation	Creating a plan, based on the hypothesis above, to address the need.
4. Plan Evaluation	Collecting data over time to verify whether the need is solved, or nearing solution (tracking progress toward goals).

This model is often used to intensify academic or behavioral intervention for small groups or individual students, but the same logic applies at the systems-level as well. In this larger context, the chief differences are in the nature of the needs to be addressed (i.e., trends in achievement and growth for all students in a school system) and the kinds of information used to inform systems-change (i.e., intervention) and evaluation.

## Needs Identification and Analysis at the Systems Level

### Needs Identification at the Systems Level

As noted above, needs identification involves assessing the difference between an expected outcome (a goal) and an observed outcome. Engaging in needs identification at the systems level starts with establishing a focus on outcomes in key domains. These are typically academic domains, such as English/language arts and mathematics, but also include any other curricular areas (science, social studies, etc.) for which student achievement data are collected system-wide, as well as student social, emotional, and behavioral well-being. Identifying differences between expected and observed levels of achievement or functioning across these domains requires specification of goals as criteria, as well as measures that will be used to evaluate progress toward goals in an ongoing basis.

### Goal Setting at the Systems Level in NJTSS

To be most useful, goals must be specific, measurable, ambitious, yet realistic and time bound. Moreover, consideration can be given at the systems level to identify goals that align with the vision and mission of the district. This might be associated with community-specific trends or emergent needs among students (for example, goals specific to student mental health and wellbeing becoming more salient after a national health crisis). This helps ensure that the tiered support offered through NJTSS is responsive toward the population(s) of students served by the district.

### Criterion-Referenced and Normative Goals

Goals may be set across tiers within a domain (for example, goals for Tier 1, 2, and 3 in elementary reading), but more frequently, one common goal is identified for achievement or functioning across the domain. Teams involved in leadership and evaluation of NJTSS across districts have two broad methods for goal setting: criterion-referenced goals and normative goals.

### *Criterion-Referenced Goals*

These are based on a specific level of achievement or level of functioning, as measured by tests or other measurement instruments (for example, rating scales). Often, schools evaluate their progress toward criterion-based goals by calculating the percent of students above and below the criterion.

Criterion-referenced goals are often useful for academic achievement, since these are often areas in which specific grade-level standards have been operationalized and enacted in curriculum. These goals are defined in terms of a specific level of performance on a scale, which may be a state test or a measure used for screening/benchmarking.

### *Normative Goals*

These are comparisons of average scores for students within the district to those of other students in the same age/grade range locally, regionally, or nationally. Normative goals may be useful when specific standards for achievement do not apply, as in the case of student social, emotional, and behavioral functioning.

There is a meaningful distinction between normative comparisons made locally (such as comparing the current year's cohort to the previous three years of students) versus comparisons made nationally (comparing the current year's cohort to other students in the same grade/age range nationally). Students in different states or districts will not necessarily have equal levels of achievement or functioning; the 50th percentile nationally could be equivalent to a significantly different local percentile, such as the 25th or 75th, depending on local trends and history. For this reason, it is advisable to focus on local norms to make sure that goals based on normative comparisons are realistic and meaningful in context.

### **Expectations for Growth**

Districts that implement tiered supports often evaluate growth trends, which may be in the form of counting the number of students who transitioned up or down tiers of support within a set span of time (such as a semester) or alternatively in the form of gains in skill, achievement, or functioning over time, as measured on a single scale. Although districts less frequently define goals in terms of gains or growth, this information can be vital in ongoing evaluation of NJTSS.

### *Tier Transition*

One indicator of the effectiveness of NJTSS is the degree to which students transition between Tiers 1, 2, and 3. The numbers of students who transition to higher tiers can be seen as evidence of the use of screening and progress monitoring data, whereas the number of students transitioning to lower tiers can be evidence of (a) teams' use of progress monitoring data or responsiveness to changing instructional needs and (b) evidence of the effectiveness of support offered within that tier.

