



## Differentiated Learning

Tracy A. Huebner

Today's classrooms are filled with diverse learners who differ not only culturally and linguistically but also in their cognitive abilities, background knowledge, and learning preferences. Faced with such diversity, many schools are implementing differentiated instruction in an effort to effectively address all students' learning needs.



February 2010

## What We Know

Researchers at the National Center on Accessing the General Curriculum define differentiated instruction as

a process to approach teaching and learning for students of differing abilities in the same class. The intent is to maximize each student's growth and individual success by meeting each student where he or she is . . . rather than expecting students to modify themselves for the curriculum. (Hall, 2002)

Although experts and practitioners acknowledge that the research on differentiated instruction as a specific practice is limited (Allan & Tomlinson, 2000; Anderson, 2007; Hall, 2002), solid research does validate a number of practices that provide the foundation of differentiation. These practices include using effective classroom management procedures; promoting student engagement and motivation; assessing student readiness; responding to learning styles; grouping students for instruction; and teaching to the student's *zone of proximal development* (the distance between what a learner can demonstrate without assistance and what the learner can do with assistance) (Allan & Tomlinson, 2000; Ellis & Worthington, 1994; Vygotsky, 1978).

Moreover, a growing body of research shows positive results for full implementation of differentiated instruction in mixed-ability classrooms (Rock, Gregg, Ellis, & Gable, 2008). In one three-year study, Canadian scholars researched the application and effects of differentiated instruction in K–12 classrooms in Alberta. They found that differentiated instruction consistently yielded positive results across a broad range of targeted groups. Compared with the general student population, students with mild or severe learning disabilities received more benefits from differentiated and intensive support, especially when the differentiation was delivered in small groups or with targeted instruction (McQuarrie, McRae, & Stack-Cutler, 2008).

Tieso (2005) studied 31 math teachers and 645 students and found that differentiated instruction was effective for keeping high-ability students challenged in heterogeneous classrooms. In this study, preassessments prior to a three-week unit on statistics and probability indicated that high-performing students brought greater levels of prior knowledge to the start of the unit. Those students who were taught using a differentiated curriculum that supplemented the textbook curriculum and were placed in various groups according to their performance level demonstrated significantly higher achievement on the post-test than did high-performing students who were taught using the textbook curriculum and whole-class instruction. She concluded that revising and differentiating the curriculum, along with creating purposeful flexible grouping, may significantly improve students' mathematics achievement, especially for gifted students.

Lawrence-Brown (2004) confirms that differentiated instruction can enable students with a wide range of abilities—from gifted students to those with mild or even severe disabilities—to receive an appropriate education in inclusive classrooms. Building on Vaughn, Bos, and Schumm's (2000) basic, three-level planning pyramid and Tomlinson and Kalbfleisch's (1998) work on differentiated classrooms, Lawrence-Brown explains how a teacher might address some students' individualized education plan goals by adapting the classroom curriculum to include manipulatives, visual

aids, charts, audiotapes, and explicit expectations, while also offering an enriched curriculum to gifted students.

Baumgartner, Lipowski, and Rush (2003) studied a program to improve reading achievement among elementary and middle school students using differentiated instructional strategies, including flexible grouping, student choice of learning tasks, self-selected reading time, and access to a variety of texts. In all three of the classrooms in the study, the targeted students improved their decoding, phonemic, and comprehension skills. Student attitudes about reading and their own abilities also improved.

## What You Can Do

According to Tomlinson and Strickland (2005), teachers usually differentiate instruction by adjusting one or more of the following: the content (what students learn); the process (how students learn); or the product (how students demonstrate their mastery of the knowledge or skills). However, there is no one-size-fits-all model for differentiated instruction; it looks different depending on the prior knowledge, interests, and abilities students bring to a learning situation.

