Assessment-Driven Instruction: A Systems Approach

by Linda Diamond

While many schools and districts use assessment data to determine student needs, only a few are utilizing the data to differentiate support for teachers, make decisions about intervention programs, and monitor program implementation. Some districts use assessment data to determine system-wide professional development needs, allocate coaching time, identify students who need frequent progress monitoring, and purchase and implement intensive intervention programs designed to support at-risk students. Schools using this approach recognize the power of assessment-driven instruction. They use a variety of tests for different purposes, with particular attention to progress monitoring tests focused on critical reading indicators.

Reading skills assessed in the early grades are discrete. These specific skills tend to be the foundation for long-term outcomes such as comprehension. Because these early skills are vital to the development of reading proficiency, assessment needs to be frequent and ongoing. In the upper grades, assessment is necessary to monitor progress and to identify causes of reading weakness. Unlike the early primary-grade measures–phonemic awareness, decoding, and fluency–upper-grade assessment often starts with comprehension and fluency, and then works backward to the earlier foundational skills in order to pinpoint gaps. Given the urgency of preparing students to read and helping struggling older readers, early screening is essential. With the right tools given at the right times, we can make accurate predictions of which students will be at risk for reading failure, and we can effectively monitor students who have been failing but who are receiving intervention (Torgesen, 2004). So what are the right tools and under what conditions do we use them?

Types of Assessment(s)

Within their schools, educators need to organize their assessment toolkits around four broad types of assessment instruments: screening tests, progress monitoring tests (CBM, for example), outcome measures such as a state's end-of-year test, and diagnostic tests. In all cases, educators need to understand the test purpose and how to use the resulting information.

Screening tests provide information about the knowledge and skill base of the student. They can determine the most appropriate starting point for instruction and for planning instructional groups and interventions. In the primary grades, screening tests should measure phonological awareness, phonics, fluency, vocabulary, and comprehension. In the upper grades, comprehension and fluency may be the first screening tests, but only as a starting point. Follow-up diagnostic assessments can be used to target areas for instruction based on any apparent weaknesses. Early screening tests should measure skills that most accurately predict future reading proficiency. For example, since the correlation between letter identification in kindergarten and reading scores in first grade has been found to be fairly high, .52 (Snow et al., 1998), a test that measures this skill early is vital. Tests of oral reading fluency, requiring as little as a few minutes to administer, are also strong predictors of later reading skill. Fuchs, Fuchs, Hosp, and Jenkins (2001) reported that a brief oral fluency measure was a better gauge of reading comprehension than short reading comprehension tests. In their study with middle school age students with reading difficulties, the correlation between oral reading fluency and comprehension was .91 (Fuchs et. al, 2001). Recent data from Florida shows a correlation between third graders' performance on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) oral fluency measure and the Florida Comprehensive Assessment Test of .70 (Buck and Torgesen, 2003). Given the reliability of these new early screening measures, educational systems must incorporate these tests into their total assessment package. These same tests, in many cases, can also serve as ongoing progress-monitoring assessments to ensure students are on track and instructional interventions are working.

Progress monitoring assessment should be ongoing. Examples of progress monitoring assessment include curriculum-embedded tests or tests such as those provided with DIBELS. AIMSweb, a similar system, developed by Edformation, measures the same foundational skills as does DIBELS, but includes other assessments for writing and math up through eighth grade. These tests are used to regularly assess student performance on a number of important predictive reading measures. In addition to external progress monitoring tools which can help determine whether students are learning to read on a predictable schedule, it is also important to track program implementation. Most good reading programs have their own unit or theme progress monitoring tests. These program tests serve to verify the extent to which teachers are effectively using their programs and students are learning what has been taught. They answer the question, "Are teachers effectively teaching the selected reading program?" These curriculum-embedded tests, along with effective external progress monitoring tests, help a school or district determine whether the program itself, the teacher training, and the implementation of instruction and intervention are effective.

Outcome assessment is often used at the end of the school year. It provides data about existing accomplishments and is useful for planning the next major segment of instruction for individual students. It most effectively provides programmatic information for large groups of students. Its greatest use is to validate the quality of a school's program and implementation.

