NATIONAL CENTER ON ACCESSING THE GENERAL CURRICULUM

NCAC

Differentiated Instruction

Effective Classroom Practices Report

IDEAs that Work
U.S. Office of Special Education Programs

Differentiated Instruction
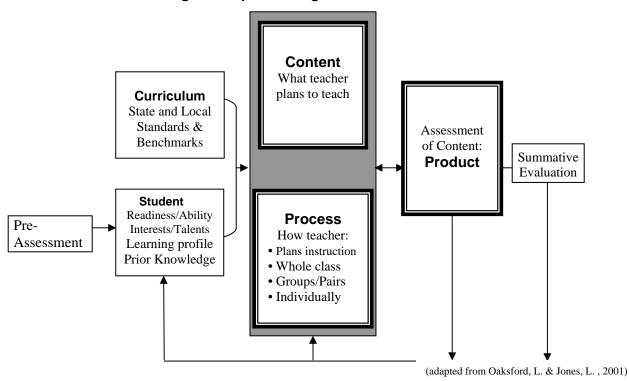
By Tracey Hall, Ph.D., Senior Research Scientist, NCAC

Introduction

Not all students are alike. Based on this knowledge, differentiated instruction applies an approach to teaching and learning so that students have multiple options for taking in information and making sense of ideas. The model of differentiated instruction requires teachers to be flexible in their approach to teaching and adjusting the curriculum and presentation of information to learners rather than expecting students to modify themselves for the curriculum. Classroom teaching is a blend of whole-class, group and individual instruction. Differentiated Instruction is a teaching theory based on the premise that instructional approaches should vary and be adapted in relation to individual and diverse students in classrooms.

Definition

To differentiate instruction is to recognize students varying background knowledge, readiness, language, preferences in learning, interests, and to react responsively. Differentiated instruction is a process to approach teaching and learning for students of differing abilities in the same class. The intent of differentiating instruction is to maximize each student's growth and individual success by meeting each student where he or she is, and assisting in the learning process.

**Learning Cycle and Decision Factors Used in
Planning and Implementing Differentiated Instruction**

(adapted from Oaksford, L. & Jones, L. , 2001)

Identifying Components/Features

According to the authors, several key elements guide differentiation in the education environment. Tomlinson (2001) identifies three elements of the curriculum that can be differentiated: Content, Process, and Products. Additionally, several guidelines are noted to help educators form an understanding and develop ideas around differentiating instruction.

Content

- *Several elements and materials are used to support instructional content*. These include acts, concepts, generalizations or principles, attitudes, and skills. The variation seen in a differentiated classroom is most frequently the manner in which students gain access to important learning. Access to the content is seen as key.

- *Align tasks and objectives to learning goals.* Designers of differentiated instruction determine as essential the alignment of tasks with instructional goals and objectives. Goals are most frequently assessed by many high-stakes tests at the state level and frequently administered standardized measures. Objectives are frequently written in incremental steps resulting in a continuum of skills-building tasks. An objectives-driven menu makes it easier to find the next instructional step for learners entering at varying levels.

- *Instruction is concept-focused and principle-driven.* The instructional concepts should be broad based and not focused on minute details or unlimited facts. Teachers must focus on the concepts, principles and skills that students should learn. The content of instruction should address the same concepts with all students but be adjusted by degree of complexity for the diversity of learners in the classroom.

Process

- *Flexible grouping is consistently used.* Strategies for flexible grouping are essential. Learners are expected to interact and work together as they develop knowledge of new content. Teachers may conduct whole-class introductory discussions of content big ideas followed by small group or pair work. Student groups may be coached from within or by the teacher to complete assigned tasks. Grouping of students is not fixed. Based on the content, project, and on-going evaluations, grouping and regrouping must be a dynamic process as one of the foundations of differentiated instruction.

