

Unlocking Success: B.E.S.T. Practices for Mathematics Interventions

Florida Organization for Instructional Leaders

December 2024



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Session Objectives

Participants will:

- Learn about updates to section 1008.25, Florida Statutes (F.S.).
- Discuss best practices for providing mathematics interventions for students who have been identified as having a substantial deficiency in mathematics for Grades K-4.
- Learn about resources available from the Department to support teachers, parents and students within mathematics.



Mathematics Deficiency and Parental Notification

Section (s.) 1008.25(6)(a), Florida Statutes (F.S.)





Mathematics Deficiency and Parental Notification – Voluntary Prekindergarten (VPK)

- Any student in a state-funded VPK Education Program who exhibits a substantial deficiency in early mathematics skills must:
 - Be provided systematic and explicit mathematics instruction to address his or her specific deficiencies.
 - Interventions must be provided with daily small group during the school day or supplemental interventions provided before or after school or both.



Determining Substantial Deficiency in Mathematics

- <u>Rule 6A-6.0533</u>, Florida Administrative Code (F.A.C.)
 - Provides guidelines to determine whether a student in VPK educational program has a substantial deficiency in early mathematics skills or whether a student in grades kindergarten through grade 4 has a substantial deficiency in mathematics.
 - Students identified based upon the rule guidelines will receive interventions to support achieving grade-level proficiency as described in s. 1008.25, F.S.



Determining a Substantial Deficiency in Early Mathematics Skills (VPK)

- A VPK student is identified as having a substantial deficiency in early mathematics skills if they meet the following criteria:
 - If the student scores below the tenth (10th) percentile at the middle progress monitoring (PM2) or the end of the year (PM3) test administrations of the coordinated screening and progress monitoring system pursuant to s. 1008.25(9), F.S., or is unable to complete the practice items at the middle (PM2) or the end of the year (PM3) test administrations of the coordinated screening and progress monitoring system pursuant to s. 1008.25(9), F.S.; and
 - Through observations and informal assessment has demonstrated achievement of twenty-five (25) percent or less of the mathematical thinking standards adopted for use in VPK programs per s. 1002.67, F.S.



Determining Substantial Deficiency in Mathematics, Kindergarten through Grade 4

- A student in kindergarten through grade 4 is identified as having a substantial deficiency in mathematics based upon a minimum of five (5) data points as described below:
 - If the student scores below the tenth (10th) percentile on various assessments including screening, diagnostic, formative, summative, progress monitoring or the coordinated screening and progress monitoring system pursuant to s. 1008.25(6), F.S.; and if the student has demonstrated minimum skill levels for mathematics competencies in one of more of the areas of emphasis for that grade level.



Mathematics Deficiency and Parental Notification Kindergarten through Grade 4

- Any student in kindergarten through Grade 4 who exhibits a substantial deficiency in mathematics, or the characteristics of dyscalculia must:
 - Be provided systematic and explicit mathematics instruction to address his or her specific deficiencies.
 - Be monitored, and instruction must be adjusted based on the student's need.
 - Be monitored for their math proficiency, and intensive interventions must continue until the student demonstrates grade-level proficiency in a manner determined by the district.



Section 1008.25(4)(c), F.S., Assessment and support

- Outlines that an individualized progress monitoring plan must include at a minimum:
 - The student's specific, identified mathematics skill deficiency;
 - Goals and benchmarks for student growth in mathematics;
 - A description of the specific measures that will be used to evaluate and monitor the student's mathematics progress;
 - Strategies, resources and materials that will be provided to the student's parent to support the student to make mathematics progress; and
 - Any additional services the student's teacher deems available and appropriate to accelerate the student's mathematics skill development.



Progress Monitoring Plan, continued

- Timing of progress reports, which should be provided at least monthly.
- Process for parents to request more interventions and the process to request more frequent notifications.
- Explanation of how the district will determine grade level proficiency for the purpose of discontinuing interventions.
- Must be developed as soon as the identification occurs as described within Rule 6A-6.0533, F.A.C., and no later than forty-five (45) school days after the results of the coordinated screening and progress monitoring system become available.



Mathematics Deficiency and Parental Notification Kindergarten through Grade 4

- The parent of a student who exhibits a substantial deficiency in mathematics must be notified in writing of the following:
 - That the child has been identified as having a substantial deficiency in mathematics, including a description and explanation of the nature of their difficulty in learning;
 - A description of the current services that are provided to the child;
 - A description of the proposed intensive interventions and supports that will be provided to the child to remediate the deficiencies; and
 - Strategies through a home-based plan the parent can use in helping the child succeed in mathematics.



Mathematics Deficiency and Parental Notification

 The Florida Department of Education (FDOE) shall provide a list of state examined and approved mathematics intervention programs, curricula and high-quality supplemental materials that may be used to improve a student's mathematics deficiencies.

 Additional information on timeline and process may be found at <u>https://www.fldoe.org/academics/standards/instru</u> <u>ctional-materials/</u> or email <u>IMStaff@fldoe.org</u>.



When Should Interventions, as Described in s. 1008.25(6), F.S., be Provided?

- Immediately following the identification of the mathematics deficiency, be provided systematic and explicit mathematics instruction to address his or her specific deficiencies.
- A school may not wait for a student to receive a failing grade at the end of a grading period or wait until a plan is developed to identify the student as having a substantial mathematics deficiency and initiate intensive mathematics interventions.



What if a Student Identified as Having a Substantial Deficiency in Mathematics is Already Receiving Mathematics Intervention?

