

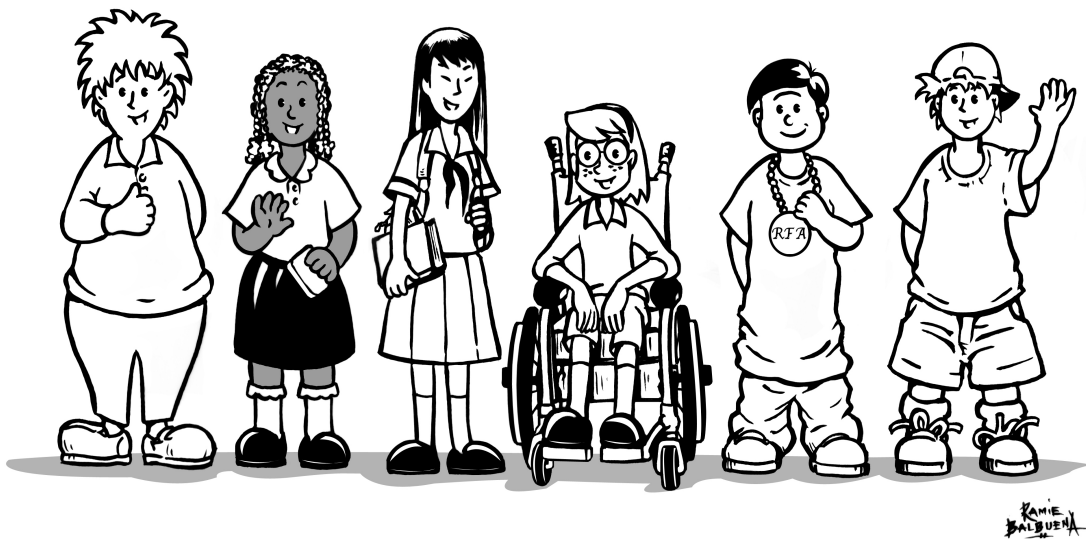
Robin Fogarty & Associates

Present

Differentiated Instruction: Learners & Lessons

at

*NESA Fall Training Institute November 4-5 2016
Abu Dhabi*



Different Brains! Different Learners!

**Robin Fogarty & Associates
Chicago USA**



Robin-Fogarty-Associates



RFATeachPD



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Apply
Collaboration,
Communication,
Innovation,
Enterprise,
Techno-Savvy,
Synergy, Entrepreneurship

Process
Compare, Contrast, Classify,
Sort, Distinguish, Infer,
Explain (Why)
Sequence, Analyze,
Synthesize, Analogies,
Reason

Gather
Complete, Define,
Describe, Scan, List,
Match, Name, Observe,
Recite, Select, Identify,
Count

The Three Story Intellect

There are one-story intellects,
two-story intellects, and
three-story intellects
with skylights.

All fact collectors who have
no aim beyond their facts
are one-story minds.

Two-story minds compare,
reason, generalize,
using the labor of
fact collectors
as their own.

Three-story minds idealize,
imagine, predict,
their best illumination
comes from above,
through the
skylight.

Oliver Wendall Holmes
Adapted from the poem, At the Breakfast Table

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Differentiated Instruction

Research Part I: Lessons

THREE-TIERED LESSON

Concrete Level of Instruction

Hands-on-DOING

Use Lesson Tier I to make the learning close to the real experience. **Concrete**

Let students manipulate something in a visceral experience (The real deal)

Example:

Students play with magnets, touch them and experience the attracting or repelling;
field trip to museum (experiential)

Representational Level of Instruction

Visual, Auditory-VIEWING, (HEARING)

Use Lesson Tier II to represent the target skill or concept with drawings, diagrams, visuals. Let students represent the meaning in symbolic ways. **Representational**

Example:

Computer programs that show the concept or skill or provide interaction.

Abstract Level of Instruction

Language - CONSTRUING MEANING

Use Lesson Tier III to involve language in the abstract. Any activity or learning experience that involves language is abstract. Reading, writing, speaking, listening involve sophisticated language skills. **Abstract**

Example:

Writing an essay, report or research paper.