### *Measurement of Gains in Skill, Achievement, or Functioning*

Additional evidence of the effectiveness of instruction or intervention across tiers can be found in analysis of direct measures of gains in students' skills, achievement, or functioning. One of the assumptions on which schools base evaluation of tiered services is that successful interventions not only boost students' performance or functioning in the targeted area, but also boost gains in proximal outcomes. For example, a student who experiences strong gains in response to a reading fluency intervention might also exhibit significant gains in reading comprehension, as fluency is a necessary, but not sufficient, part of comprehending text. For this reason, some schools regularly examine graphs that depict student growth trends disaggregated by baseline performance level.

A graph depicting such information might present the measured skill or construct (i.e., reading comprehension) on the Y axis and specific time points on the X axis (perhaps fall, winter, and spring screening/benchmarking). The data within the graph might be average scores for students at different local quartiles: 0 to 25th percentile, 25th to 50th percentile, 50th to 75th percentile, and 75th+ percentile.

Differences in the slopes of these lines can be strong visual indicators of the impact of various instructional efforts for students across the distribution. For example, if a team observed strong upward progress of students in the lower percentile groups (below the 50th percentile), yet relatively limited gains for students in the top quartiles, team members might conclude that recent efforts to enhance impact of Tier 2 and 3 interventions had an effect, but some additional attention might be required to accelerate learning in Tier 1.





## Signals of Needs for Change

Depending on the size of the district, year-to-year differences in numbers of students meeting standards for a grade level (for example, three years of 8th grade data) can be influenced by differences between student cohorts, as well as differences between instructional practices over time; this will impact smaller cohorts more than larger cohorts because of sampling variation. One way to address this is to analyze growth data alongside proficiency data whenever possible.

To the extent that specific, measurable, ambitious, yet attainable goals have been defined in key domains aligned with district vision and mission, overall effectiveness of the tiered system can be described in terms of goal attainment. Yet tiered systems have many parts, and these might vary in effectiveness over time. Additional signs of effective systems include the following:

- records of students' transitions between tiers,
- repeated measures of key outcomes over time that indicate growth toward goals or objectives, and
- evidence of high-fidelity implementation within and across tiers of support.

## School-Level Evaluation

Continuous improvement at the school level concerns checks on the extent to which planned elements of the system (i.e., screening, data meetings, interventions) are carried out or implemented at the intended frequency and in the intended ways.

**Table 9.4: Key Indicators and Data Sources for School-Level Evaluation**

Key Indicator	Data Source
Screening/benchmark data collection	<ul style="list-style-type: none"> <li>• Observation of the fidelity of screening data collection</li> </ul>
Use of screening data	<ul style="list-style-type: none"> <li>• Data team meeting agendas</li> <li>• Records of student assignment to interventions</li> </ul>
Core instruction	<ul style="list-style-type: none"> <li>• Curriculum plans</li> <li>• Formal and informal classroom observations</li> <li>• Records of enacted curriculum</li> </ul>
Student social-emotional and behavioral functioning	<ul style="list-style-type: none"> <li>• Questionnaires</li> <li>• Disciplinary records</li> </ul>
Intervention implementation	<ul style="list-style-type: none"> <li>• Records of interventions available</li> <li>• Student intervention plans</li> <li>• Intervention dosage (recorded as number of sessions per week, instructional minutes), intervention implementation fidelity.</li> </ul>
Practitioner mindset	<ul style="list-style-type: none"> <li>• Staff survey data</li> </ul>

## Signals of Needs for Change

### Core Instruction

When achievement or levels of functioning in a grade level are below expectations, it is advisable to examine **growth trends for the whole cohort**, as well as subgroups of students within the cohort (as described above). Limited gains within subgroups can be the result of insufficient engagement (i.e., attendance, participation, etc.), limited enactment of core curriculum, limited alignment of curriculum with standards, or mismatches in teaching or classroom management strategy use with students' instructional needs.

### Tiered Interventions

Multiple times per year, school or district leadership teams might evaluate **movement of students between tiers**. If tiered services are effective, we will see movement between tiers. We might check on this midway through fall semester, at beginning of winter semester, and perhaps again at end of year.

The rationale for this is that the greatest rates (and variability in) skill growth tend to occur in the first half of an academic year. Rates of instructional decision making could be a little higher at this time. School or district leadership teams might monitor frequency of instructional decision making through periodic review of intervention assignment records. For cases in which progress monitoring data are not used to inform decisions at sufficient frequency, we might expect to see increasing numbers of students receiving intervention within a tier over time.

