Educating Maria—and Tiffany and Jose' and Kareem and Arnold and Susanna and Phil and . . .

A new federally-originated initiative called "Response-to-Intervention" (RTI), a part of the 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA), allows schools to adopt an alternative model for the identification of students for special education. Instead of using the old IQ-achievement discrepancy model that was in the hands of special educators, the new model is controlled primarily by general educators. Primary teachers will recognize that RTI resembles closely the three-tier processes with frequent progress monitoring used in their Reading First program a few years back. They will also recognize that some of the procedures that they need to follow are similar to those in the current "pre-referral process" for identification that requires in-classroom interventions and student assessment before students are referred for a full battery of tests for special education identification. The team required to oversee RTI processes is similar to what many schools call the Student Assistance Team (SAT).

RTI, just as in Reading First, requires schools to use scientifically-based early reading core curricula, including explicit and systematic teaching of phonemic awareness, phonics, fluency, vocabulary, and comprehension. These five components were the ones determined to be critically important to children's learning how to read, according to the National Reading Panel. The Tier I or core instruction, delivered to all the children, consumes approximately one and one-half hours per day, and students are frequently assessed to measure progress in learning the essential knowledge and skills. Teachers begin immediately to introduce accommodations and in-classroom interventions to make sure that every child has every opportunity to learn. They individualize and differentiate in every way possible, and they measure and measure and measure to determine which strategies are effective with which children.

At the end of 12-18 weeks of instruction in Tier I, the teacher discusses with the SAT the progress of her students. Those not achieving at a comparable level or at a comparable rate with their peers are referred for Tier II interventions—an additional 30 minutes per day of appropriate instruction in a one-on-one tutoring or small group session. Throughout Tier II, students are again assessed frequently so that progress—or "response-to-intervention"—is monitored. After an agreed-upon number of weeks in a Tier II intervention, most children, it is predicted, will be able to exit the intervention and move back to the regular classroom. Those not responding positively to the intervention (that is, those still not performing at the same level or rate as their peers) are referred for Tier III—which begins the process of identifying students for special education services.

Tier III adds yet another 30 minutes of intense, systematic, appropriate instruction, and it should be delivered by an expert—perhaps a special education teacher or a general education teacher skilled in intervention strategies. Instruction can also be expertly and consistently delivered through quality software (e.g., *ELS* and *MLS*), facilitated by a trained teacher or aide. Progress monitoring continues until enough data are collected for decision-making related to special education eligibility. Reid Lyon and his colleagues estimate that as many as 70% of the students currently being identified as learning disabled (LD) are not. He is one of the major advocates for both Reading First and RTI as strategies to deliver appropriate instruction in tiered interventions to reduce radically the numbers of children placed in special education programs.

The following scenarios are provided to exemplify the diversity of ways that schools might implement RTI in combination with other programs in the school. It also illustrates the diversity of ways in which *Essential Learning Systems (ELS)* and *Mathematical Learning Systems (MLS)* would be helpful to a school staff in search of solutions for struggling learners.

Scenario I: Maria

Maria and her mother peeked around the door of a kindergarten classroom at Irwin Elementary School on the first day of school. Although Maria did not attend a pre-kindergarten program, change had been a part of her life. Her parents had lived in 16 different places since her birth, counting occasional extended stays with relatives between jobs or when the money would not stretch to pay rent and utilities. Their current home was a cottage on the grounds of a large estate, where her father had secured a job as gardener. Her mother worked part-time in the late afternoons and evenings (when her husband could watch the children) assisting in the kitchen when the owners gave dinner parties, which was frequent. For the first time in Maria's young life, the jobs her parents had were not merely temporary or seasonal, and the family had hope of a better life.

Maria was the oldest of six children. Her twin brothers were less than a year younger than she; and baby Isabella was only weeks old. The other two children were four and two years old. She came to school monolingual in Spanish and eligible for the free and reduced lunch program. Although she went to a library once with an aunt when she was three years old, Maria had never had a book of her own and understood nothing about the relationship between print and sound—or even print and story. But, although scared to the point of near panic of this new place to spend her day, Maria was also excited to be a school girl, and she looked around the colorful and busy classroom with excitement in her large black, dancing eyes. She wore a new green plaid dress with a "twirly skirt" made by her grandmother according to her specifications for this important day. She fully expected to learn to read immediately.

Maria's teacher was Mrs. Klein, a twelve-year veteran. She was warm and caring and a superb kindergarten teacher with a master's degree in teaching early reading and language acquisition. On this first day of school, which she knew was incredibly important to children and their parents, she had to do something very unpleasant. She had to send Maria away, along with three other children, because they had not had the required immunizations for school entry. Since Mrs. Klein did not speak Spanish, she had to find a translator to explain to Maria's mother which inoculations were required, how to get them free at the county health clinic, how to find it, and the kind of documentation that the school must have before Maria could attend classes.

And she did not see Maria again for more than two weeks. Maria's parents did not have their own transportation, and it took a lot of will and organization, plus money, to manage, with six children under six years of age, a trip across the city to the health clinic.