Diagnostic assessment instruments are most often used after progress monitoring or screening tests reveal a pattern of weakness. Diagnostic tests such as the Woodcock Reading Mastery Test, Durrell Analysis of Reading Difficulty, and Stanford Diagnostic Reading Test, pinpoint specific weaknesses to target intervention.

All these different tests form the assessment toolkit all districts and schools need. Yet, even more vital, is the knowledge to use the information immediately and effectively.

Using the Data

The data obtained from screening and progress-monitoring tests will help us determine student achievement in three tiers: Tier 1-benchmark, Tier 2-strategic, and Tier 3-intensive learners. These designations match the way Reading First describes a model for prevention and intervention and is the basis for the new Response to Intervention model for identifying special education students. The terms are descriptive of students based on their performance. While it is easiest to think about the need for intervention for individual students, the success and failure of large groups of

students is dependent on the effectiveness of the teachers and the materials or programs available. Therefore, in addition to determining which students are truly in need of intensive or strategic interventions, we can also use the progress-monitoring tests that accompany most newer reading programs, data from screening and progress monitoring tests, and classroom observation to help us identify areas or topics in which teachers and schools need specialized assistance. Using data from multiple sources in this way will assist coaches and administrators to determine the extent to which teachers are successfully implementing their core reading programs, effectively monitoring student progress, and skillfully providing additional assistance. So how does such a comprehensive use of data look at all three levels in a school system: the student, the teacher, and the school unit?

At the Individual Student Level

Test data at the student level will help identify *advanced students*, those who are consistently above the benchmark targets and do very well in the grade-level materials, and are able to handle the materials designated as challenge, enrichment, or advanced. These students also benefit from enrichment and more in-depth work in order to continually grow and to avoid boredom. Test data revealing students at the *benchmark level* will reassure teachers that those students are on track to meet grade-level targets. Occasionally, they may need some reteaching, but generally this interruption in their overall positive trajectory of learning is only a minor setback. When data reveals students at the *strategic level*, those who are struggling with some concepts and content and often perform one or even up to two grade levels below level, teachers can use the information to plan and provide support during small-group time. In addition, diagnostic tests can identify specific skills for intervention. Often assistance to these students can occur within the regular classroom with added time, adjustments to pace, and increased explicitness and intensity of focus. These students could be regrouped for a portion of their time to have targeted instruction. In addition to 90 minutes or more of a core program, they will need even more time for focused instruction. It is important that this additional instruction be carefully coordinated with the core program instruction. These students need

more frequent progress monitoring and diagnostic assessments to pinpoint areas of weakness – monthly or twice a month assessment with the appropriate tests.

Students who score at the *intensive level* are those chronically low-performing students who are far below benchmark on progress-monitoring assessments. These students need extended intensive and specialized instruction in small groups. For these youngsters, smaller class size will enable the teacher to focus on their needs, even groups as small as one teacher to three or five students. For students in grades K-3 in this category, the materials in some new programs designated for reteaching, preteaching, and intervention may be sufficient. However, it is likely that other, more specialized, intensive interventions are even more appropriate. These students need very frequent progress monitoring (weekly or every two weeks) and diagnostic tests to carefully pinpoint weaknesses and set up a specific instructional plan of remediation.

Teachers and Classrooms

Classrooms where almost all of the students are meeting benchmarks on multiple measures (about 80% of the students) may need relatively limited support. Teachers who are achieving positive results with a large number of students can be models for others. Support for these teachers may take the form of ideas to challenge students and extend the curriculum. The focus can also be on helping the teachers plan for the few students who are not meeting benchmarks. Clearly the quality of instruction in the core classroom is the first issue to consider when identifying students for interventions or special education. In fact, the Response to Intervention model presumes effective core instruction.

