Introduction of Response to Intervention in Mathematics

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RESPONSE TO INTERVENTION CLASSROOM SCENARIO

Ms. Johnson has just finished her first month of teaching sixth-grade mathematics. She has utilized the instructional strategies that she was taught as an undergraduate mathematics education major: 1) Allow for independent inquiry and practice, 2) incorporate cooperative learning groups, 3) provide feedback in a timely manner, 4) scaffold instruction when necessary, and 5) provide multiple opportunities for student response and reflection. She recently began providing differentiated instruction by utilizing various methods to present instruction. It has been a very tiring, but also rewarding, first 4 weeks.

Two days ago during class, Ms. Johnson implemented the district’s universal screening measures in the areas of computation, operations, concepts, and applications. Overall, she was pleased with the results; 17 of her 20 students were on track to meet end-of-year math benchmarks. But it is not the 17 students who drew her attention; it was the 3 students who were struggling with the material she was presenting.

As she contemplated the fact that three of her students were struggling in math, she remembered receiving a memo from her principal regarding something called response to intervention, or RTI for short. As she read the memo, Ms. Johnson remembered hearing very briefly about RTI in one of her undergraduate courses, but she could not quite remember what it was, whom it pertained to, or who was responsible for implementing it. She thought it had something to do with special education.

Later that night, she accessed the National Center on Response to Intervention’s web site (http://www.rti4success.org). Within a few minutes, most of her questions were answered. According to the web site, RTI helps schools “identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions and adjust...
the intensity and nature of those interventions depending on a student’s responsiveness, and identify students with learning disabilities or other disabilities.” All of these components sounded logical but very intimidating at the same time. After spending some more time browsing the website, she was left with one lingering question: How was she, the classroom teacher, supposed to “adjust the intensity and nature of interventions depending on a student’s responsiveness, and identify students with learning disabilities or other disabilities”? She thought to herself, *Isn’t that something they do in special education?* For the first time this school year, she felt inadequate about her knowledge and skills.

The next morning, Ms. Johnson reread the memo regarding RTI. In it, her principal asked for teachers to submit the names of students who were not making adequate academic progress. The memo included a chart of scores arranged into three categories:

1. Low risk
2. Some risk
3. At risk

She was disappointed to have to submit the names of the three students who were in the categories of “some risk” or “at risk” according to the chart, but she was confident that she had done all she could do in the classroom. *Maybe they do have a learning disability—this would at least explain why they are not making progress like the rest of my students,* she thought. Ms. Johnson submitted the names of the three students, and then made the conscious decision to continue instructing the way she had been for the past 4 weeks; she was certain she was doing all that she could.

During sixth period, Ms. Johnson received a hand-written memo from her principal. This memo was again regarding RTI; her presence was being requested at a meeting that afternoon. As she entered the conference room, she was relieved to notice that her friend and colleague Mrs. Potter, a special education teacher, would also be in attendance along with the school psychologist. As Ms. Johnson sat at the small table and the meeting progressed, she became more and more at ease with her initial concerns regarding the RTI process, and she realized that this would be a team process.

The three students whom she had identified as not making adequate academic progress, as indicated on the district universal screening measures for math—Matthew, “some risk,” and Jeremy and Tasha, both “at risk”—would continue receiving instruction in Ms. Johnson’s class as they had for the past 4 weeks, along with receiving additional focused and more intensive instruction during class in small group settings (something Mrs. Potter would be helping Ms. Johnson plan and implement). Ms. Johnson, with the assistance of Mrs. Potter, would also monitor the progress of each of the three students once per week. After 5 weeks, Ms.
Johnson, Mrs. Potter, and the school psychologist would again meet to discuss the progress of the three students.

It has now been 5 weeks since their previous meeting, and the school psychologist, Ms. Johnson, and Mrs. Potter are beginning to review the strategies that were implemented in Ms. Johnson's class, along with the progress that each of the three students has made. They will use variety of performance data such as chapter tests and quizzes as well as the progress monitoring data on a valid and reliable measure collected weekly.

One of the students, Tasha, has excelled on her curriculum-embedded assessments as well as her progress-monitoring assessments. Last week, Tasha had the third-highest score on Friday’s quiz. In addition, all five progress-monitoring data points indicated a trajectory that would meet or exceed the district benchmarks for math by the end of the year.