Maria's re-entry to Irwin Elementary School was difficult for her—more difficult than it would have been on that first day, for almost all the other children already knew the classroom routines and each other's names and had sized up each other enough to make tentative friends. Too, she

had no choice of a desk since the other children had already staked out their territory, and the teacher had made her seating chart. Maria noted with interest that some of the kids' cubbies were full of stuffed animals, L.L. Bean backpacks, huge boxes of crayons, pencil boxes that included not only the big yellow fat one, but also tiny colored pencils which she had never seen before. She had nothing to place in her cubbie except her white sweater with a hole in one sleeve.

In the next several weeks, Maria and her classmates experienced the whole battery of kindergarten screenings—for seeing, hearing, and scoliosis; for physical fitness; and for academic readiness. Maria's profile did not reveal any health problems. When she took the English-language screening test, she was immediately identified as limited-English proficient. And it was clear that Maria's total lack of preschool or experience with books predicted delays in learning how to read. The mathematics screening revealed that Maria could count only to 5, but she did that from rote memory and displayed no concept of one-to-one correspondence and other fundamental counting concepts. Maria could not name more than four colors, and she knew nothing about shapes or patterns.

Irwin Elementary School wrote into their RTI plan the previous year the implementation of a new program to their school—*Essential Learning Systems* or *ELS*. The staff debated at several meetings the best possible implementation model. One choice was to use it only for the English Language Learners (ELLs) as a supplement to their pull-out instruction; another choice was to use it in an after-school tutoring program for all at-risk children; another was to reserve it as a Tier II or III intervention for RTI; another was to use it in the special education resource room for learning disabled children; and another was to use it only with children identified for the dyslexia program. They knew all of these models were effective in some schools, for they had done their homework.

An idea advanced by the kindergarten teacher team, however, was compelling, and it kept moving up the list until it became the school's decision. Irwin Elementary staff decided to not only comply with the letter of the law regarding RTI, but the spirit of the law as well. They decided to use their new *ELS* program with <u>all</u> of the kindergarten children in the school for at least one semester. Their reasons for doing so were numerous:

- They knew that *ELS* was solidly grounded in scientifically-based reading research.
- They wanted to prevent as much failure as possible, even before assigning children to a Tier II intervention.
- They knew that *ELS*' lessons and numerous practice tasks would reinforce their own teaching of the National Reading Panel's critical components in early reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension.
- They knew that *ELS* would accelerate the learning of all students since students could be placed in their "zone of proximal development" and the instruction for each student would be individualized and differentiated.
- They knew parents would value the program's ability to provide enrichment and acceleration for more advanced students, while providing intervention and acceleration for others.
- They saw the value not only of computer-assisted instruction in teaching reading, but they also saw the value of making computers available daily to children who did not have them at home.

- They liked the program's ability not only to address students' learning weaknesses, but to reinforce their strengths.
- They valued the multi-sensory approach to the SHARE lessons and practice exercises for all students because it made learning more efficient and effective.
- They liked very much *ELS*' comprehensive assessment system, and they liked the idea of having the data from the third-party assessments, *Diagnostic Screening Test for Reading (DSTR*) and *Learning Efficiency Test (LET-II),* as a part of the kindergarten screening profile for all students. They also gave the *ELS Placement Test* to all students.
- They appreciated the parent involvement components of *ELS*—especially the parent awareness session and having the parent reports available in English and Spanish.
- They understood the importance of motivation in learning and knew that the program's encouraging, non-judgmental feedback to students would be very effective.
- They were relieved to know that *ELS* could be used at no additional expense to serve students after school, in summer school, and for parent education.
- They valued the scope of the *ELS* program, but it was big enough to use it as a part of Tier I or core instruction, but also was entirely appropriate for Tier II-III interventions.
- They praised the idea of using one program to meet the needs of diverse students and to comply with several federal/state mandates, saving them professional development time, making communication with parents easier, saving meeting time, decreasing the number of necessary pull-outs during the day; and saving the school's money.
- They were also convinced that *ELS* would improve their passing rate on the grades 3-5 state assessments that determined their school's accreditation rating and AYP status.

"If the goal of RTI is to prevent failure," they reasoned, "then why even wait for symptoms of failure before doing something? Why not use the intervention at the earliest possible time to prevent the symptoms from ever occurring?"

The kindergarten screening, then, had three new pieces of data for all students in this first year of *ELS* implementation: The *DSTR*, the *LET-II*, and the *ELS Placement Test*. Those assessments were then administered and included in each student's profile folder for analysis. Mrs. Klein participated in a team meeting to discuss the available data, and Maria, along with many other children, was labeled "at-risk" in the fourth week of her kindergarten year. Mrs. Klein sighed heavily when reviewing the folders, for she knew there was hard work ahead.

No one, at this point, had enough data to know whether Maria was simply delayed due to her not knowing English and having scant preschool education or whether she was learning disabled. What Mrs. Klein and the other staff of Irwin Elementary were committed to was that they would not wait for Maria to fail to learn to read by third grade before they began to give her the help she needed to be successful academically. This staff was highly committed to all the children in their school. They were also under a great deal of pressure to keep the school's high academic rating. They know that if they did not have near 100% passing rates on the grades 3-5 state assessments that there are many other options for the wealthy parents in their attendance zone. They welcomed RTI, therefore, as a promising practice to bring lower achievers up to a proficient level, and they lobbied hard for the resources to fund it adequately, as well as funding for the programs and practices that would keep more advanced students challenged and engaged.