Classrooms where about one-third of the students are not meeting targets may need *strategic* support. If the teacher has the appropriate materials and has received adequate training on the program, then poor performance by large numbers of students may signal that the teacher needs help. The curriculum-embedded tests will show which program skills are not being mastered by large numbers of students, and the external progress-monitoring tests will clarify the reading predictor skills on which students are struggling. Using that information, the coach can work with the classroom teacher or groups of teachers to review program routines, practice the

components that are indicated, and observe teaching. For example, if one third of the students are performing poorly on the program word recognition tasks, the teachers can meet with the coach for a review of the program's blending procedures, and the components that reinforce these skills. If many students fail to meet oral fluency targets, then a coach can provide review and practice in the use of the decodable books, repeated reading and partner reading, or assist the teachers to augment an insufficient program with such materials. Teachers in classrooms fitting this profile may need more support and focused assistance from their administrators and coaches in order to implement an effective program. Although the students will certainly need added assistance, an underlying issue may be the difficulty the teacher is having in effective implementation, rather than the individual student's learning challenges.

Finally, classrooms in which over half of the students are chronically failing to meet targets can be thought of as requiring *intensive* support. The teachers in classrooms fitting this profile need ongoing assistance both from the administrator and from a coach to use the selected program and any added, specialized materials effectively to meet student needs.

For homogeneously grouped, or leveled, classrooms, contrary to the general perception, even students performing at the intensive and strategic levels at the start of the year should be able to meet basic reading targets, although the pace of instruction may need to be adjusted, and the students may be in specialized programs. In fact, if these students receive extra instructional time, additional practice on the skills covered, and increased intensity of instruction, they too learn to read on schedule. It will, however, be more demanding of the teacher's expertise. In a classroom in which all students need *intensive* support, one would expect that the teacher would have a smaller group, more time with these students, and provide extra expert instruction. If a large number of students in such a classroom fail to make appropriate progress toward meeting benchmarks and do not show improvement on more frequent progress monitoring measures, then whatever was done did not work. The point is that with effective, research-based instruction, coupled with appropriately targeted materials, all students, with the exception of 2-5% (Lyon, 2005; Torgesen, 2004), should be successfully learning how to read.

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Whole Schools

Beyond the individual school level, the district can utilize these same concepts and data to identify whole schools in need of intensive or strategic support, and the degree of autonomy the school will have. For example, schools with many students performing in the intensive range may be expected to work very closely with district staff and have limited decision-making autonomy. Schools that have a large number of students performing at strategic levels may be able to negotiate a certain amount of autonomy with the district, but will benefit from direct assistance. Schools that have large numbers of students successfully meeting benchmarks may have a great degree of autonomy as long as they continue to meet targets and as long as they also address the needs of students who are not reaching high performance levels. Table 1 offers a systems approach to the use of assessment data.

Table 1:

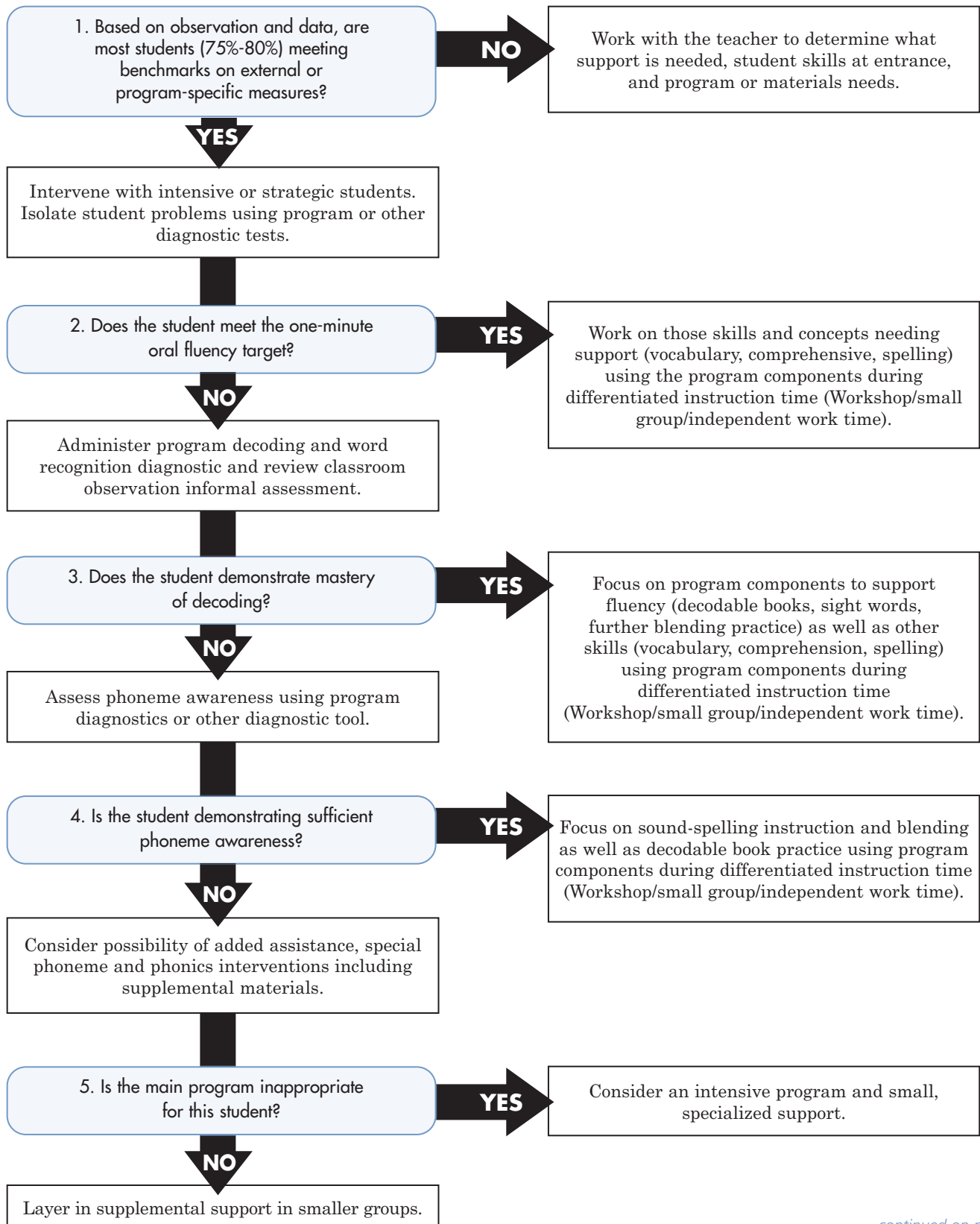| LEVEL	Individual Students (Within a Well-Implemented Classroom)	Classroom Unit	School Unit
Advanced	Students consistently exceed the targets and can handle advanced materials. **Intervention:** Need challenge, extension and enrichment. **Assessment:** 3 times a year. **Materials:** Standard core program plus enrichment.	75-80% of students are exceeding the benchmarks. Teachers may mentor others. **Intervention:** Use of enrichment and challenge materials. **Assessment:** 3 times a year and collected three times by district. **Materials:** Standard core program plus enrichment.	Almost all classrooms have most students exceeding the benchmarks; school has significant decision-making autonomy. **Intervention:** Use of enrichment and challenge materials. **Assessment:** 3 times a year and collected three times by district. **Materials:** Standard core program plus enrichment.
Benchmark	Students performing at this level are making good progress, occasionally needing reteaching. **Intervention:** Generally none needed, reteach as problems show up. **Assessment:** 3 times a year. **Materials:** Standard core program.	75–80% of students are making good progress and there is evidence the teacher is skillfully instructing all students. **Intervention:** Videotaped lessons to serve as models for others. Good classrooms for visits. **Assessment:** 3 times a year and collected three times by district. **Materials:** Standard core program.	75–80% of the classrooms are meeting the targets. Schools may be freed from certain regulations and have a high degree of autonomy. **Intervention:** The school may serve as a good demonstration site for others to visit. **Assessment:** 3 times a year and collected three times by district. **Materials:** Standard core program.
Strategic	Students performing at this level are not meeting benchmark targets on one or more indicators. **Intervention:** Direct instruction with teacher in smaller group 1: 5-7 including adjustments of pace and complexity. **Assessment:** Diagnostic tests to pinpoint problems and target intervention. Assess students every 2–4 weeks. **Materials:** core program plus specialized, supplemental materials.	About one-third of the students are not meeting benchmarks on multiple measures. **Intervention:** Assistance to the teacher on program components and supplemental materials and added support for struggling students. The coach can support these teachers with model lessons and constructive coaching. **Assessment:** Data regularly monitored by coach/ principal; district reviews data 3 times a year. **Materials:** core program plus specialized, supplemental materials.	Many classrooms have large numbers of students performing at strategic levels. **Intervention:** These schools will need to receive directed assistance from central administration. Principal may benefit from visits to model sites and mentoring. **Assessment:** Data regularly monitored by and district liaison. **Materials:** core program plus specialized, supplemental materials.
Intensive	Individual students who perform at chronically low levels in otherwise effective classrooms can be considered to need intensive assistance. **Intervention:** Students in grades K-3 may be able to use the intervention components of the existing program during teacher-directed small-group time. These students will regularly need at least 30 minutes focused on their targeted areas of weakness. Some may require a change of program and outside support. Grade 4–8 students will need a separate, intensive intervention replacing their base program. **Assessment:** Assess every 1–2 weeks and use diagnostic tests to pinpoint areas of weakness. **Materials:** Special supplementary materials or intensive intervention programs.	Over half of the students are not meeting benchmark indicators on multiple measures. **Intervention:** Supportive and frequent coaching. Administrative intervention as needed. Extra support to use supplemental and intervention materials and program components skillfully. **Assessment:** More frequent data collection and study by coach/principal/district. **Materials:** Special supplementary materials or intensive intervention programs.	Many classrooms have large numbers of students performing at intensive levels. These schools warrant intensive and directed assistance and may, as a consequence, have limited autonomy. **Intervention:** Principals may seek assistance from district staff. District leadership will provide close supervision and scrutiny of these schools. **Assessment:** More frequent data collection and study by district **Materials:** Special supplementary materials or intensive intervention programs.