Differentiated Instruction

Research Part II: Learners

Strategies of Diverse Learners

Developing Learner

Identify and Make up Gaps
Direct Instruction
Structured Activities
Concrete Activities Fewer Steps
Close to Experience Simpler
Reading Deliberate Pace

English Learner

Cooperative Buddy
Translation Partner
Visuals; Graphic Organizers Pictures, Drawings
Hands-on; Bodily Kinesthetic
Auditory Cues; Tapes Videotapes; DVDs
Internet Activities / Self-correcting

Advanced Learner

Skip Practice of Mastered Material
Complex Activity
Open-ended Activity
Abstract Activity
Multifaceted Activity
Advanced Reading
Activity with Depth
Compact Information

Special Needs Learner

Individual Education Plan Classroom Aide
Peer Tutor; Cooperative Partner
Specialists, Resource Teachers
Software Feedback Tools Classroom Environment \ Parent Involvement
Facilities Modifications

Getting Started / Moving Along

Lo-Prep Differentiation

Choice of Materials Homework
Options Flexible Seating
Jigsaw
Questioning Strategies
Cooperative Learning Product
Options Assessment Options

High Prep Differentiation

Stations
Centers
Choice boards Entry points Tiered activities Learning contracts
Simulations Rubrics

FAQ - Differentiation

1. How do you change content when you can't change the standards?
2. How do you change the assignment... keep dignity for the student?
3. How do you assess various assignments for the high school?
4. How do you prepare all students for the test at their level?
5. How do you do all this active engaged learning and keep pace?
6. How do you do cooperative learning in open concept classrooms?
7. How do you write a lesson for every kid?
8. How do you differentiate for 120-150 students in HS setting?
9. How do teachers co-teach effectively with no time to plan together?
10. How do teachers differentiate / address standards at the same time?

Three-Tier LESSONS for Diverse LEARNERS

Appropriate for Readers' Theater and/or Cooperative Tear-Share Reading

Doing, Viewing, Construing Meaning

Teachers today need a vast repertoire of teaching, learning strategies to meet the diverse needs of their students. This session is designed for professional collaboration, as teachers learn about the link between LEARNERS and LESSONS. There is no mystery to differentiated instruction.

Different Brains, Different Learners!

The brain science tells the story of how every brain is wired differently and has an entirely unique schema. That vast diversity in student talents and needs dictates a vast repertoire of teaching strategies. 3-Tiered Lessons that design concrete, representational, abstract elements in a lesson provide that multimodal differentiated approach. Students learn as they: Do, View, Construe Meaning.

Concrete, Representational, Abstract.

Practice developing a *concrete*, hands-on facet to the lesson: Have students *do* something. Add a representational element to *display and show* student ideas for viewing-live or digitally. Finally, incorporate the *abstract* element of language skills for students as *construe meaning* with a deeper understanding of the text through speaking and listening strategies as well as reading and writing strategies across the disciplines.

Primary-Grades K, 1, 2

The 3-tiers of the lesson become the beginning of centers as part of small group learning within whole class instruction. Centers or the beginning of centered work, enhance the whole group instructional model with options and choices as the lesson evolve.

Intermediate Grades 3,4,5

The 3-Tier Lessons provides rich, robust lessons over several days, that tap into the talents and needs of the students. As the teachers find various ways to introduce, to practice and to master the learning of a concept or skill, this lesson design serves them well.


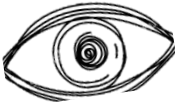

Middle / High Grades- 6-10

The 3-tier model can be used quite successfully as 3 temporary stations within a lesson, as students rotate through the various stations and assignments. 1) One involves constructing 2) Two is focused on appropriate media or visual organizers and 3) provides comprehensive reading and writing assignments and assessments.

Discussion Questions:


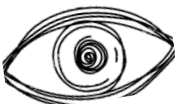

1. Which comes first? Lessons or Learners? Why?
2. Give common examples of Doing and Construing Meaning.
3. Rank frequency of:
 ___ Concrete ___ Representational ___ Abstract lessons
4. Demystify the mystery of differentiated Instruction.