Mrs. Klein's first step for Maria was to work with the *ELS* lab facilitator, Ms. Lofton, to prescribe an individualized and differentiated series of lessons that would be appropriate for the complexity of issues that Maria confronted in having to learn both how to read and how to read and speak in English at the same time. They used all the available data in the profile folder to make those decisions, and Mrs. Klein made sure that she scheduled time at least every other day to check Maria's progress with Ms. Lofton so that they could make modifications in her lesson sequences and/or change lesson parameters to make sure that Maria made as much progress as possible and as rapidly as possible.

Mrs. Klein's next step was to initiate an LPAC (language proficiency assessment committee) meeting to formalize Maria's identification as an English Language Learner (ELL). Again, they had to wait almost two weeks for Maria's mother to be able to come for the meeting and to sign the permission forms. Maria, then, began to participate immediately in a pull-out English-as-a-second-language program since the school did not have sufficient numbers of students in any one language to make bilingual education affordable. Mrs. Klein then had a short meeting with both Ms. Lofton, the *ELS* lab facilitator, and Ms. Price, the ESOL teacher, to make sure that the three of them carefully coordinated instruction for Maria and jointly monitored her progress. Ms. Price participated in a review of Maria's prescription during the next week and made helpful suggestions to both Ms. Lofton and Mrs. Klein about ways they could reinforce her ESOL instruction.

Mrs. Klein also used continuously all the ESOL strategies that she had acquired in professional development sessions to make the core curriculum as accessible as possible to her English-language Learners--teaching vocabulary constantly, encouraging participation and expression, using lots of pictures and illustrations, and being sensitive to the diverse cultures represented. Maria's Tier I, then, included

- instruction in the core curriculum with all the other children in the class;
- individualized instruction in the *ELS* lab with all the other children and Ms. Lofton;
- accommodations and in-class interventions provided by Mrs. Klein; and
- the pull-out ESOL program with Ms. Price.

And Maria began to learn and to learn at a rapid pace!

Every week's monitoring with the *ELS* progress reports and the DIBELS measurements validated that learning. After about six weeks, it was clear that Maria was easily learning at the same pace as other children in her class. The problem, however, was that she was still far behind many of them due to her economic disadvantages and to her lack of fluency in English.

The kindergarten team of teachers made a decision early in the fall that they would not attempt to assign students to Tier II until the end of the fall semester, and that no one would be assigned to Tier III during the kindergarten year unless there was an obvious learning disability. As long as there was any doubt, students would stay in general education.

In early January, then, they met with the principal, Ms. Mullen, to review progress of all the kindergarten children. Their *ELS* software provided them with graphs that tracked individual student progress as compared to that of their peers in that school and in kindergartens in other

schools in the district. Every child falling below the norm was reviewed, as was the child's *ELS* prescription, lesson parameters, and the instruction received in other programs, such as dyslexia or ESOL. The teachers included in their analysis the data they had assembled on student attendance and behavior, as well as information from parents.

At the end of the meetings, Maria was one of the children assigned to Tier II intervention. The teacher team told her mother that Maria was clearly learning as rapidly as others, but in order for her to catch up with her peers, she needed more intensive instruction. Mrs. Klein did not want her to miss any of her other instruction on a daily basis, so she worked out a schedule with Ms. Lofton to assign her an additional 30-45 minutes daily to the *ELS* lab, rotating her time through the day so that she only occasionally had to miss art, which she loved, or physical education, which all children need daily. She had to go to her ESOL class every day, and because Maria was also weak in mathematics, the schedule never took her away from mathematics instruction. Mrs. Klein and Ms. Lofton also agreed that Maria's two sessions in the lab each day should not be back-to-back. The Irwin Elementary staff quickly learned that one of their biggest challenges in implementing an exemplary and effective RTI was scheduling. Some students' schedules were even more complex than Maria's. For instance, Roberto was both ELL and required speech/language therapy, and he needed Tier II.

The teachers made the schedule work, and they collaborated as often as possible to monitor their students and to make necessary adjustments.

And Maria continued to make great progress. Some of the students assigned to Tier II exited around the time of spring break. They had caught up with their peers as documented in the progress monitoring. Although Maria's progress was dramatic, the teacher team decided to leave her in Tier II for the remainder of the year—mainly for language acquisition. Once she acquired phonemic awareness in English, her vocabulary had greatly accelerated. The teachers decided she needed to continue that vocabulary development and to continue working on fluency. They put into the notes that one major change observed in Maria was that she was checking as many pre-primer books as she could carry out of the library and frequently talked excitedly about her ability to read them to her brothers and sisters at home. She was also contributing more frequently to classroom conversation. And she smiled all the time.

At the end of the school year the kindergarten teachers had numerous sets of data to analyze to determine their success during the year and to recommend decisions about student placement to grade 1 teachers. All of the children took the *DSTR* post-test, and the whole class celebrated with ice cream and chocolate cup cakes when their average gain exceeded three years in one year of instruction. Maria's parents celebrated again with her when they learned that she had gained more than two years in one year!