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The following flow charts also are useful to determine the locus of intervention: the school, the teachers, or the students.

Flowchart for Heterogeneous Classrooms

1. Based on observation and data, are most students (75%-80%) meeting benchmarks on external or program-specific measures? **NO** → Work with the teacher to determine what support is needed, student skills at entrance, and program or materials needs.

YES ↓

Intervene with intensive or strategic students. Isolate student problems using program or other diagnostic tests.

2. Does the student meet the one-minute oral fluency target? **YES** → Work on those skills and concepts needing support (vocabulary, comprehensive, spelling) using the program components during differentiated instruction time (Workshop/small group/independent work time).

NO ↓

Administer program decoding and word recognition diagnostic and review classroom observation informal assessment.

3. Does the student demonstrate mastery of decoding? **YES** → Focus on program components to support fluency (decodable books, sight words, further blending practice) as well as other skills (vocabulary, comprehension, spelling) using program components during differentiated instruction time (Workshop/small group/independent work time).

NO ↓

Assess phoneme awareness using program diagnostics or other diagnostic tool.

4. Is the student demonstrating sufficient phoneme awareness? **YES** → Focus on sound-spelling instruction and blending as well as decodable book practice using program components during differentiated instruction time (Workshop/small group/independent work time).

NO ↓

Consider possibility of added assistance, special phoneme and phonics interventions including supplemental materials.

5. Is the main program inappropriate for this student? **YES** → Consider an intensive program and small, specialized support.

NO ↓

Layer in supplemental support in smaller groups.

Flowchart for Homogeneous Classrooms

1. Are 75% or more of the students meeting targets on the program assessments, reflecting the components taught, and are they progressing on frequent progress-monitoring tests?	→ **NO** →	Provide added assistance to the teacher and/or supplemental or specialized materials for meeting needs.

↓ **YES**

Diagnose learning needs of targeted students and consider supplemental materials to intensify instruction.

↓

2. Are supplemental materials and extra support working?	→ **YES** →	Keep working on the skills and supporting the teacher and monitor the student.

↓ **NO**

Find a plan for an intensive intervention replacement program and be sure to provide teacher training and support.

A Final Word of Caution

Sometimes in leveled classrooms teachers have whole groups of children who have historically received inadequate instruction and have seriously low skills. These teachers will need a great deal of assistance to meet the needs of these students. However, with good programs, supportive coaches and administrators, and effective professional development, virtually all students should be able to learn to read and write. The data will inform our practices and help the entire system meet the ambitious but vital national goal of making all children readers.

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