The Theory and Practice of Differentiated Instruction in American Classrooms

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One of the major challenges as an EFL teacher in elementary school is to meet the learning needs of students with the classrooms becoming increasingly diverse. Differentiated instruction is one solution to solve the problem on students with varying levels of readiness. DI (Differentiated Instruction) is not new. However, some misconceptions emerged after years of practices in differentiated instruction.

DI is very important because it is how teachers adapt and modify curriculum and materials to meet the needs of students. In this report, I will discuss differentiated instruction in terms of the main concepts and principles below as well as practices of differentiation instruction in American classrooms, in which I had observed during New Taipei City Educators Delegation trip.

Definition of Differentiated Instruction

Differentiation is an organized yet flexible way of proactively adjusting teaching and learning to meet kids where they are and help them to achieve maximum growth as learners (Tomlinson, 1999). DI does not mean labelling students by ability; however, it means flexible groupings that allow students to work with a variety of their classmates with the same or different strengths and interests. DI does not mean confining some students to low level, repetitive tasks while others work on higher thinking; however, it means interesting tasks based on student learning preferences, interests and levels of readiness. DI does not mean unlimited freedom for students to choose whatever they would like to do; however, it means reasonable choices that meet the needs of students. DI does not mean different students working on different expectations with varying success criteria; however, it means students working on the same curriculum expectations in different ways with common criteria for

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success. DI does not mean a chaotic classroom environment; however, it means routines, procedures, and classroom agreements are in order.

Before Differentiated Instruction-Knowing the Learners

When we find out who our students are, we can help them in their learning. Before starting Differentiated Instruction, we should gather information about students: their readiness, interests, and learning preferences.

I.Student Readiness

Information about a student's readiness to learn a particular concept is important when the instructor prepare to implement differentiate instruction. For example, some students may be ready to work with complex multiplication; others may need more practices with simple multiplication before they move on to complex multiplication. However, readiness is different from ability. Readiness is a student's entry point relative to a particular concept or skill at a given time (excerpted from EL Education Website). In other words, readiness means the student's prior knowledge and experiences.

II.Student Interests

A second information helps us in our teaching is our students' interests. If students can learn a new concept according to their interests, they have motivation to learn. How can a teacher to determine students' interests? We can use some ways to find out about students' interests: surveys, partner introductions, and asking questions to connect their interests with topics of study. Responding to differences in readiness helps students feel capable and increases their motivation to learn. Addressing student interests and learning preferences (e.g., through flexible grouping and providing choice) provides relevance and autonomy – factors key to student engagement (Willms and Friesen, 2012; Marzano and Pickering, 2010).

III.Student Learning Preferences

Student learning preferences describe students' tendencies to particular ways to learn. They include learning styles, intelligence and environmental preferences

(excerpted from EL Education Website). Learning styles preferences refer to how students prefer to get new information. Intelligence preferences are based on the multiple intelligences work of Howard Gardner and the triarchic intelligences work of Robert Sternberg (2001). Environmental preferences involve the conditions in which students learn best. Some students prefer silence when working; others prefer sound. Some prefer a structured, brightly lit environment; some prefer a casual corner with subdued lighting (excerpted from EL Education Website).

How to implement Differentiate Instruction

When we find out who our students are, by the information about their readiness, their interests and learning preferences, we can start DI. Teachers can differentiate four classroom elements: content, process, products, and learning environment (excerpted from The New South Wales Department of Education Annual Report, 2016).

I.Content

What students learn about and where they begin learning (e.g., topic, entry point).

II.Process

The ways we help students learn—through instruction and assessment (e.g., researching a topic at a learning center, participating in a jigsaw, identifying similarities and differences).

III.Products

The ways students demonstrate their learning—through assessment and evaluation (e.g., creating a product from a choice board, oral or written presentation).

IV.Learning Environment

Conditions for learning (e.g., quiet or busy, alone or with others).

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Ways of Organizing for Differentiated Instruction Structures

The DI structures that were outlined below allow teachers to easily vary the complexity or the form of the task for different learners. It is important that students and parents understand that all tasks are designed to address the same learning goals. Some of the more common differentiated structures include (excerpted from A Differentiated Instruction Educator's Guide, 2016):

I.Choice Boards

A choice board (see Figure 1) is a common differentiated structure used to provide students with choices. It is sometimes called a Tic-Tac-Toe assignment because of its design.