The DIBELS assessments were also analyzed, and again the data indicated success for almost all the students. The ELLs had to take the state's test to measure their growth in English-language proficiency, and Maria had moved easily from the beginning level to the intermediate.

In spite of her tremendous success in kindergarten, however, Maria still lagged behind her English-speaking peers in performance, for it takes multiple years to become truly proficient in a

second language. The kindergarten teachers, therefore, recommended that Maria continue to participate in the *ELS* lab in grade 1 as her Tier II intervention, possibly for the whole year. They predicted that if she did that, along with all the benefits of Tier I instruction and her ELL class that she would be scoring at the advanced level in English by the end of grade 1 and could potentially exit the ELL program at that time or sometime in grade 2. That kind of rapid growth was important since Maria would have to take the state assessments in reading and math in English in grade 3—her fourth year in United States schools. She needed as much time in grades 2-3 as possible in the core curriculum in order to perform well on those tests.

Those end-of-year meetings brought about much discussion about other needs. The Irwin Elementary staff recognized that "fixing" the reading problem was not their whole job. They had become especially cognizant that ELL children and dyslexic children, in particular, as well as children with economic disadvantages, needed a mathematics intervention. They recommended to the principal, Ms. Mullen, that IDEA, Title I, and at-risk funds be combined, if necessary, to adopt CEI's *Mathematical Learning Systems (MLS)* to be used similarly to *ELS*, both as enrichment and for intervention, depending upon student needs.

Maria was a child desperately in need of Tiers I-II in the RTI model. She stayed in Tier II for almost two years—not because she was not responding to the intervention, but because she was responding so well and because she was so far behind her peers when she began that she needed additional time to catch up. She, like most Tier II students, never needed Tier III. She just needed adequate time to catch up.

Had Maria not had appropriate, scientifically-based reading instruction in K-1 and had she not had the opportunity to participate in a quality Tier II intervention, she would have been very likely identified for special education services in grade 3 or beyond after repeated failure.

Scenario II: Tiffany

Tiffany enrolled in Merryweather Elementary for her kindergarten year. The teachers in this school had had the same training on RTI as the teachers in Irwin, but their district's plan for implementation was different since more than half their students were monolingual in Spanish upon entering school. They offered bilingual education in their school, and virtually all students qualified for participation in their Title I supplemental program in reading and mathematics. Their decision was to keep students in Tier I during the kindergarten year since most already had access to two interventions—bilingual education and Title I. They agreed to monitor carefully the students' progress using curriculum-based assessments and the daily monitoring reports for students participating in Title I. They also worked hard to use in-class accommodations and scaffolding to make the core curriculum as accessible as possible.

Merryweather Elementary had also adopted *Essential Learning Systems (ELS)* the previous year, but they decided to use it as their Title I program, along with *Mathematical Learning Systems (MLS)*. Students would be screened using various assessments, including the *DSTR* and *DSTM* and the *LET-II* to enable teachers to target those students most in need of instructional interventions. All ELL students would be assigned to *ELS*, as would general education students in need.

Once Tiffany got her inoculations and officially enrolled at Merryweather Elementary, she was assigned to Ms. Garrett for kindergarten instruction, to the *ELS* lab with Mr. Miller for the Title I supplemental program, and to the *MLS* lab with Ms. Stone to develop/reinforce the concepts of base ten, place value, and whole numbers 1-20.

Tiffany fared well at Merryweather Elementary. The progress monitoring documented her progress in learning to read, write, speak, and listen. Her *DSTR* post-test documented gains of 1.2 years for her first year in school. Her math improved noticeably, as well, for she was able to work through all the lessons on the basic concepts. Her gains were dramatic since she was not able to count past 5 when she entered school. She gained three years in mathematics, as measured on the *DSTM*.

Tiffany's teachers recommended that she be promoted to grade 1, that she continue participation in *ELS* and *MLS* for Title I, and that she be assigned to Tier II at the beginning of grade 1. In Tier II she would receive an additional 30-45 minutes instruction per day in *ELS* to further accelerate her reading skills and to strengthen vocabulary and fluency.

At the end of grade 1, Tiffany exited Tier II. Shortly after the beginning of grade 2, her teachers noted that she was learning as quickly as other children, but she was still behind her peers in vocabulary and oral expression, so they again assigned her to Tier II for more intense instruction in *ELS*. She also continued to participate in the *MLS* lab to develop fluency in whole number operations. By the end of grade 2, Tiffany's teachers were confident that she would pass the grade 3 state assessments in both reading and mathematics. They recommended that she exit Tier II instruction for grade 3.

Tiffany did continue participating in the *MLS* lab in grade 3 as she benefited from the reinforcement of the concept lessons for new topics, and she needed the repetition and practice to develop fluency. At the end of the year, Tiffany's score report on the state assessments indicated that she had passed both reading and mathematics.

