

# **Differentiated Instruction Adjusting to the Needs of All Learners**

by Mary Ann Corley

*How can classroom teachers maximize the learning potential of their ABE students while, at the same time, attending to differences among them? Instead of expecting learners to adjust to the lessons they plan, teachers need to plan their lessons to adjust to the learners at hand. The challenge is for teachers to ensure that the needs of all learners are equally valued and equally served. Differentiated instruction is an approach that does just this. This article defines differentiated instruction; describes ways in which teachers can differentiate content, process, and product; suggests instructional strategies; and outlines challenges in implementing differentiated instruction.*

Differentiated instruction is an approach that enables teachers to plan strategically to meet the needs of every student. It is rooted in the belief that there is variability among any group of learners and that teachers should adjust instruction accordingly (Tomlinson, 1999, 2001, 2003).

Differentiated instruction has only recently gained ground in ABE. The cornerstone of differentiation is active planning: the teacher plans instruction strategically to meet learners where they are and to offer multiple avenues through which they can access, understand, and apply learning. In differentiating lessons to be responsive to the needs of each learner, teachers must take into account not only the content, but also the individual students. They need to know the varying readiness levels, interests, and learning profiles of each of their students and then design learning options to tap into these three factors.

Evidence indicates that students are more successful in school and are more engaged if they are taught in ways that are responsive to their readiness levels (Vygotsky, 1986), their interests (Csikszentmihalyi, 1990), and their learning profiles (Sternberg et al., 1998). According to Tomlinson (2001, 2003), in adopting differentiated instruction, teachers try to address these three characteristics for each student.

## **Readiness**

Readiness refers to a student's knowledge, understanding, and skill related to a particular sequence of learning. It is influenced by a student's cognitive proficiency as well as prior learning, life experiences, and attitudes about school. Readiness can vary widely over time, and according to topic and circumstance. As Tomlinson (2003) points out, if readiness levels in a class vary, so must the complexity of work provided. Tiered activities are one way to address readiness effectively; for example, all students study the same concept but complete activities appropriate to their readiness levels. Readiness also can be addressed through small group sessions or the provision of one-to-one teacher and peer support or coaching.

## **Interest**

Interest arises from topics that evoke curiosity and passion in students and in which they want to invest time and energy to learn about. When a student's interests are tapped, that student is more likely to be engaged and to persist in learning (Csikszentmihalyi, 1990; Maslow, 1962; Sousa, 2001; Wolfe, 2001).

## **Learning Profile**

Learning profile refers to how a student learns best. Preferences for learning are shaped by learning style, intelligence preference, culture, and gender. Teachers differentiate by learning profile when they provide learning activities that offer students choices for demonstrating mastery of learning: journals, videotape presentations, role plays, oral histories, or project-based learning.

## Content and Process

In response to the learner characteristics of readiness, interest, and learning profile, teachers can differentiate, or modify, learning experiences in the three areas of content, process, and product (Tomlinson, 1999, 2001, 2003). Content refers to what students need to learn: the major concepts, principles, and skills that are taught. Teachers should adjust the degree of complexity using diverse instructional processes to teach the content. In this way, all students learn the same concepts but in different ways.

Process refers to ways in which the content is taught: the activities that help students understand and eventually own the concepts and skills being taught. (For examples of processes, see the box below). The key to differentiating process is flexible grouping, in which learners are sometimes grouped by readiness levels, sometimes by interest, and sometimes by learning profiles. For example, an instructor might group learners with a similar readiness level for reading instruction and then regroup them by interest to discuss current events or a movie they have all viewed. This approach also supports the growth of a strong community of learners among everyone in the class. It would be difficult to differentiate instruction without using flexible grouping.

### Techniques for Differentiating Instruction

To manage effectively the differentiation of process, teachers need to employ a range of instructional strategies (Tomlinson, 1999), such as:

- Setting up stations in the classroom where different learners can work simultaneously on various tasks. Such stations naturally invite flexible grouping.
- Having students set agendas, or personalized lists of tasks to complete in a specified time, usually two or three weeks.
- Structuring problem-based learning to have students actively solve problems, either individually or in small groups, much the same way that professionals perform their jobs (this also supports building a community of learners).
- Assigning tiered activities to allow learners to work on the same concepts but with varying degrees of complexity, abstractness, and open-endedness.
- Using entry points (Gardner, 1994) so that learners can explore a topic through as many as five avenues: narrative (presenting a story), logical-quantitative (using numbers), foundational (examining philosophy and vocabulary), aesthetic (focusing on sensory features), and experiential (hands-on).
- Using choice boards from which learners can select one of several work assignments that are printed on cards and affixed to the choice boards.
- Employing compacting: teachers assess learners' knowledge and skills before beginning a specific unit of study and allow learners who do well on the preassessment to move on to more advanced work.
- Chunking, or breaking assignments and activities into smaller, more manageable parts, and providing more structured directions for each part.
- Encouraging students to use different tools to perform the same task: paper/pencil, manipulatives, computer.
- Using flexible pacing to allow for differences in students' ability to master the key concepts.
- Encouraging independent study for students who want to work on their own on topics of interest to them.
- Using portfolios as a means for reflecting on student growth over time.