- Progress monitoring data (i.e., student response to intervention data) should be carefully reviewed to ensure that the student is responding positively to the instruction/intervention that is being provided.
 - If data indicate that the student is responding positively (i.e., student response to intervention data indicate that the gap between the student's current level and expected level of performance is closing), then the intervention(s) should be continued in accordance with s. 1008.23(6), F.S.
 - If data indicate a questionable or poor response to intervention, intervention fidelity should be examined to ensure that instruction is being provided as intended.



Can the Interventions Required by s. 1008.25(6), F.S., Occur Within Tier 1 or are Those Supports Limited to Tiers 2 and 3?

- Tier 1 (core) includes instruction that is delivered to all students. When data indicate that majority of students need more supports, Tier 1 interventions should be provided.
- Tier 2 (supplemental) and Tier 3 (intensive) interventions should be provided in addition to Tier 1 (core) mathematics instruction. When data indicate that a student needs the more intensive supports of Tier 2 and/or Tier 3, those interventions should be provided in addition to, not in place of, Tier 1.



Providing Mathematics Interventions









What is Tiered Instruction?

- Tiered instruction and intervention is a critical component of an effective multi-tiered system of support (MTSS).
- Tiered Instruction is a three-tiered model of intervention and instruction that organizes instructional resources on a continuum of increasing intensity. Instruction can be intensified based on student need by increasing time, narrowing the focus to specific barrier skills and/or reducing the size of the group.



Instructional Approaches | Systematic

- Systematic instruction is a highly structured, organized sequence of teaching that introduces and reinforces new concepts, strategies and skills and aims to ensure a cumulative progression of learning from simple to complex.
- This approach decreases the possibility of a student developing a math deficiency over time and builds a foundation for future learning.



Examples | Systematic

- Focuses attention on the information to be learned.
- Design organized and focused lessons. Begins with a clear intention of the day's lesson, review of prior learned skills and knowledge and proceeds with small steps introducing new materials.
- Using consistent, clear and concise language.
- Provides a range of examples.
- Gives opportunities for practice and closely monitoring student performance.



Instructional Approaches | Scaffolded

- Scaffolded instruction is the intentional and strategic support provided by a teacher for students to carry out a task, solve a problem or achieve a goal with support.
 - It is planned, temporary and adjustable based on student understanding and need. The support decreases as mastery of concepts, strategies and skills increases.
- Scaffolded instruction contributes to student learning by building upon student knowledge and experiences that bridge learning gaps. The goal is to enable students to accomplish a learning task independently.



Examples | Scaffolded

- Accesses student's prior knowledge.
- Pre-teaching vocabulary.
- Incorporates time for talking and exchanging ideas with classmates.
- Modeling. This can consist of think alouds, showing examples of finished products or even modeling an activity to assist students in seeing what is expected.
- Uses specific, guiding and open-ended questions with appropriate think time.



Instructional Approaches | Differentiated

- Differentiated instruction adapts instruction in response to the distinctly assessed skill, as well as the needs of students to increase their access and opportunity to progress to and meet grade or course level learning goals.
- This approach contributes to student learning by adapting instructional strategies to meet student needs in accessing and mastering grade or course level standards and benchmarks.



Examples | Differentiated

- Can involve adjusting content, processes, or product.
- Incorporates learning stations with or without structured rotations.
- Intentional targeting of different senses within lessons.
- Grouping students with similar learning styles.
- Assigns open ended projects allows students to choose the best way to demonstrate their learning.



Instructional Approaches | Corrective Feedback

- Corrective feedback identifies and corrects student errors by explaining what each error is and suggesting how it can be corrected, ensuring students understand why an answer is either correct or incorrect.
 - Feedback needs to be timely, specific, individualized and ongoing.
- This approach contributes to student learning by providing opportunities to reflect and correct misconceptions or errors and reinforces expectations during instruction.



Examples | Constructive Feedback

- Can be given verbally or in writing.
- Should be given in a timely manner.
- Feedback can be direct and specific, identifying the error and providing the correction.
- May be indirect, identifying that there is an error and giving students another opportunity for selfcorrection.
- Important that the classroom is conducive to feedback and not viewed as critical or negative.



Instructional Approaches | Explicit

- Explicit instruction is highly structured and intentional teaching with clear objectives. Through purposeful presentation to students of the concepts, strategies and skills necessary to master learning objectives, the instruction models thinking and problem-solving skills.
 - This approach can be implemented as needed in whole groups, small groups or individually.
- Explicit instruction contributes to student learning by minimizing proximal gaps and student misconceptions.



Examples | Explicit

- Focuses attention on the information to be learned.
- Designs organized and focused lessons. Begins with a clear intention of the day's lesson, review of prior learned skills and knowledge, and proceeds with small steps introducing new materials.
- Uses consistent, clear and concise language
- Provides a range of examples.
- Gives opportunities for practice and closely monitoring student performance.



Engagement Activity





Turn and Talk

- Think about how your district or school currently provides and communicates mathematics interventions.
 - Based on the information today, what is one thing you would change?
- How can we as educators ensure that high-quality mathematics instruction and interventions are implemented with fidelity?
 - What is one barrier to implementing high-quality mathematics instruction and interventions with fidelity?



Resources

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B.E.S.T. Mathematics Resources





Early Mathematics Resources (VPK)

Florida Early Learning and Developmental Standards Birth to Kindergarten







Activity Plans for the Preschool Classroom



How Can We Support You?





Questions? Contact Us!

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We Want Your Feedback!

 Access the Bureau of Standards and Instructional Support (BSIS) professional learning feedback survey using the QR code below.





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