Scenario III: Jose'

Jose' enrolled in Rodriguez Elementary School in the middle of what should have been grade 3 for him. But he enrolled without any prior schooling, for his family had only that summer immigrated from a remote village in Columbia to the United States. He was shy, scared, and unwilling to speak in either Spanish or English—for weeks and weeks. He did not know how to flush a toilet, open a milk carton, or wait his turn. He did not recognize any of the letters of the alphabet or any numbers, and he refused to respond to assessments to determine his understandings of other concepts. His lack of knowledge and skills in Spanish was a major challenge for his teachers, not to mention his total unfamiliarity with English. Some of the members of the staff wanted to place him immediately in special education since they believed those teachers would be better qualified to teach him. They didn't know how to begin with a child they couldn't assess. Mr. Smith, the principal, reminded them that identification for special education was now a process, not an event, and that the school had an obligation to try general education interventions before beginning the special education process.

Jose's teacher at Rodriguez Elementary was a man with long experience in the school and in the neighborhood. Mr. Miller understood what it was like to be poor and invisible, and Jose's wide eyes and silence presented him with an immediate sense of urgency to help him. If special education were out of the question, what else might work? He would, of course, do everything that he could to make the core instruction accessible with in-class interventions. He would, of course, convene an LPAC meeting to formalize Jose's eligibility for bilingual education. At Rodriguez Elementary, as at Irwin Elementary, all kindergarten children were assigned to the *ELS* lab, and it was used in grades 1-5 as a Tier II-III intervention, as needed. Typically, a child stayed in Tier I for at least a semester before being assigned to Tier II, but Jose's case was not typical. Perhaps they could bend the rules to allow him immediate access since he had missed *ELS* as the kindergarten prevention program. Mr. Miller knew that the addition of CEI's *Letter Recognition* lessons to *ELS* would be especially helpful for this student.

On the first day of his official enrollment after the two weeks it took to get his inoculations, Mr. Miller took Jose' by the hand and escorted him to the computer lab to meet Miss Shay, as the children were invited to address her, since she was only recently out of school. Miss Shay could speak basic Spanish, so she began slowly with gentle touches, wide smiles, and quick sketches of illustrations to introduce this tiny and frightened boy to the computer. After several days of getting to know him and building trust, Miss Shay opened the *ELS* program with level 1, lesson 1, and sat with Jose' as he began his first SHARE lesson.

Mr. Miller and Miss Shay talked daily, if only for a few minutes, to share their observations and data on Jose's progress. Mr. Kehl, the bilingual teacher, joined these conversations every day at lunch, and they worried together and planned together the next steps. One day, Mr. Kehl excitedly told his colleagues that a grant from the state department of education was available to enhance the achievement of LEP children, so they decided to write the proposal—mainly for Jose', but also for many other students in their school who could greatly benefit from an after-school program, a summer school program, and a parent education program to accelerate their growth in English proficiency and in mathematics. They decided to use the school's *ELS* and *MLS* programs as the core of these programs and to use available funding to pay for transportation and staffing. When they were notified that they received the grant, they were jubilant, for they recognized that their needy students required a great deal more time than the school year afforded if they were to catch up sufficiently to perform at the proficient level.

Jose', as did many other children from Rodriguez Elementary, spent six weeks of his summer participating in the Yo Se' summer opportunity program for ELL students. They spent time each day in the *ELS* lab, in the *MLS* lab, in a recreation program designed also to acquaint students with aspects of American culture, in a theatre program, and, especially for Jose', an art program that taught the students how to illustrate, taught by Miss Shay.

By the beginning of grade 4, Jose' had grown tremendously. He was still shy and quiet, but he was obviously acquiring English at a rapid pace, had worked through units 1-2 in *MLS* and was ready for multi-digit division in level 4. He still scored at the beginning level of English proficiency at the end of grade 3 (after only one semester in school), but his teachers were sure he would score at the intermediate level by the time school started in the fall of grade 4.

Jose' continued in both *ELS* and *MLS* as Tier II interventions through grade 4 and was the child that Mr. Miller and others in the school came to when they needed something illustrated, as he continued to work with Ms. Shay on this interest. By the end of the year, he scored at the high end of intermediate on the state English proficiency test, and he was beginning to perform similarly to other students in his core mathematics instruction. Jose's teachers knew that he would never require Tier III instruction, although he might continue to need *ELS* as a supplement in grade 5—for continued vocabulary development, as well as fluency.

Scenario IV: Kareem

When Kareem arrived to enroll in Alexander Elementary in grade 2, his records showed that he had spent a year in *ELS* as a prevention program in kindergarten at Irwin Elementary. He began grade 2 at Irwin, but his family moved after six weeks to a new neighborhood, and he had to change schools. The Alexander Elementary staff was immediately able to check Kareem's records since Irwin Elementary was in the same district. They were pleased to see that Kareem had participated in Irwin's *ELS* lab in grades K-1, continuing in grade 2, and had made great progress in learning to read, although he was still not performing at grade level.

The grade 2 team, using the data and information they had, tentatively reassigned Kareem to Tier II and to the *ELS* lab for further strengthening of his reading skills. They noted from his report card and from grade 1 progress monitoring in mathematics that Kareem was seriously behind in mathematics. They, therefore, also assigned him to the *MLS* lab for a part of each of his school day to try to head off future failure in this domain. Their school's students who had had access to *MLS* had all been able to pass the grade 3 state assessment in mathematics, even though many were from very poor families and came to school without even basic mathematics concepts. The school's staff members were especially pleased with the fluency exercises in *MLS*. Being able to have computer-assisted-instruction in this area freed them up from having to prepare and check the kinds of practice/repetition exercises that were required for individual students. They had also seen how little they needed to use the copy machine because they had this tool.