Choice Boards can be used to help students learn (i.e., instruction and assessment) or as a way for students to demonstrate their learning (i.e., evaluation). When an instructor design a choice board and any other differentiated instruction structure, all choices must meet the same learning goal and may be based on learners' interests (e.g., sports, music, art) or learning preferences (e.g., learning styles or multiple intelligences).
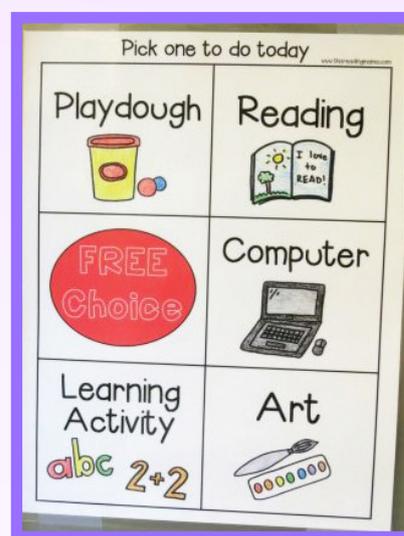

Figure 1. Choice Board

II.Cubing

Students roll a cube and do the activity on the side that comes up. We can differentiate a cube according to any of student readiness, learning preferences, or interests. The cubing is truly differentiated, it is important to provide some opportunities for choice with each roll such as two or more options per side.

Cubes can be designed for specific activities such as perspectives on a novel or different aspects of a history unit. Different cubes can be given to different groups and the activities varied to support readiness or learning preferences. We can make cubes and write the activities on the sides. (see Figure 2-4)
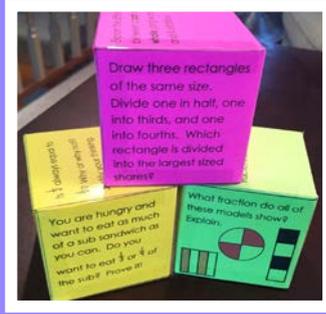
Figure 2-4. Cubing

III.Learning Centers or Stations

Centers provide different activities at various places in the classroom. Learning centers are not a differentiated structure if all students go to all centers and everyone does the same task at a center. In order to make tasks differentiated, learning centers either need to be attended only by students who need or are interested in, or the work at the center needed to be varied according to student readiness, interests or learning preferences.

During this delegation trip, when I observed Ms. O'Brien classroom at Josiah Quincy School, I did see the Learning Centers/Stations in her classroom. They were reading a story book called "Nasreen's Secret School: A True Story from Afghanistan," which was a true story about the girl- Nasreen. Young Nasreen has not spoken a word to anyone since her parents disappeared. In despair, her grandmother risks everything to enroll Nasreen in a secret school for girls. Will a devoted teacher, a new friend, and the worlds she discovers in books are enough to draw Nasreen out of her shell of sadness? (see Figure 5)
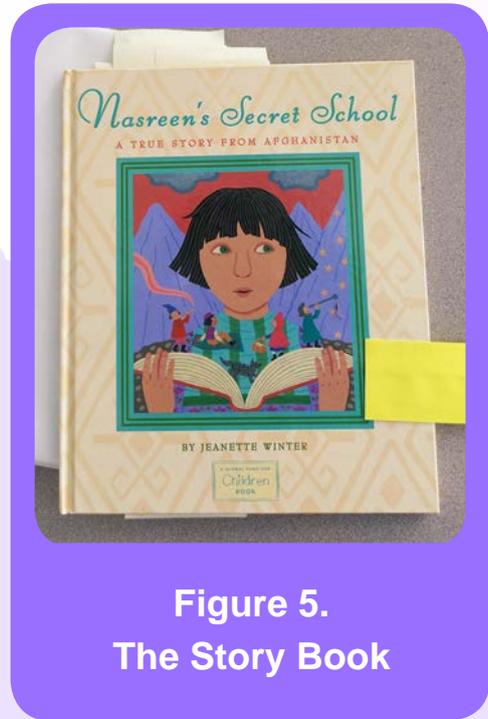

**Figure 5.
The Story Book**

Ms. O'Brien set up five reading centers—Meet with Ms. O'Brien Center, Technology Center, Fluency Center, Word Work Center, and Read to Self Center, and grouped her students into four groups by colors— Red Group, Yellow Group, Green Group, and Blue Group. Groups were taking turns to different Reading Centers (see Figure 6~7).
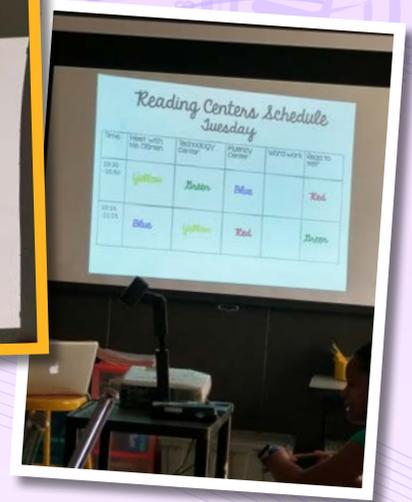

Figure 6. Groups

Figure 7. Tasks for Gruops

Meet with Ms. O'Brien Center was a kind of pull-out remedial instruction that she gave remedial instructions to students with learning disabilities. Technology Center was for students to read the story online with a laptop. At Fluency Center, students were taking turns to read aloud vocabulary/phrases cards from the story book to his or her groupmates. At Read to Self Center, actually the classroom library, students could choose any book they liked and read themselves. Below are the pictures I took when learners were doing their own task spontaneously and getting involved. (see Figure 8~12)