The other two students, Matthew and Jeremy, have not responded like Tasha to the additional instruction that was provided by Ms. Johnson in class during Tier 1 of the RTI process. Both students’ progress-monitoring data showed little to no increase, and all five data points were below the students’ goal line. The school psychologist explained that the students had not responded (increased learning) with the instruction they had received over the past 5 weeks and a more intensive intervention was warranted. A decision is made by the RTI team that both Matthew and Jeremy will receive an additional intervention in Tier 2. The more intensive intervention in Tier 2 will involve systematic and explicit instruction delivered in a small-group setting (fewer than five students). During Tier 2, Matthew and Jeremy will receive 30 minutes of additional needs-based small-group instruction 3 days a week (based on their individual requirements) in an intervention block delivered by a math interventionist. This 30 minutes is in addition to the general education math instruction Ms. Johnson will continue to deliver (Tier 1).

Mrs. Potter, the special education teacher, and the math interventionist will spend more time instructing and assessing the progress of both students. Matthew and Jeremy will continue to receive this focused instruction for the next 10 weeks. Following the conclusion of this 10-week Tier 2 instructional period, another meeting will take place to reevaluate the academic progress of both students.

Both Matthew and Jeremy have now spent a total of 15 weeks (i.e., 5 weeks in Tier 1 and 10 weeks in Tier 2) in the RTI process. During this meeting, and for each student, the RTI team has a decision to make on the basis of their student data: 1) to return the student to a Tier 1–only schedule (if he has met the mathematical goals established by the district), 2) to have the student continue Tier 1 with Tier 2 instruction (if he has made progress and is on track for his goal), or 3) to begin Tier 3 individual instruction (if he is not responding to Tier 1 plus Tier 2 instruction).
Over the past 10 weeks in Tier 2, Matthew has made significant progress. His progress-monitoring data have significantly increased; Matthew is now on track (i.e., low risk) to meet or exceed the district math benchmarks. Ms. Johnson and Mrs. Potter feel that Matthew can successfully learn in Tier 1 and no longer requires the additional Tier 2 supports. Even though Matthew's data have significantly improved, the RTI team decides to continue to monitor his progress for the next 6 weeks but will do so less frequently. Instead of monitoring weekly, Ms. Johnson will monitor his progress once a month to make sure he is still on track.

Jeremy, however, has not responded to the individualized instruction that he has received in Tier 2. The flat trend on his progress-monitoring data is alarming. Visual inspection of his progress-monitoring graph clearly shows that Jeremy has not made any progress. The school psychologist explains that Jeremy's trendline, which is flat and not on track to meet district benchmarks, shows that he is still in the at-risk category. Because of the lack of response to the instruction and intervention Jeremy has received in Tier 1 and Tier 2 of the RTI process, the RTI team decides to move him from Tier 2 to the most intense instructional component of the RTI process, Tier 3. The nature of instruction in Tier 3 is very intensive both in terms of instruction and time as well as being focused on specific student needs. Tier 3 is reserved for students with marked difficulties in mathematics who have not responded sufficiently to Tiers 1 and 2.

Recognizing the differences in Tier 3 options that were discussed by the team, they decide that during Tier 3, Jeremy will not only continue to receive math instruction from Ms. Johnson in the general education classroom but will also receive 60 minutes of an intensive and explicit mathematics intervention (once per day for 5 days a week) delivered by Mrs. Potter, the special education teacher. Jeremy, along with a few other students who have not responded to instruction in Tier 2 in other math classes, will receive an evidence-based instructional intervention program during the next 12 weeks. After this 12-week period, another meeting will take place between the school psychologist, Ms. Johnson, and Mrs. Potter to discuss Jeremy's progress.

It is now mid-April, and Jeremy has spent a total of 27 weeks in the RTI process. According to the weekly progress monitoring assessments given by both Ms. Johnson and Mrs. Potter, Jeremy has failed to respond to the intense intervention program provided to him during Tier 3 of the RTI process. It is determined that he has not made adequate academic progress. The RTI team was hoping to be able to make the decision to either 1) move him back to Tier 2 (if he had made sufficient progress, and was on-track to meet the district benchmarks) or 2) continue with Tier 3 instruction (if he had made gradual progress). However, because of his unresponsiveness to the instruction that he received not only in Tier 3 but also in Tiers 1 and 2, the RTI team decides to move forward with a more comprehensive evaluation for special education services.
Ms. Johnson is pleased with her participation in the RTI process; she has learned a great deal, especially regarding instructional strategies she will now use in her math classes for all students. She no longer feels inadequate about her knowledge and skills when it comes to instructing students who struggle and may have learning disabilities. Two of her three students (Tasha and Matthew) who were initially lacking progress in math are now succeeding in her classroom. The third student, Jeremy, is in the process of being evaluated for a learning disability. Because of her involvement in the RTI process, Ms. Johnson has become an advocate for the early screening and intense instruction of students who struggle to make adequate academic progress in the general education classroom.