Through the remainder of grade 2, the Alexander staff continuously monitored Kareem's progress in language arts and mathematics, just as they did for all their students. Except for the month of April, when Kareem's family took a trip to visit his grandmother in Detroit, Kareem made steady progress toward the goals of English and mathematics proficiency. At the end of grade 2, in spite of his school transfer, when he lost almost a month of school, and his family's trip for a month, the data showed that Kareem had gained 1.8 years in reading comprehension and more than 2 years in mathematics operations. The Alexander staff felt confident that Kareem would be able to exit the Tier II program by mid-year of grade 3 and that he would score at the proficient level in both reading and mathematics on the state assessment.

Scenario V: Arnold

Arnold enrolled in grade 6 at Klein Middle School in mid-October. His records were at least eight inches thick, for he had attended eleven different schools in his young life. The Klein staff wanted to weep as they put together his profile. He had moved across the country to this city at

age 4 with his parents and younger siblings. The family was exceedingly poor, so they never enrolled Arnold in kindergarten, and although he entered first grade on time, he missed more than three months of school. The notes indicated that since he was the oldest child, his mother frequently kept him at home to help with younger children or even to babysit them alone when his mother could pick up work. Also, the family returned to their home state to visit relatives twice during the year, taking the children out of school for several weeks at a time.
In all those eleven different schools that Arnold had attended, he apparently never had access to an effective intervention—perhaps because he was not in them long enough for appropriate assessments to be administered and for data to be analyzed. He had not participated in an at-risk program, and the information about his Title I instruction indicated that it consisted mainly of pull-out tutoring on a sporadic basis with a para-professional. He was just allowed to fail. And fail. And fail. In grade 4, his teacher referred him for special education testing, and before the end of the semester, Arnold was assigned to a resource room for English language arts and mathematics instruction.

As we shall see, Arnold was an example of those 70% of students identified as learning disabled, who really are not. They just have never had appropriate or adequate instruction in scientifically-based programs.

The middle school team of teachers reviewing Arnold's profile requested an IEP meeting to write his instructional plan for grade 6. At Klein Elementary, the special education department used both *ELS* and *MLS* in their resource rooms. They chose these programs because they, unlike almost all mainstream education software, get at the root cause of learning difficulties or disabilities—faulty sensory processing. They also yield dramatic results for students who are limited-English proficient, for they teach the English phoneme system and teach to mastery how to read/pronounce/spell/write/define more than 2000 words. They especially liked, as well, the fact that both programs made sure that students truly mastered the content and became fluent in its application. Most instructional materials, including those published for special education, do not contain enough practice exercises to develop fluency. Not only did *ELS* and *MLS* provide adequate practice, but both were varied and engaging enough to keep students motivated. Another important feature for IEP teams was that both programs provided their own progress monitoring, making documentation easier for special education teachers already burdened with paperwork demands.

When Arnold took the *DSTR* and *DSTM* pretests, his scores indicated that he performed below first grade level in both reading and mathematics. His scores were, in fact, so low that his general education teachers wondered if he might be mentally retarded, not just learning disabled. The *LET-II* indicated a few learning strengths for Arnold, and the Klein teacher team all resolved to build on those, while his weaknesses, as well as strengths, would be addressed in the resource room. Arnold had told them in the IEP meeting that the only thing he loved to study was art, so the team scheduled him into art as his one elective class.

When the Klein teachers met two months later to review student progress, they were stunned to learn that Arnold was working rapidly through both the *ELS* and *MLS* programs, with almost no need ever to repeat lessons since he was learning so effectively. As they looked at his progress reports, they began to think about their own observations of his performance, and one by one,

each of his teachers noted that Arnold sat on the front row in their classes, paid close attention to instruction, and although clearly behind and frustrated, he had impressed them as a student eager to learn. Each left the meeting committed to paying more attention to Arnold in their classes.

Arnold's language arts teacher, Mr. Langacher, took another step. The district had initiated a parent education program a couple of years previously. The program included instruction to help ELL parents gain citizenship; health information; information about available community services; suggestions of ways to support their children's academic achievement; and opportunities to participate in the schools' *ELS* and *MLS* labs during the evenings. Title III funds helped pay a Spanish-speaking paraprofessional to run the program, but all parents were eligible.

Mr. Langacher made an appointment for an evening home visit with Arnold's parents, and they agreed. He invited them to participate in the school's *ELS* lab—so that they could see what was making Arnold so successful. He didn't say it, but he also knew that neither of Arnold's parents had a high school diploma, and he hoped that this class would lead them to others that would prepare them to take the GED. As he spoke, Arnold's smile consumed his face, and his dark eyes danced as he nodded his encouragement to his parents. Arnold's dad could not attend, he said, but he encouraged his wife to do so, and she was in her seat at the school the very next evening.

Students at Klein Middle School had to take the state assessments in reading and mathematics near the end of February. The Klein faculty had made a decision three years earlier that all resource room students would have to take the grade-level state assessments (in response to the NCLB cap on the percentage of special education students who can take alternative assessments). In spite of the progress he had made, Arnold still failed the grade 6 tests and scored at the Below Basic level. His teachers were saddened, but not really surprised when they remembered his very low performance when he enrolled.