## Products

Products allow students to demonstrate whether they have learned the key concepts and skills of a unit and to apply the learning to solve problems and take action. Different students can create different products based on their own readiness levels, interests, and learning preferences (Tomlinson, 2001). Students should be given a choice of four or five products from which they may select to demonstrate mastery of learning. Students also may elect to work alone or in small groups on their products. Examples of products include a written report, an oral presentation, a group discussion on key concepts, a short book in which the key concepts are explained and described, a game centered around the characters and theme of a book, or an event planned within a specified budget.

## Challenges and Conclusion

The greatest challenge to implementing differentiated instruction relates to time: the planning time that teachers need to assess learners' needs, interests, and readiness levels; to determine key concepts and organizing questions; and to design appropriate activities for each learner. The next issue relates to classroom management and the changing role of the teacher from dispenser of knowledge to facilitator of learning. The third issue concerns the need for teachers to acquire and use strategies that may be new to them. The only way to address all these concerns is through effective professional development that strongly encourages teachers to apply the skills and then provides coaching throughout the process of moving toward differentiation as a teaching approach.

It takes the commitment of teachers, administrators, and students to make differentiation a reality. For teachers and students, the challenge is to move comfortably into a new instructional paradigm. For administrators, the challenge is to support teachers' professional development, provide teachers access to a variety of instructional materials, and encourage the use of new methodologies and teacher support networks or peer coaching ([Smith et al., 2003- PDF](#)). Through out the process, administrators need to be the keepers of the vision of an instructional program that responds to the needs of all learners. A differentiated classroom offers appropriate levels of challenge according to learners' abilities, interests, and preferred learning profile, and maximizes learners' potential.

## References

- Campbell, L., & Campbell, B. (1999). *Multiple Intelligences and Student Achievement: Success Stories from Six Schools*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Csikszentmihaly, M. (1990). *Flow: The Psychology of Optimal Experience*. New York: Harper & Row.
- Csikszentmihaly, M., Rathunde, K., & Whalen, S. (1993). *Talented Teenagers: The Roots of Success and Failure*. New York: Cambridge University Press.
- Erickson, L. (1998). *Concept-Based Curriculum and Instruction: Teaching Beyond the Facts*. Thousand Oaks, CA: Corwin Press.
- Gardner, H. (1994). "Reflections on multiple intelligences: Myths and messages." *Phi Delta Kappan*, 78(5), 200-207.
- Howard, P. (1994). *An Owner's Manual for the Brain*. Austin, TX: Leornian Press.
- Jensen, E. (1998). *Teaching with the Brain in Mind*. Alexandria, VA: Association for Supervision and Curriculum Development.

Kesner, R., Bolland, B., & Dakis, M. (1993). "Memory for spatial locations, motor responses, and objects: Triple dissociation among hippocampus, caudate nucleus, and extrastriate visual cortex." *Experimental Brain Research*, 93, 462-470.

Keaverns, E., Nevison, C., & Martel, F. (1997). "Early learning and the social bond." In C.S. Carter, I.I. Lederhendler, & B. Kirkpatrick (eds.). *The integrative neurobiology of affiliation. Annals of the New York Academy of Sciences*, 807, 329-330.

Maslow, A. (1962). *Toward a Psychology of Being*. New York: Van Nostrand Reinhold.

National Research Council (1999). *How People Learn: Brain, Mind, Experience, and School*. Washington, DC: National Academy Press.

Pally, R. (1997). "How brain development is shaped by genetic and environmental factors." *International Journal of Psycho-Analysis*, 78, 587-593.

Pettig, K. (2000). "On the road to differentiated practice." *Educational Leadership*, 58, 14-18.

Smith, C., Hofer, J., Gillespie, M., Solomon, M., & Rowe, K., (2003). *How Teachers Change: A Study of Professional Development in Adult Education*, NCSALL Reports #25. Boston: National Center for the Study of Adult Learning and Literacy.

Sousa, D. (2001). *How the Brain Learns* (2nd ed.). Thousand Oaks, CA: Corwin Press.

Sternberg, R., Torff, B., & Grigorenko, E. (1998). "Teaching triarchically improves student achievement." *Journal of Educational Psychology*, 90, 374-384.

Tomlinson, C. (1995). "Deciding to differentiate instruction in middle school: One school's journey." *Gifted Child Quarterly*, 39, 77-87.

Tomlinson, C. (1999). *The Differentiated Classroom: Responding to the Needs of All Learners*. Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C. (2000). "Reconcilable differences? Standards-based teaching and differentiation." *Educational Leadership*, 58(4), 6-11.

