Differentiating In Response to Student Readiness

AISI Cycle V – Professional Development Day #2

February 27th, 2012
Differentiated instruction is a teaching philosophy based on the premise that teachers should adapt instruction to student differences.

Rather than marching students through the curriculum lockstep, teachers should modify their instruction to meet students’ varying readiness levels, learning preferences, and interests.

Therefore, the teacher proactively plans a variety of ways to ‘get at’ and express learning.

- Carol Ann Tomlinson
Differentiation

is a teacher’s response to learners’ needs

Guided by mindset and general principles of differentiation

- Respectful tasks
- Quality curriculum
- Teaching up
- Flexible grouping
- Continual assessment
- Building community

Teachers can differentiate through

- Content
- Process
- Product
- Affect
- Learning environment

According to students’

- Readiness
- Interest
- Learning profile

Using instructional strategies such as:

RAFTS, Graphic Organizers, Scaffolded Reading, Cubing, Think-Tac-Toe, Learning Contracts, Tiering, Learning/Interest Centers, Independent Studies, Intelligence Preferences, Orbitals, Complex Instruction, 4MAT, Web Quests & Web Inquiry, ETC.
"DI is mostly about what we do ahead of time, not how we interact or conduct the lesson at the time.

There are some good aspects going on in the classroom, but that facilitation can only occur with purposeful and thoughtful planning.

I can make flexible decisions because I've already prepared the resources or other avenues in anticipation of student needs.

Am I always prepared for everything? No way. I get better with time, however."

- Rick Wormeli
Principles of Differentiation

At your table group, please take a moment and reflect on the principles of differentiation!

Using your own knowledge of DI, fill in the table with your thoughts about each of the “principle” headings.

*Each principle will be re-examined after this opening activity.
Principle 1: Focus on the Essentials

- Differentiating instruction takes both time in and out of class.
- Requires teachers to identify the concepts in the curriculum that are absolutely essential to current and future learning. *(THE BIG IDEAS)*
- Decisions can be made…
  - Individually
  - As a team of teachers
  - As a school
Principle 2: Recognize that students are different

Every child in class is unique!

EVERY classroom in heterogeneously mixed by ability, interest, learning style, and life experiences, etc.

Principle 3: Assessment and Instruction are Inseparable

“One Size Fits All” assessment is out, on-going assessment is in!

Instruction is modified according the findings after assessment!
To learn a particular concept, some children need days; some, ten minutes, but the typical lockstep school schedule ignores this fundamental fact!

- Marilyn Hughes
Principle 4: All Students Participate in Respectful Work

- We assume that students enter our classes of mixed ability levels.
- We also assume that students master tasks at different paces.
- Differentiation provides activities that respect where a student begins and provides opportunity for growth.
  - Applies to both advanced and basic learners.
You’re wrong!

vs.

Why did you say that?

The success of education depends on adapting teaching to individual differences among learners.

- Yeuzheng, 4th Century BC Chinese Treatise, Xue Ji
Principle 5: The teacher and Students Collaborate in Learning

- The teacher **knows what skills and concepts are essential!**
- Ideally, students should have the opportunity to assist in design if possible.
- As a minimum, students should have a **choice** of methods to demonstrate skill mastery!

<table>
<thead>
<tr>
<th>K</th>
<th>What I Already Know</th>
<th>W</th>
<th>What I Want to Know</th>
<th>L</th>
<th>What I Have Learned</th>
</tr>
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**K.W.L. Chart**
Principle 6: Teacher Balances Group and Individual Norms

- Related to the principle of providing respectful work.
- The teacher must recognize that there is the goal of keeping the entire class “at grade level.”
- However, the teacher must also recognize and validate individual goals.
- A student who is still technically below grade level at the end of the year but has grown more than any other student deserves praise.
- Similarly, students who are well above grade level need to have the opportunity to make significant growth as well.
Principle 7: Teacher and Students Work Together Flexibly

- NOT EVERYONE WILL FINISH A TASK AT THE SAME TIME!!!

- Thoughtful planning is required to provide respectful work to students that will not leave them bored or struggling to keep up!

- Anchor activities are on-going activities that students work on independently!
Principle 8: The “Meat and Potatoes”

- When choosing to differentiate, the teacher must be very thoughtful and ask:
  - What am I going to differentiate?
  - How am I going to differentiate?
  - Why am I going to differentiate?
Principle 8: The Teacher Modifies Content, Process, and Product

- This is the “what” of differentiation!
- When choosing to differentiate the first question you should ask yourself is…
  - “Which of these three will I be differentiating?”
After choosing what to differentiate (content, process, or product) the teacher must ask…

- How will I differentiate and why am I choosing to do so?

Tomlinson states that a teacher can differentiate according to…

- Readiness
- Interest
- Learning Style
The good teacher communicates a deep regard for students' lives, a regard infused with unblinking attention, respect, even awe.

An engaged teacher begins with the belief that each student is unique, each the one and only who will ever trod the earth, each worthy of a certain reverence. Regard extends, importantly, to an insistence that students have access to the tools with which to negotiate and transform the world.