- *Classroom management benefits students and teachers*. Teachers must consider organization and instructional delivery strategies to effectively operate a classroom using differentiated instruction. Carol Tomlinson (2001) identifies 17 key strategies for teachers to successfully meet the challenge of designing and managing differentiated instruction in her text How to Differentiate Instruction in Mixed-Ability Classrooms, Chapter 7.

Products

- *Initial and on-going assessment of student readiness and growth are essential.* Meaningful pre-assessment naturally leads to functional and successful differentiation. Assessments may be formal or informal, including interviews, surveys, performance assessments, and more formal evaluation procedures. Incorporating pre and on-going assessment informs teachers to better provide a menu of approaches, choices, and scaffolds for the varying needs, interests and abilities that exist in classrooms of diverse students.

- *Students are active and responsible explorers.* Teacher's respect that each task put before the learner will be interesting, engaging, and accessible to essential understanding and skills. Each child should feel challenged most of the time.

- *Vary expectations and requirements for student responses.* Items to which students respond may be differentiated for students to demonstrate or express their knowledge and understanding. A well-designed student product allows varied means of expression, alternative procedures, and provides varying degrees of difficulty, types of evaluation, and scoring.

Guidelines that make differentiation possible for teachers to attain**:**

- *Clarify key concepts and generalizations* to ensure that all learners gain powerful understandings that serve as the foundation for future learning. Teachers are encouraged to identify essential concepts and instructional foci to ensure all learners comprehend.

- *Use assessment as a teaching tool to extend versus merely measure instruction.* Assessment should occur before, during, and following the instructional episode, and help to pose questions regarding student needs and optimal learning.

- *Emphasize critical and creative thinking* as a goal in lesson design. The tasks, activities, and procedures for students should require that students understand and apply meaning. Instruction may require supports, additional motivation, varied tasks, materials, or equipment for different students in the classroom.

- *Engaging all learners is essential.* Teachers are encouraged to strive for development of lessons that are engaging and motivating for a diverse class of students. Vary tasks within instruction as well as across students. In other words, and entire session for students should not consist of all drill and practice, or any single structure or activity.

- *Provide a balance between teacher-assigned and student-selected tasks.* A balanced working structure is optimal in a differentiated classroom. Based on pre-assessment information, the balance will vary from class-to-class as well as lesson-to-lesson. Teachers should assure that students have choices in their learning.

Evidence of Effectiveness

Differentiation is recognized to be a compilation of many theories and practices. Based on this review of the literature of differentiated instruction, the "package" itself is lacking empirical validation. There is an acknowledged and decided gap in the literature in this area and future research is warranted.

According to the proponents of differentiation, the principles and guidelines are rooted in years of educational theory and research. For example, differentiated instruction adopts the concept of "readiness". That is the difficulty of skills taught should be slightly in advance of the child's current level of mastery. This is grounded in the work of Lev Vygotsky (1978), and the zone of proximal development (ZPD), the range at which learning takes place. The classroom research by Fisher at al.(1980), strongly supports the ZPD concept. The researchers found that in classrooms where individuals were performing at a level of about 80% accuracy, students learned more and felt better about themselves and the subject area under study (Fisher, 1980 in Tomlinson, 2000).

Other practices noted as central to differentiation have been validated in the effective teaching research conduced from the mid 1980's to the present. These practices include effective management procedures, grouping students for instruction, and engaging learners (Ellis and Worthington, 1994).

While no empirical validation of differentiated instruction as a package was found for this review, there are a generous number of testimonials and classroom examples authors of several publications and Web sites provide while describing differentiated instruction. Tomlinson reports individual cases of settings in which the full model of differentiation was very promising. Teachers using differentiation have written about improvements in their classrooms. (See the links to learn more about differentiated instruction).

Applications to General Education Classroom Settings

The design and development of differentiated instruction as a model began in the general education classroom. The initial application came to practice for students considered gifted who perhaps were not sufficiently challenged by the content provided in the general classroom setting. As classrooms have become more diverse with the introduction of inclusion of students with disabilities, and the reality of diversity in public schools, differentiated instruction has been applied at all levels for students of all abilities.