▲Figure 8. Meet with Ms. O'Brien Center

▲Figure 9. Technology Center

▲Figure 10. Fluency Center

▲Figure11. Read to Self Center

▲ Figure 12. Change to Different Learning Centers

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From 10:30~10:50, Yellow Group was at Ms. O'Brien Center. At the same time, Green Group at Technology Center, Blue Group at Fluency Center, and Red Group at Read to Self Center. From 10:55~11:15, Blue Group was with Ms. O'Brien Center, Yellow Group at Technology Center, Red Group at Fluency Center, and Green Group at Read to Self Center (see Table 1).

Time	Meet with Ms. O'Brien	Technology Center	Fluency Center	Read to Self Certer
10:30~10:50	Yellow	Green	Blue	Red
10:55~11:15	Blue	Yellow	Red	Green

Table 1. Learning Centers in Ms. O'Brien Classroom

IV.Learning Contracts

Teacher and student make a written agreement (see Figure 13) about a task to be completed. The agreement includes the learning goals and criteria for evaluation in student-friendly language, the format of the work, how it will be assessed, and organizational details such as the deadline and agreement.

Figure 13. Example of Learning Contract

V.RAFT

RAFT (see Figure 14) is an acronym for Role, Audience, Format, and Topic. These headings are written across the top of a grid and a number of options are created. Students choose an option or the teacher selects it for them. Students read across the columns to learn the role they are going to assume, the audience they will address, the format in which they will do the work, and the topic they are going to explore. For example, a student might assume the role of a historical figure addressing an audience of a particular era. The student might develop a speech or an essay on a topic relevant to that point in history.

RAFT can be created to address students' interests (especially in the "topic" and "role" columns), students' learning preferences (in the "format" column) and various readiness by altering the difficulty of some of the rows or creating separate RAFT assignments for different learners.

RAFT Activities

	Role	Audience	Format	Topic
Language Arts & Literature	Semicolon	Middle Schoolers	Diary entry	I Wish You Really Knew Where I Belong
	Huck Finn	Tom Sawyer	Note hidden in a tree knot	A Few Things You Should Know
	Rain Drop	Future Droplets	Advice Column	The Beauty of Cycles
Science	Lung	Cigarettes	Public Service Announcement	What you do to me!
	Reporter	Public	Obituary	Hitler is Dead
	Water	The Sun	A love letter	I think you are hot
History	Thomas Jefferson	Current Residents of Virginia	Full page Newspaper Ad	If I Could Talk to You Now
	Fractions	Whole Numbers	Petition	To Be Considered A Part of the Family
Math	A word problem	Students in your class	Set of Directions	How to Get to Know Me

Figure 14. Example of RAFT Activities

VI.Tiering

When we tier an assignment, we are creating more than one version of a task so that we can respond to students' varied levels of readiness. To create a tiered assignment, choose or we should create an activity that is what we would normally provide for our grade level, then create additional versions of that activity to meet the readiness needs we identified through pre-assessment. Remember that all tasks needed to be interesting and challenging for all learners. Tiered assignments are often referred to as parallel tasks— particularly in mathematics (see Figure 15).

Lesson Topic	Green-level tasks (foundationzl)	Blue-level tasks (intermediate)	Black-level tasks (advance)
Problem solving with linear equations	The difference in the ages of two people is 8 years. The older person is 3 times the age of he younger. How old is each?	The length of a rectangle is 3 less than half the width. If the perimeter is 18, find the length and width.	When asked for the time, a problem-posing professor said, "if from the present time, you subtract one-sixth of the time from now until noon tomorrow, you get exactly one-third of the time from noon until now." What time was it?

Figure 15. Example of Tiered Assignments

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Conclusion

As I mentioned in the definition of Differentiated Instruction at the very beginning, DI does not mean confining some students to low level, repetitive tasks while others work on higher thinking; however, it means interesting tasks based on student learning preferences, interests and levels of readiness. I saw this in Ms. O'Brien's classroom, where she was not only pulling out the lower-achievers, but also respecting the learning of higher-achievers with DI.

DI does not mean unlimited freedom for students to choose whatever they would like to do on any day; however, it means reasonable choices that meet needs of students. I saw every group doing their task respectfully in the classroom observed during this training trip.

DI does not mean a chaotic classroom environment; however, it means routines, procedures, and classroom agreements are in order. I saw students were doing their assignments spontaneously and getting involved without seeing a chaotic classroom environment.

I have learned a lot from this delegation trip by observing how teachers applied DI theory into practice which is like this quotation, "When teachers recognize diversity in their students, in terms of how and what they identify with and how they learn, and when this recognition is reflected in how teachers teach, students are free to discover new and creative ways to solve problems, achieve success, and become lifelong learners."(Ferguson et al., 2005)

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