

## **How to Differentiate Instruction**

### **What's All the Hype?**

Unfortunately, our images of school are almost factory images, so school is very standardized. But kids don't come in standard issue. The challenge is having teachers question the standardized notion of school and then helping kids realize there's a better way to do school. (Carol Ann Tomlinson, Associate Professor of Educational Leadership, Foundations, and Policy; The Curry School of Education, University of Virginia)

Effective teachers have been differentiating instruction for as long as teaching has been a profession. It has to do with being sensitive to the needs of your students and finding ways to help students make the necessary connections for learning to occur in the best possible way. In this day and age, we have extensive research available to us to assist us in creating instructional environments that will maximize the learning opportunities that will assist students in developing the knowledge and skills necessary for achieving positive learning outcomes.

### **What The Research Tells Us About Differentiate Instruction**

There are three bodies of research worth mentioning. They are:

- 1) Brain-based Research**
- 2) Learning Styles and Multiple Intelligences**
- 3) Authentic Assessment**

#### ***Brain-based Research on Learning***

Research on the brain has been used to inform educational practice for many years and is becoming more and more popular. Brain-based research helps us to know the many influences that can affect learning. The more we understand about "how" students learn best given the variables affect learning, the better equipped we are to provide instruction that will maximize learning outcomes.

Other valuable links on this topic can be found at:

[http://www.teach-nology.com/litined/brain\\_learning/](http://www.teach-nology.com/litined/brain_learning/)

#### ***Learning Styles and Multiple Intelligences***

Learning styles research is predominantly used to understand learning preferences that students use to receive and/or process information. Obviously, the ideal is to create instruction that will address all three learning styles: Visual, Auditory, and Kinesthetic.

Howard Gardner's Theory of Multiple Intelligences has received an overwhelming response from educators in the past several years. Gardner offers seven different ways to demonstrate intellectual ability and has recently added an eight intelligence. Understanding how students demonstrate their intellectual capacity is an important factor in designing instruction that will meet the specific learning needs of students who may be dominant in one or several intelligence as opposed to other forms of intelligence. More information on these topics can be found on:

[http://www.teach-nology.com/teachers/methods/multi\\_intelligences](http://www.teach-nology.com/teachers/methods/multi_intelligences)

#### ***Authentic Assessment***

Not enough can be said about authentic assessment. Basically, what it means is that students are tested on what they have been taught and hopefully, what they have learned. The greatest implications are that: curriculum is aligned with what is expected to be learned; strategies used to teach are according to students' needs; and assessment instruments used are flexible and adequately and appropriately used to measure on-going performance. The bottom line is that authentic assessment offers students the opportunity to "measure up" to the standards that are aligned to the curriculum. For more information on this very important topic, go to:

[http://www.teach-nology.com/currenttrends/alternative\\_assessment/](http://www.teach-nology.com/currenttrends/alternative_assessment/)

After having read what the research has to offer on differentiated instruction, specifically, brain-based research on learning, learning styles and multiple intelligences, and authentic assessment, you are now ready to plan.

### **Step 1- Know Your Students**

#### ***Determine the ability level of your students.***

This can be done by surveying past records of student performance to determine capabilities, prior learning, past experiences with learning, etc.

#### ***Survey student interests.***

It is also important to get to know your students informally. This can be done by an interest inventory, an interview/conference, or asking students to respond to an open-ended questionnaire with key questions about their learning preferences (depending on the age group).

#### ***Is behavior management a problem?***

This is key when planning for activities that require less structure. However, it is still important to determine learning styles and preferences for students who may have a hard time controlling their behaviors. Sometimes knowing preferences can help to motivate students to attend to any tasks that are presented.

### **Step 2- Have a Repertoire of Teaching Strategies**

Because "one size does not fit all," it is imperative that a variety of teaching strategies be used in a differentiated classroom. Among many teaching strategies that can be considered, there are four worth mentioning: direct instruction, inquiry-based learning, cooperative learning, and information processing models.