They were elated, however, when they had a surprise visit from Arnold's mother. This year was the first time, she said, that Arnold had showed any significant interest or improvement in school. When they told her how well Arnold had done on the post-tests, she was very pleased. Arnold told them later in his quiet way that one thing that had helped him was that his mom could now read too, so they read together and talked about what they had read.

Mr. Langacher then arranged for another home visit, taking a box of homemade pralines and a copy of Arnold's test reports to explain to his parents. When he left, the whole family was smiling, and Arnold's dad said that he might attend the parent's class the next year.

Arnold continued in both *ELS* and *MLS* through grade 7 as a special education student. By the end of grade 7, however, his IEP team was convinced that Arnold was not learning disabled and probably should never have been placed in special education. They were even more convinced when Arnold's state assessment scores moved up to the upper ranges of Basic performance. They were confident that he would pass it in grade 8.

A very important event then occurred. The Klein IEP team did its annual review, and after much discussion with Arnold's mother, they decided to exit Arnold from special education. Arnold's mother was reluctant for them to do so in the first of the two meetings they had because she did

not want him to miss using the *ELS* and *MLS* programs. Arnold's teacher team assured her that he could remain in *ELS* through grade 8 since they also used the lab as their Tier II intervention for struggling learners—not solely for resource room students. They felt he needed only the lessons in the operations of fractions in the *MLS* program to be able to exit that program by the middle of grade 8.

By the end of grade 8, Arnold was not yet on grade level in all areas, but he had made such dramatic improvements in all areas that the teachers were confident that he could go to high school. Arnold was a poster child for Klein Middle School. He had come to the school so low that almost no one had hope for him, and he had emerged after three years of careful use of appropriate interventions and a great deal of support and caring as one of their most important success stories!

Scenario VI: Susanna

Susanna enrolled during November in the fourth grade of Meyer Elementary after having spent grades K-3 in an elementary school in another state. Her records indicated that she was low performing, and the notes suggested that Susanna probably had some kind of reading disability since they had been unable to teach her to read and spell in Spanish or English. Even with those notes, however, the counselor, Ms. Smith, confirmed in a telephone call that Susanna had never been referred for dyslexia or special education services. She had just failed repeatedly to learn to read, and she had also been very unsuccessful in some areas of mathematics—particularly in the retrieval of math facts.

Meyer Elementary had one of the best dyslexic programs anywhere, led by Ms. German, who also served as the school's Reading Coach. When Ms. Smith first read Susanna's files, she immediately scheduled a meeting with Ms. German to request that Susanna be screened for dyslexia. Because Ms. German understood that dyslexic students invariably also had mathematics problems, she arranged for a math screening as well, which included administering the *DSTR*, *DSTM*, and *LET-II* to Susanna.

Using all the data available to her, Ms. German and her teacher committee very quickly identified Susanna as dyslexic. Ms. German and Susanna's bilingual teacher, Ms. Gray, met to write her instructional plan for both reading and mathematics. Meyer Elementary made use of both the *ELS* and *MLS* labs for dyslexic students, along with targeted Title I students, so Susanna was assigned to both those programs for intervention.

Because testing revealed that Susanna did not have an understanding of phonemes and did not have phonics skills, she started with *ELS*'s basic lessons to begin to learn to read. In mathematics, she did understand the base-10 system and place value, and she had no problems counting or with whole numbers. Her greatest needs appeared to be almost a total lack of fact fluency, so that work became her focus for *MLS* instruction.

Susanna made dramatic progress very quickly since her disability was apparently rather mild. Ms. Gray's classroom was near the *ELS* lab, which was next door to the school library. At first, Susanna would never check out more than the one required book on library day. Soon, however,

she was checking out two, then four, then as many as ten books (the limit) at a time, and she consumed them voraciously. Another observation was how quickly Susanna's handwriting improved—from primitive printing to readable cursive in three months. By the end of the semester, she had improved her math grade from F to a C—more evidence of her success.

By the end of fourth grade, Susanna had moved up three grade levels in reading, and she had mastered the whole number math facts, becoming more and more fluent and more and more accurate in their applications. But Susanna failed both reading and mathematics in the grade-level state assessments. Her end-of-year review concluded that the previous assignments had worked well, that Susanna was making more than adequate progress, and that she should just "keep on keeping on" in the *ELS* and *MLS* labs in grade 5. Because the school looped, Susanna would stay with all the same teachers in grade 5.

By the end of grade 5, there was no longer a need for more *MLS* since by this time Susanna had caught up with her peers and was reasonably fluent with her math facts. Ms. Gray and other members of the school team did recommend that Susanna be enrolled in the district's summer school program for enrichment and continued enhancement of her reading and language arts skills. A part of that program included about one hour each day in the *ELS* lab.

Susanna not only passed all her subjects in grade 6, but by the end of the school year, she was on the "B" honor roll, with a scattering of A's. By the end of grade 6 she was performing at least at the average level and in some cases above average since her disability had nothing to do with her IQ and everything to do with faulty sensory processing—which had been successfully remediated in her *ELS* and *MLS* labs, as well as through the strategies used by her teachers. Susanna's mother was so delighted with her daughter's academic successes that she wrote letters of appreciation to the principal, the teachers, the superintendent, and the school board, followed by a letter to the editor of the city's newspaper to praise the school's effectiveness.