Perhaps less frequent, but no less important, are scenarios in which limited progress for specific interventions is the result of a **measurement mismatch**, rather than instructional match. For example, if a group of students has been participating in an intervention that targets letter-sound correspondence, and their progress is being monitored in oral reading fluency (typically scored in terms of the number of words read correctly per minute), some progress might be evident, but only to the extent that that gains in letter-sound correspondence transfer to more accurate word reading. A different measure that targets letter-sound correspondence skill directly, such as counting correct letter sounds identified in a minute, would be more likely to offer a realistic picture of growth in response to that intervention.

## Evaluation by Grade Level Teams

Table 9.5: Key Indicators and Data Sources for Grade-Level Evaluation

Key Indicator	Data Source
Use of screening data	<ul style="list-style-type: none"> <li>Data team meeting agendas</li> <li>Records of student assignment to interventions</li> </ul>
Core Instruction	<ul style="list-style-type: none"> <li>Curriculum plans</li> <li>Formal and informal classroom observations</li> <li>Records of enacted curriculum</li> </ul>
Student social-emotional and behavioral functioning	<ul style="list-style-type: none"> <li>Questionnaires</li> <li>Disciplinary records</li> </ul>
Intervention implementation	<ul style="list-style-type: none"> <li>Records of interventions available</li> <li>Student intervention plans</li> <li>Intervention dosage (recorded as number of sessions per week, instructional minutes)</li> <li>Observation of implementation fidelity</li> </ul>
Intervention outcomes	<ul style="list-style-type: none"> <li>Students' rate of progress</li> <li>Movement of students between tiers over time</li> </ul>

## Periodic Fidelity Checks for Teams

Conduct observation to verify that teams know their roles, objectives, and adhere to specified process (agendas, team member roles, etc.). Provide brief, targeted feedback; be sure to reinforce effective team practices.

## Fidelity Checks for Tier 1, Core Instruction

The term “fidelity” often refers to the degree to which a teacher or interventionist adhered to prescribed sequence of steps to an instructional procedure or intervention. More generally, it may also refer to how closely tier 1, core instructional practices match the intended design or model used by the school. Schools can assess fidelity of implementation at tier 1, core instruction through a combination of direct observation, data review, teacher self-assessment, and systemic checks.

## Fidelity Checks for Interventions

Some interventions come with checklists or specific protocols used to document fidelity. These can be used periodically to assess the extent to which interventionists implement as trained. Results of fidelity checks can highlight needs for brief coaching when drift is observed and can also spur reflection on suitability of interventions for various student instructional needs.

As discussed in [Section 2](#), many interventions come in the form of scripted or semi-scripted programs with pre-planned lessons. In these cases, it might not be feasible to create and use an implementation checklist, as planned instructional procedures might vary from lesson to lesson. An alternative is a more general assessment of interventionists’ instruction, including assessment of skills targeted (assessing dosage within lesson) and assessment of instructional strategies used (i.e., modeling, review, opportunities to respond, feedback, etc.) There is, at this time, a lack of observational protocols that have been validated for purposes of assessing qualities of intervention delivery.

## Monitor Communications With Parents

Are they informed? Do they need to provide consent for intervention? Do they understand the rationale for intervention and the support available for their children? Are they apprised of their children’s progress?

### Key Takeaways

- Implementation is an ongoing process; one that is guided by continuous evaluation.
- Although evaluation and outcomes data may be helpful to ensure accountability, their primary use is formative; they guide decision making and improvement over time.
- Data analysis and planning can be guided by a multi-stage needs identification process.
- The objectives, inputs, and procedures of evaluation vary across levels, including district-wide evaluation, evaluation within individual schools, and evaluation processes within teams.

## Additional Resources

- [The New Jersey Tiered System of Supports \(NJTSS\)](#)
- [NJTSS-Early Reading](#)
- [New Jersey Literacy Framework](#)
- [New Jersey Positive Behavior Support in Schools](#)
- [Behavioral Supports and Interventions-Special Education](#)
- [New Jersey Comprehensive School-Based Mental Health Resources Guide](#)