#### ***Direct Instruction***

This is the most widely used and most traditional teaching strategy. It is teacher centered and can be used to cover a great amount of material in the amount of time teachers have to cover what students need to learn. It is structured and is based on mastery learning. More information can be found on:

<http://www.teach-nology.com/teachers/methods/models/>

#### ***Inquiry-based Learning***

Inquiry-based learning has become very popular in teaching today. It is based on the scientific method and works very well in developing critical thinking and problem solving skills. It is student centered and requires students to conduct investigations independent of the teacher, unless otherwise directed or guided through the process of discovery. For more information, go to:

<http://www.teach-nology.com/currenttrends/inquiry/>

#### ***Cooperative Learning***

Probably one of the most misunderstood strategies for teaching is "cooperative learning." Yet, if employed properly, cooperative learning can produce extraordinary results in learning outcomes. It is based on grouping small teams of students heterogeneously according to ability, interest, background, etc. However, one of the most important features of cooperative learning is to pick the best strategy that will be used to assign the task for students to accomplish. The more popular strategies include JigsawII, STAD-Student Teams, or Group Investigation. For more information, go to:

[http://www.teach-nology.com/currenttrends/cooperative\\_learning/](http://www.teach-nology.com/currenttrends/cooperative_learning/)

#### ***Information Processing Strategies***

Teaching students "how to" process information is a key factor in teaching students how to strategically organize, store, retrieve, and apply information presented. Such strategies include, but are not limited to, memorization, KWL, reciprocal teaching, graphic organizing, scaffolding, or webbing. More information on this topic can be found at:

[http://www.teach-nology.com/teachers/methods/info\\_processing/](http://www.teach-nology.com/teachers/methods/info_processing/)

### **Step 3- Identify a Variety of Instructional Activities**

Engaging students in the learning process using activities that motivate and challenge students to remain on task is probably one of the most frustrating events in the teaching learning process. But if you know your students' profiles, you have a better chance at keeping them on task to completion of any given assignment or activity. In a differentiated classroom, activities are suited to the needs of students according to the mixed ability levels, interests, backgrounds, etc. For example, if you have English language learners in your class, you need to provide activities that are bilingual in nature or that provide the necessary resources for students to complete the activity with success. Good activities require students to develop and apply knowledge in ways that make sense to them and that they find meaningful and relevant. Ideas for activities can be found at:

[http://www.teach-nology.com/teachers/lesson\\_plans/](http://www.teach-nology.com/teachers/lesson_plans/)

### **Step 4- Identify Ways to Assess or Evaluate Student Progress**

Once again, we cannot assume that "one size fits all." As a result, varying means of student assessment is necessary if students are to be given every opportunity to demonstrate authentic learning. Authentic assessment has been around for a long time and is now taking the limelight as we attempt to measure students' progress in a fair and equitable way. A variety of assessment techniques can include portfolios, rubrics, performance-based assessment, and knowledge mapping. For more information on this topic go to:

[http://www.teach-nology.com/currenttrends/alternative\\_assessment/](http://www.teach-nology.com/currenttrends/alternative_assessment/)

### **The Bottom Line**

Differentiated instruction is about using teaching strategies that connect with individual student's learning strategies. The ultimate goal is to provide a learning environment that will maximize the potential for student success. The important thing to remember is to hold on to the effective teaching strategies that lead students to positive learning outcomes and to make adjustments when necessary. It's about being flexible and open to change. It's also about taking risks and trying teaching and learning strategies that you would have otherwise ignored. It's about managing instructional time in a way that meets the standards and also provides motivating, challenging, and meaningful experiences for school age students who are socialized to receive and process information in ways that require differentiation of experience. These are very exciting times for the teaching profession, we are faced with a generation of learners who are challenging us to think about how we deliver instruction.

### **More On Differentiated Instruction Strategies**