Love for students just as they are-without any drive or advance toward a future-is false love, enervating and disabling.

- Ayres, Klonsky, & Lyon, 2000
When a teacher tries to teach something to the entire class at the same time, chances are, one-third of the kids already know it; one-third will get it; and the remaining third won’t. So two-thirds of the children are wasting their time.

- Lilian Katz
Readiness

- Refers to an individual’s current proximity to, or proficiency with, a specific set of knowledge, understanding, and skills designated as essential to a particular segment of study.

- Teachers must ask themselves the question…

  “What is the degree of match between the student’s current level of knowledge, understanding, and skills and what he or she will be asked to do today (or this week, or in this unit)?”
Readiness vs. Ability

- Educators sometimes struggle with the difference between a student’s “readiness” level versus their “ability” label.

- Look at the following examples:
  - A student’s ability to speak English does not hinder their readiness to complete a multiplication task. Sometimes when teachers focus on ability, they will put a student in a low readiness group because of their English proficiency.
Readiness vs. Ability

- So the BIG UNDERSTANDING is that a student’s “readiness” has nothing to do with “ability”.

- If educators look at grouping students as the “Gifted” group, the “Regular Program” group, and/or the “Special Education” group, then the learning will not be as effective.

- But if educators will look at a student’s “readiness” level for each subject matter, then the learning becomes respectful.
Teachers looking for students’ readiness needs in specific content rather than focusing on students’ ability are working from the growth mindset!
It matters because...

- **ZPD**
  - Vygotsky’s concept of the zone of proximal development is based on the idea that development is defined both by what a child can do independently and by what the child can do when assisted by an adult or more competent peer (Daniels, 1995; Wertsch, 1991).
  - Knowing both levels of Vygotsky’s zone is useful for teachers, for these levels indicate where the child is at a given moment as well as where the child is going.
  - The zone of proximal development has several implications for teaching in the classroom.
According to Vygotsky, for the curriculum to be developmentally appropriate, the teacher must plan activities that encompass not only what children are capable of doing on their own but what they can learn with the help of others (Karpov & Haywood, 1998).

Vygotsky’s theory does not mean that anything can be taught to any child. Only instruction and activities that fall within the zone promote development.
For example, if a child cannot identify the sounds in a word even after many prompts, the child may not benefit immediately from instruction in this skill. Practice of previously known skills and introduction of concepts that are too difficult and complex have little positive impact. Teachers can use information about both levels of Vygotsky’s zone of proximal development in organizing classroom activities in the following ways:
Instruction can be planned to provide practice in the zone of proximal development for individual children or for groups of children. For example, hints and prompts that helped children during the assessment could form the basis of instructional activities.

Cooperative learning activities can be planned with groups of children at different levels who can help each other learn.
Scaffolding (Wood, Bruner, & Ross, 1976) is a tactic for helping the child in his or her zone of proximal development in which the adult provides hints and prompts at different levels.

In scaffolding, the adult does not simplify the task, but the role of the learner is simplified “through the graduated intervention of the teacher” (Greenfield, 1984, p. 119).
For example, a child might be shown pennies to represent each sound in a word (e.g., three pennies for the three sounds in “man”).

To master this word, the child might be asked to place a penny on the table to show each sound in a word, and finally the child might identify the sounds without the pennies.

When the adult provides the child with pennies, the adult provides a scaffold to help the child move from assisted to unassisted success at the task (Spector, 1992).
Differentiation "is making sure that the right students get the right learning tasks at the right time. Once you have a sense of what each student holds as 'given' or 'known' and what he or she needs in order to learn, differentiation is no longer an option; it is an obvious response. (Earl, 2003, pp. 86-87).

In a high school laboratory science class, a teacher might provide scaffolding by first giving students detailed guides to carrying out experiments, then giving them brief outlines that they might use to structure experiments, and finally asking them to set up experiments entirely on their own.
As suggested by Tomlinson and Sousa, the challenge when it comes to content, is the fact that students will be at various ZPD points.

We usually attempt to teach knowledge, understanding and skills as though everyone in the class was at the same readiness level…when it is likely that some will be in the “learning stage” while some are coasting and others are confused and frustrated.
Brain’s job is to help us survive, any new stimulus from the environment (classroom/teacher) is likely to catch students attention.

Specialized structures in the brain respond to the stimulus, communicate with the frontal lobe (control center) where the brain determines whether the stimulus poses a threat, and if so decide the appropriate action…fight or flight…for example.

Endorphins vs. Cortisol
Students who believe they can accomplish a learning task (task that lies in their ZPD) are likely to attempt and finish it!

If too easy...brain will identify as already have been accomplished...no novelty...no meaning...why do it?

“...kids must have at least two different choices on how to do things and...the teacher must have at least two different ways to teach the skill...”

Carol Ann Tomlinson
White Paper: Teaching in the Zone
Differentiating for Readiness

- Goal: Enable students to move beyond deficits from ineffective prior learning experiences and to progress to mastery of the currently required content.