Scenario VII: Phil

Late in the afternoon of a day in late May the freshman counselor, Ms. Sterling, at Meyer High School groaned as she opened Phil's folder and began the review of his prior achievement and his schedule request for the next school year. "How," she wondered, "does a kid get to high school with such a weak background?" She dreaded the comments from the faculty who would be attempting to teach English I, Algebra I, Physical Science, and World Geography to Phil. His other two required courses would be physical education and, obviously, Reading Improvement, which used the school's *ELS* lab. After further review of Phil's math scores from previous years, she scratched Algebra I and enrolled him in Pre-Algebra, a two-period remedial program that included one period in an *MLS* lab. That left one period for an elective, which had to be art, since it was the only thing that Phil had indicated that he wanted to take.

Phil entered high school in August with a huge chip on his shoulder. He sulked throughout freshman orientation, refused to stand when they were singing the school song, and refused to face the principal, Ms. Klymova, as she gave her welcoming speech. He shuffled to the back left-hand seat in every classroom, for he had intuitively learned that teachers rarely look in that corner. Phil had no friends in this school, for his family had moved yet again, and now he knew

no one on this side of the city. Several students tried to say hello, and a group invited him to sit at their table at lunch, but he ignored them as he walked past to a vacant table at the back of the room—which became a habit of his for the next several weeks.

Because Phil refused to turn in homework and did little more than put his name on the top of in-class assignments, his core teachers had a hard time discovering if he just lacked motivation or if he could not do the work. By the end of a month, they convened a meeting of all of Phil's teachers to work on an individualized plan for him and to review his previous achievement with Ms. Sterling, the counselor. That session, along with the reports from the *ELS* and *MLS* labs, convinced everyone that Phil was truly very weak—thus the explanation for his negative behavior. Before they referred him to special education, however, they decided to do the best they could with him in the regular classroom and to monitor closely his progress in the *ELS* and *MLS* labs. The only positive report any one had to offer was from the art teacher. Ms. Goins said that Phil had volunteered to matt and frame the student art for the exhibit at the Chamber of Commerce the following week.

When the teachers met again in December to assess Phil's progress, there was still very little good news to report from the regular classrooms. Phil was failing all his core subjects. His work in the art program was excellent, and he was making an A in performance, but an F on written work, and he never even attempted to read any of the art history or criticism that was a part of the course. The physical education teacher reported similarly. He said Phil was a much-better-than-average athlete and that he would be referring him to the basketball coach to be on the team, but he wasn't eligible due to his grades.

The *ELS* and *MLS* teachers, however, were much more positive. They had a hard time at first getting Phil even to log on. He would mutter that it was useless to try, and they had to keep close watch, or he would be playing an Internet game instead of completing the lesson. Slowly, but surely, however, Phil began to log on immediately after roll call, and he stayed engaged for the complete lab sessions. By mid-November he was completing a lesson series with mastery the first time. One day the *ELS* facilitator, Mr. Thorsen, saw him mouthing, "thank you" when the computer said "good job!"

During the spring semester, Phil actually started doing homework in his World Geography, English I, and Pre-Algebra classes—not all the time, but sometimes, and he managed to make passing grades in both World Geography and English I, but just barely; and he made a C+ in Pre-Algebra, the highest grade he had ever achieved in his life. His progress in his *ELS* and *MLS* classes continued to be exemplary, and by the end of the year, he was the star student in both classes. When Phil took the *DSTR* post-test, it indicated that he had gained 5.7 years that year! His *MLS* scores were, likewise, impressive. Phil worked all the way through the program, completing the operations involving fractions before the end of the year. His Pre-Algebra teacher was so pleased with his progress that he recommended that Phil take Algebra I the next year. "Once they 'get' fractions and are fluent in fact recall" he said, "they begin to understand much of algebra. I think he can do it!"

Phil's teachers encouraged him to go to summer school to make up lost credit in Physical Science, which he did successfully, and he began his second year of high school as a sophomore—something no one thought possible only a year ago.

Postscript

For more information, educators are encouraged to go to Creative Education Institute's (CEI) web page: www.ceilearning.com.

- Available there is access to CEI's white papers that document *ELS*'s and *MLS's* grounding in scientifically-based research.
- A click on "support" and then to "correlations" takes you to a long list of correlations and alignments to various federal and state documents of importance in all schools.
- A click on "results" will take you to CEI's data on the various subgroups of learners that have participated in our labs in thousands of schools over almost 20 years. Each flyer documents the achievement gains from pre- to post-test.
- If you click on "news," you will access CEI's archive of *SHARE*, its newsmagazine. Articles can be searched by keyword, so you can find articles about the level of school, the program, and/or the kind of learning problem and the successes of students, teachers, and schools using our programs.
- There are also occasional articles that synthesize or report on research relevant to struggling learners.

An e-mail to webmaster@ceilearning.com requesting answers to specific questions or printed materials will be responded to immediately. Interested people can also call CEI directly at 800-234-7319 for additional information.