Across the literature, experts (Anderson, 2007; Rock, Gregg, Ellis, & Gable, 2008; Tomlinson, 2000) suggest these guiding principles to support differentiated classroom practices:

- Focus on the essential ideas and skills of the content area, eliminating ancillary tasks and activities.
- Respond to individual student differences (such as learning style, prior knowledge, interests, and level of engagement).
- Group students flexibly by shared interest, topic, or ability.
- Integrate ongoing and meaningful assessments with instruction.
- Continually assess; reflect; and adjust content, process, and product to meet student needs.

Tomlinson (1999) examined school-level and district-level implementation of differentiated instruction and identified ways that education leaders can best support this change in practice. She recommends that leaders first develop a solid understanding of differentiated instruction so that they can present it coherently to teachers and provide committed school-level leadership. Leaders should also nurture different teaching models; encourage teachers to apply differentiation with flexibility, creativity, and choice; and provide teachers with high-quality professional development as well as time to collaborate, plan, and implement differentiation.

## Educators Take Note

Tomlinson (1999) offers a caveat: "For all its promise . . . effective differentiation is complex to use and thus difficult to promote in schools. Moving toward differentiation is a long-term change process" (p. 6). It is best to begin by seeking out the wisdom of other educators who have experience with differentiated instruction, ground your own practice in the theory, and learn in a way that is meaningful to you.

### References

- Allan, S. D., & Tomlinson, C. A. (2000). *Leadership for differentiating schools and classrooms*. Alexandria, VA: ASCD.
- Anderson, K. M., (2007). Differentiating instruction to include all students. *Preventing School Failure, 51*(3), 49–54.
- Baumgartner, T., Lipowski, M. B., & Rush, C. (2003). *Increasing reading achievement of primary and middle school students through differentiated instruction* (Master's research). Available from Education Resources Information Center (ERIC No. ED479203).
- Ellis, E. S., & Worthington, L. A. (1994). *Research synthesis on effective teaching principles and the design of quality tools for educators* (Technical Report No. 5). Eugene: University of Oregon, National Center to Improve the Tools of Educators.
- Hall, T. (2002). *Differentiated instruction* [Online]. Wakefield, MA: CAST. Available:

[www.cast.org/publications/nac/nac\\_diffinstruc.html](http://www.cast.org/publications/nac/nac_diffinstruc.html)

Lawrence-Brown, D. (2004). Differentiated instruction: Inclusive strategies for standards-based learning that benefit the whole class. *American Secondary Education* 32(3), 34.

McQuarrie, L., McRae, P., & Stack-Cutler, H. (2008). *Differentiated instruction provincial research review*. Edmonton: Alberta Initiative for School Improvement.

Rock, M., Gregg, M., Ellis, E., & Gable, R. A. (2008). REACH: A framework for differentiating classroom instruction. *Preventing School Failure*, 52(2), 31–47.

Tieso, C. (2005). The effects of grouping practices and curricular adjustments on achievement. *Journal for the Education of the Gifted*, 29(1), 60–89.

Tomlinson, C. A. (1999). Leadership for differentiated classrooms. *The School Administrator*, 56(9), 6–11.

Tomlinson, C. A. (2000). Differentiation of instruction in the elementary grades. *ERIC Digest*. Available: [www.ericdigests.org/2001-2/elementary.html](http://www.ericdigests.org/2001-2/elementary.html)

Tomlinson, C., & Kalbfleisch, M. L. (1998). Teach me, teach my brain: A call for differentiated classrooms. *Educational Leadership*, 56(3), 52–55.

Tomlinson, C. A., & Strickland, C. A. (2005). *Differentiation in practice: A resource guide for differentiating curriculum, grades 9–12*. Alexandria, VA: ASCD.

Vaughn, S., Bos, C., & Schumm, J. (2000). *Teaching exceptional, diverse, and at-risk students in the general education classroom* (2nd ed.). Boston: Allyn and Bacon.

Vygotsky, L. S., (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

---

**Tracy A. Huebner** is Senior Research Associate at WestEd, San Francisco, California; [thuebne@wested.org](mailto:thuebne@wested.org).

---