- For those that have already mastered, the goal is to build bridges to substantive advanced learning so that they can continue their development.
Role of Classroom Elements

Interdependence of classroom elements is clear when teacher begins to make plans for addressing the various learner needs.
Tomlinson and Sousa provide guidelines for responding to student readiness in the differentiated classroom! (Pages 94-98)

Evident in these guidelines is the importance of pre-assessing students in order to determine their readiness in a unit or topic of study!
DI: Pre-Assessment Activity 3

Show what you know!
Pre-Assessment

How do we find out what they already know?

“A classroom where learners are provided with equal opportunity to learn, but are not expected to learn the same curriculum in the same way at the same time is the context that exemplifies differentiation.”

Dr. Sandra Kaplan
Teachers can differentiate according to student's readiness, interests, and learning profile through a range of instructional and management strategies such as:

- Multiple intelligences
  - Jigsaw
  - Taped material
  - Anchor activities
  - Varying organizers
  - Varied texts
  - Varied supplementary materials
  - Literature circles
- Tiered lessons
  - Tiered centers
  - Tiered products
  - Learning contracts
  - Small-group instruction
  - Group investigation
  - Orbits
  - Independent study
- 4MAT
  - Varied questioning strategies
  - Interest centers
  - Interest groups
  - Varied homework
  - Compacting
  - Varied journal prompts
  - Complex instruction

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Flexible Grouping

"One doesn't discover new lands without consenting to lose sight of the shore for a very long time."

-Andre Gide
**Whole group instruction:**

- Provides teachers and students the opportunity to engage in shared learning experiences.
- Since every student in the classroom is included in the learning experience, this format enhances a sense of community for students through discussions and review.
- The purpose of this instructional grouping may be to introduce initial concepts, provide the same content and/or same materials to all of the students at the same time, or to build world or prior knowledge to the students.
- Several activities may include discussions, review, speaking performances, modeling, read alouds.
Flexible Grouping

- In a differentiated classroom, whole group instruction activities may be used for pre-assessment activities (readiness, interest), introduction of concepts, planning, sharing, and wrap-up of explorations.
Small group instruction- same ability:

- This instructional format meets individual student needs.
- By targeting instruction to students with the same ability in small groups, the teacher can provide more practice on skill development, provide reinforcement, target instruction on a skill, and differentiate material for targeted instruction.
- The purpose is to provide small group instruction targeted to specific student needs.
Small Group: Mixed Ability:

- This instructional format allows for student choice and to group according to student interest.
- This format promotes language interactions for ELL and students with disabilities included in the regular education classroom.
- The purpose for small group- mixed ability groupings is to allow students the opportunity to extend and practice what they are learning in the content areas.
- Learning centers /station activities support small group- mixed ability instructional groupings as the instructional activities provide opportunities for students to extend their knowledge on critical skills and concepts.
In a differentiated classroom small group activities can be focused also for planning, directed teaching of targeted instruction, and investigation.
Student Pairs:

- This instructional format allows for all students to be engaged in the activity at the same time.
- The teacher can differentiate material according to the instructional reading level of the lowest functioning pair, while all students work on the material at the same time.
- Student partners/pairs function well at learning centers, practice and review activities, and for peer tutoring activities.
One-to-One Instructional Grouping:

- This instructional grouping provides the most intensive instruction.
- Instruction is targeted to the needs of the individual student.
- Teachers in differentiated instruction classrooms may also use this instructional grouping to assess the student to determine levels of performance, to identify and establish goals with each student, to progress monitor, to conference with a student or to implement intensive reading and math intervention programs.
In a differentiated classroom, individualized activities allow teachers options to offer acceleration and enrichment experiences to students who have already mastered curricular content and objectives in a certain area.

These options offer opportunities for students to increase knowledge in a particular curricular topic (e.g., independent study) and to practice and apply learned skills.
IF, as a teacher

- I present the same lessons in the same manner that I have used in the past;
- I seek no feedback from my students;
- I do not analyze and evaluate their work in a manner that changes my own emphasis, repertoire, and timing;
- I do not visit or observe other adults as they teach;
- I do not share the work of my students with colleagues for feedback, suggestions, and critiques;
- I do not visit other schools or attend particular workshops or seminars or read professional literature on aspects of my teaching;
- I do not welcome visitors with experience and expertise to observe and provide feedback to me on my classroom practice;
- I have no yearly individualized professional development plan focused on classroom changes to improve student learning; and finally,
- I have no systemic evaluation of my teaching tied to individual, grade/department, and school wide goals,

THEN I have absolutely no way to become better as a teacher.

(Source: Leadership for Learning: How to Help Teachers Succeed, Carl Glickman)
Exit Ticket

- Please take a few minutes to complete your exit ticket in as much detail as possible!
- Remember that your comments/suggestions will guide our future learning!

"Rather than considering whether you make a difference, remember - you are the difference."

-Sandy McDaniels