Many authors of publications about differentiated instruction strongly recommend that teachers adapt the practices slowly, perhaps one content area at a time. Additionally, these experts agree that teachers should work together to develop ideas and menus of options for students together to share the creative load. As noted previously, studies on the package of differentiated instruction are lacking. However, proponents note that reports of the full model of differentiation are promising.

Links to Learn More About Differentiated Instruction

Guild, P.B., and Garger, S (1998). What Is Differentiated Instruction? *Marching to Different Drummers* **2nd Ed. (ASCD, p.2)**
http://www.ascd.org/pdi/demo/diffinstr/differentiated1.html
> Initially published in 1985, *Marching to Different Drummers* was one of the first sources to pull together information on what was a newly-flourishing topic in education. Part I defines style and looks at the history of style research; Part II describes applications of style in seven areas; Part III identifies common questions and discusses implementation and staff development.

Tomlinson, C.A., (2000). Differentiation of instruction in the elementary grades. ERIC Digest. ERIC_NO: ED443572.
http://ericir.syr.edu/plweb-cgi/obtain.pl
> To meet the needs of diverse student populations, many teachers differentiate instruction. This digest describes differentiated instruction, discusses the reasons for differentiated instruction, what makes it successful, and suggests how teachers may begin implementation.

Tomlinson, C.A., (1995). Differentiating instruction for advanced learners in the mixed-ability middle school classroom. ERIC Digest E536.
http://www.ed.gov/databases/ERIC_Digests/ed389141.html
> The ability to differentiate instruction for middle school aged learners is a challenge. Responding to the diverse students needs found in inclusive, mixed-ability classrooms is particularly difficult. This digest provides an overview of some key principles for differentiating instruction, with an emphasis on the learning needs of academically advanced students.

Tomlinson, C.A., & Allan, S. D., (2000). Leadership for differentiating schools and classrooms. Association for Supervision and Curriculum Development.
http://www.ascd.org/readingroom/books/tonlinson00book.html
> This Web site contains two chapters from Tomlinson's recent publication: *Leadership for differentiating schools and classrooms*, Association for Supervision and Curriculum Development. This book is designed for those in leadership positions to learn about differentiated instruction.

Web Article: Mapping a route toward differentiated instruction.
http://www.ascd.org/pdi/demo/diffinstr/tomlinson2.html
> Carol Ann Tomlinson, an Associate Professor of Educational Leadership, Foundations and Policy at the Curry School of Education, University of Virginia, Charlottesville, VA provides an article entitled; Mapping a route toward differentiated instruction. Educational Leadership, 57,1.

Willis, S. & Mann, L., (2000). Differentiating instruction: Finding manageable ways to meet individual needs (Excerpt). Curriculum Update.
http://www.ascd.org/readingroom/cupdate/200/1win.html

Based on the concept that "one size does not fit all" the authors describe the teaching philosophy of differentiated instruction. More teachers are determined to reach all learners, to challenge students who may be identified as gifted as well as students who lag behind grade level. This article excerpt describes the essential components of differentiated instruction beginning with three aspects of curriculum: content, process and products.

The Association for Supervision and Curriculum Development (ASCD) Web site
www.ascd.org/pdi/demo/diffinstr/differentiated1.html

A site by ASCD (2000) which discusses differentiated instruction. Page links to other pages with examples from a high school* and elementary school*, key characteristics of a differentiated classroom, benefits, related readings, discussion, and related links to explore. *might be good to look at for case story ideas

Educational Leadership Research Link
www.ascd.org/readingroom/edlead/0009/holloway.html

This Web site, provided by Educational Leadership, links the reader to a brief summary of an article by Holloway. The author has provided a bulleted summary regarding the principles and theories that drive differentiated instruction.

Holloway, J.H., (2000). Preparing Teachers for Differentiated Instruction.
Educational Leadership, **58 (1).**
http://web.uvic.ca/~jdurkin/edd401su/Differentiated.html

This site is from an education course by Dr. John Durkin. It includes a diagram with suggestions for approaches to differentiated instruction. It also includes a listing of what differentiated instruction is and is not, rules of thumb on how to instruct, and management strategies.