Tomlinson, C. (2001). *How to Differentiate Instruction in Mixed-Ability Classrooms* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C., (2003). *Fulfilling the Promise of the Differentiated Classroom: Strategies and Tools for Responsive Teaching*. Alexandria, VA: Association for Supervision and Curriculum Development.

Vygotsky, L. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.

Vygotsky, L. (1986). *Thought and Language*. (A. Kozulin, trans. & ed.). Cambridge, MA: The MIT Press. (Original work published in 1934.)

Watson, K. (1985). "Mixed ability classrooms produce superior results." *Highway One*, 8, 57-63.

Wolfe, P. (2001). *Brain Matters: Translating Research into Classroom Practice*. Alexandria, VA: Association for Supervision and Curriculum Development.

### **About the Author**

Mary Ann Corley is Principal Research Analyst for the American Institutes for Research, currently serving as

director of the California Adult Literacy Professional Development Project (CALPRO) and as professional development specialist for the National Reporting System project. She was director of the National Adult Literacy and Learning Disabilities (ALLD) Center, leading the development and national training effort on Bridges to Practice. From 1988 to 1996, she was Maryland State GED Administrator and has many years of experience as a local adult education program supervisor and teacher of ABE, GED, and ESOL.

## **The Theory**

Underpinning the concept of differentiation is a compilation of many educational theories and practices. Many teachers assert that their class rooms have been transformed significantly and for the better by differentiated instruction (Tomlinson, 1995, 2000), pointing toward differentiation as a promising practice. There nevertheless remains a need for empirical validation of differentiated instruction as a package. Tomlinson (1999, 2001, 2003) cites these principles, which are basic to any good teaching, as critical to and the foundation for successful differentiated instruction.

The learning environment must make students feel emotionally safe before learning will take place (Howard, 1994; Jensen, 1998). This means that teachers demonstrate and encourage an openness to and respect for student differences, and that they value all learners (Watson, 1985; Tomlinson, 2001; Pettig, 2000). They provide places within the learning environment where individual students can work quietly and other places that invite student collaboration. They establish a routine for providing support to all students through individualized and small group work, direct instruction when needed, and peer coaching. They select learning materials that reflect a variety of cultures and home settings, and they celebrate successes.

Humans learn best with moderate challenge (Csikszentmihalyi et al., 1993; Howard, 1994; Jensen, 1998; National Research Council, 1999; Sousa, 2001; Vygotsky, 1978, 1986; Wolfe, 2001). This means that the learning tasks must be neither too easy nor too hard, but at an appropriate level to challenge growth. The difficulty of skills taught should be slightly above the learner's current level of mastery. Csikszentmihalyi (1990) refers to the state of "flow," the condition that exists when the learning task appropriately challenges learners so that they remain engaged in and excited about learning. This is the state in which learners are at their most productive and most creative.

Learning is the construction of understanding, with each learner needing to make his or her own meaning of the ideas and skills being taught. Therefore, effective teaching is based on concepts rather than so-called factoids. With concept-based teaching, learners are more likely to construct and enhance frameworks of meaning, understand the relationship of the parts to the whole, and relate the subject to their own life and to other topics (Kesner et al., 1993). They also are more likely to retrieve and remember the ideas and information (Erickson, 1998) and to use the ideas more readily (Keaverns et al., 1997). In addition, learning occurs more readily when the brain is actively engaged in solving problems and applying ideas than when it passively absorbs information (Pally, 1997).

This page is located at: <http://www.ncsall.net/?id=736>. Summarized by Bella Hanson

### **Questions for individual consideration or group discussion:**

Have you grouped students by readiness level? By interest? By learning profile? Were the outcomes different from random grouping?

Which of the "Techniques for Differentiating Instruction" appeal to you as your work with your group of students?

Do you think your students would be interested in creating a product? Do you feel that the time spent creating the product would be well spent?

The article states that DI has only recently gained ground in ABE. Do you agree with this statement?



Project-based learning allows students to work at their own pace and encourages them to push themselves to the next level. How can you include project-based learning in your classes? Start small with a lesson that seems to take a lot of effort for your students to understand. At the end of the day, choosing the right differentiated instruction strategies depends on the needs of you and your students. Some methods take more time, but could make a big difference in how your students perform in the long run. Others are quick and easy to implement and will provide just the right amount of balance in your classes. However, if you're scrambling to find time to implement even one of these strategies, consider our last suggestion - using digital curriculum. Differentiation of instruction is necessary to meet the varied learning needs of diverse learners in social studies classes, especially gifted students. Curriculum compacting provides time for enrichment and/or acceleration for gifted learners. This guide provides conceptual as well as practical information for meeting the needs of all learners in heterogeneous classrooms. The first six sections discuss the growing heterogeneity in today's classrooms, the rationale for differentiated teaching and learning, the changing roles of teachers and students, the importance of creating classroom communities that nurture diversity, helpful ideas for organizing a classroom in which differentiated teaching and learning is practiced, and a step-by-step process for differentiation.