

---

## Applying Mastery Learning Techniques

---

*Center on Instruction*

Mastery learning uses differentiated and individualized instruction, progress monitoring, formative assessment, feedback, corrective procedures, and instructional alignment to minimize achievement gaps (Bloom, 1971; Zimmerman & Dibenedetto, 2008). The strategy is based on Benjamin Bloom's *Learning for Mastery* model, which emphasizes differentiated instructional practices as strategies to increase student achievement. Drawing from the principles of effective tutoring practices and learning strategies, mastery learning uses feedback, corrective procedures, and classroom assessment to inform instruction. Rather than focusing on changing content, this strategy endeavors to improve the process of mastering it.

In a mastery learning classroom, teachers follow a scope and sequence of concepts and skills in instructional units. Following initial instruction, teachers administer a brief formative assessment based on the unit's learning goals. The assessment gives students information, or feedback, which helps identify what they have learned well to that point (diagnostic) and what they need to learn better (prescriptive). Students who have learned the concepts continue their learning experience with enrichment activities, such as special projects or reports, academic games, or problem-solving tasks. Students who need more experience with the concept receive feedback paired with corrective activities, which offer guidance and direction on how to remedy their learning challenge. To be effective, these corrective activities must be qualitatively different from the initial instruction by offering effective instructional approaches and additional time to learn. Furthermore, learning goals or standards must be aligned with instruction (or opportunities to practice), corrective feedback, and evaluation.

Research on mastery learning across grade bands has shown positive cognitive and effective learning outcomes in students in general, including learners considered at risk of academic failure (Guskey & Gates, 1986). Most empirical research on this strategy was conducted over two decades ago; however, its founding principles have guided more recent effective instructional and measurement practices. Most of its components, such as the use of feedback, correction, and differentiated instruction, are well documented key tools in the education of students with special needs and English language learners. Results of observations in mastery learning classrooms have shown increased student achievement, retention of learned material, involvement in learning activities, and positive student affect (attitude and demeanor). In addition, the successful use of mastery learning has positive effects on teachers as well, as their expectations for student achievement improve.

### **Action Principles**

#### **For State**

1. Define learning goals or standards that are aligned to instructional units across content areas.
2. Collaborate with institutions of Higher Education to include information about mastery learning strategies in teacher preparation programs.

#### **For District**

1. Offer professional development events for teachers and administrators to enhance their capacity on how to implement the mastery learning strategies effectively (Guskey & Pigott, 1988).
2. Identify and provide access to research-based formative assessment tools to guide instruction for students who have learning difficulties.

#### **For School**

1. Deliver instruction through large and small group-based instructional techniques combined with progress monitoring and formative assessment. The results of assessment will guide development and delivery of individualized enrichment experiences for those who master the concepts and differentiated corrective learning for those who still need additional experience.

2. Provide opportunities for teams of teachers to plan and prepare procedures and materials to use for feedback, correctives, enrichment, and instructional alignment.
3. Combine teacher expertise and resources to enhance the classroom environment and collaboration (Guskey, 2007).

### References and Resources

- Bloom, B. S. (1971). Mastery learning. In J. H. Block (Ed.), *Mastery learning: Theory and practice* (pp. 47–63). New York: Holt, Rinehart & Winston.
- Guskey, T. R. (2007). Closing achievement gaps: Revisiting Benjamin S. Bloom’s “Learning for Mastery.” *Journal of Advanced Academics*, 19(1), 8-31.
- Guskey, T. R., & Gates, S. L. (1986). Synthesis of research on the effects of mastery learning in elementary and secondary classrooms. *Educational Leadership*, 43(8), 73-80.
- Guskey, T. R., & Pigott, T. D. (1988). Research on group-based mastery learning programs: A meta-analysis. *Journal of Educational Research*, 81, 197–216.
- Zimmerman, B. J., & Dibenedetto, M. K. (2008). Mastery learning and assessment: Implications for students and teachers in an era of high-stakes testing. *Psychology in the Schools*, 45(3), 206-216.