Theroux, P. (2001). Enhance Learning with Technology. Differential Instruction.
www.cssd.ab.ca/tech/oth/learn/differentiating.htm

Theroux provides a thorough site on differential instruction for a Canadian school district. Provides links to teacher attitudes, learning strategies, teacher resources, integrating technology, integrating outcomes, exploring projects, sample lesson plans*, planning projects, thinking skills, developing Web pages, assessing, and tutorials.

Web Site: for Teachers, Administrators, and Higher Education
www.teach-nology.com/litined/dif_instruction/

This web site is designed for educators and uses technology to inform teachers about current practices, literature, the law in education, as well as professional development. Additionally, links to articles including research on educational practices including links to information on differentiated instruction are included.

References

Ellis, E. S. and Worthington, L. A. (1994). *Research synthesis on effective teaching principles and the design of quality tools for educators*. University of Oregon: Technical Report No. 5 National Center to Improve the Tools of Educators.

> Effective teaching and by extension effective learning has been a focus of both current and historical and educational reform movements. With a focus on quality teaching, the authors have reviewed and consolidated empirically supported effective teaching principles derived from research and identified 10 principles that characterize what we know about effective teaching.

Oaksford, L. & Jones, L., 2001. Differentiated instruction abstract. Tallahassee, FL: Leon County Schools.

> The authors are teachers in the Leon County Schools in Florida. They have written a summary about the implementation of Differentiated Instruction in their schools. They emphasize the importance of content, process and product when executing these practices. With other teachers and administrators in the district, they developed an implementation guide and obtained professional development seminars to put differentiated instruction in place in their schools.

Pettig, K. L., (2000). On the road to differentiated. *Education Leadership, 8,* 1, 14-18.

> The author offers advice and input about implementation of differentiated instruction. A school district Coordinator in New York State, Pettig provides practical and practiced strategies for teachers and schools considering adopting the principles of differentiated instruction. This district had five years of experience with differentiated instruction when the article was written.

Reis. S. M., Kaplan, S. N, Tomlinson, C. A., Westbert, K.L, Callahan, C. M., & Cooper, C. R., (1998). How the brain learns, A response: Equal does not mean identical**.** *Educational Leadershop, 56*, 3.

> The authors provide a response to an Educational Leadership article from March of 1998, in which the concept of de-tracking is introduced as a solution to high-academic standards for high school students. These authors put forth a compelling argument to raise student achievement. Students with different abilities, interests, and levels of motivation should be offered differentiated instruction that meets their individual needs

Sizer, T. R. *(2001).* No two are quite alike: Personalized learning. *Educational Leadership 57* (1).

> In this article, Sizer presents the rationale and logistics of "personalizing" instruction to meet the needs of students in classrooms of today. He addresses the leadership needs to personalize instruction and facing the concept knowing that adaptations to personalize or differentiate instruction will be in continual flux.

Tomlinson, C. A. (2001). *How to differentiate instruction in mixed-ability classrooms.* (2nd Ed.) Alexandria, VA: ASCD.

> Carol Ann Tomlinson has developed this 14-chapter text to define and describe Differentiated Instruction. Tomlinson suggests that it is feasible to prepare teachers to address the wide diversity of students in today's classrooms along with the realities of curricula and standards imposed on schools. She believes that there is room for both equity and excellence in classrooms and to teach well, teachers should attend to individual differences.

Tomlinson, C.A., & Allan, S. D. (2000). *Leadership for differentiating schools and classrooms.* Alexandria, VA: ASCD.

> The authors show how school leaders can encourage and support growth in classrooms. Information is provided and explanations are provided on how school leaders can support the development of responsive, personalized, and differentiated classrooms. Tomlinson and Allan illustrate how school administrators and leaders can encourage and support differentiated instruction for the diversity of students in our classrooms today.