Teacher Key Differentiated Lesson: 3-Tier Template

Grade:	Examples: K-12	Subject:	Examples: Math Social Studies, Science
Topic:	Concept/Skill	Standard	What standards are targeted in this lesson – abbreviations are OK (Power Standards with clue words or word)
Objective:	What you want the students to know at the end of this lesson, the “Take Away”		
Big Idea:	Generalizing the Objective; enduring learning		
Essential Question:	An open-end question, not academic, can be asked and answered multiple times, could apply to many subject areas and many grade levels, sometimes called a Driving Question		
CONCRETE “DO”	<i>Examples: Role Play, Simulation, Manipulative, Labs, Field Trips, Models Performance, Constructions, 3-D Printer, CadCam Software</i>		
			
REPRESENTATIONAL “VIEW”	<i>Examples: Maps, Charts, Timeline, Pictures, Video, Computer/Virtual, Films, Drawing/Illustration, Wordle, Poll Everywhere</i>		
			
ABSTRACT “CONSTRUE MEANING”	<i>Examples: Words, Languages, Reading, Writing, Speaking, Listening, Text, Books, Articles, Blogs, Dragon Dictation, Translation Software, Spritz</i>		
			

- 1 – In your own words:**
- 2 – Compare:**
- 3 – Find an example:**

Example Differentiated 3-Tier Lesson


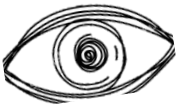

Grade:	Middle 6,7,8	Subject:	Language Arts
Topic:	Figures of Speech	Standard	ELA Literary Elements, devices
Objective:	Literary Devices; Figures of Speech-Paradox, Ambiguity, Irony		
Big Idea:	Contradiction; Things Are Not Always What They Seem		
Essential Question:	Do literary devices distract or enhance the reading?		
CONCRETE "DO"	<p>Examples: Role Play, Simulation, Manipulative, Labs, Field Trips, Models Performance, Constructions, 3-D Printer, CadCam Software</p> <p>2. Mobius Strips with paradoxical statement "The beginning is the end. The end is the beginning."</p>		
			
REPRESENTATIONAL "VIEW"	<p>Examples: Maps, Charts, Timeline, Pictures, Video, Computer/Virtual, Films, Drawing/Illustration, Wordle, Poll Everywhere</p> <p>Show Optical Illusions Old/Young Lady, Vase/Face (Examples of paradox and ambiguity) Tessellations, Picture in a Picture Close up of flower seed pad and whole flower</p>		
			
ABSTRACT "CONSTRUE MEANING"	<p>Examples: Words, Languages, Reading, Writing, Speaking, Listening, Text, Books, Articles, Blogs, Dragon Dictation, Translation Software, Spritz</p> <p>Paradoxical statement; paradoxical situation, "What Do You Call A Couple Of Physicians Sitting On A Bench?" Ducks, Deer; Old Woman, Young Woman</p>		
			

Explain in Your Own Words: Paradox is confusing. It is one thing and then it isn't, it's another.

Compare with an Analogy: Paradox is like the kaleidoscope. Both keep changing.

Find One Clear Example in the Reading: Book? Chapter? Page? Para? Line? In *Miss Nelson is Missing*
The main character is a paradox because she is nice and she is mean . . . the teacher disguises herself as a witch.

Practice: Differentiated Lesson 3-Tier Template

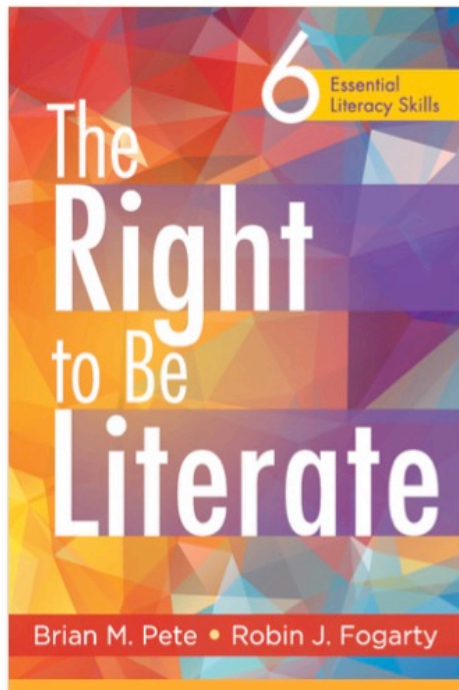
Grade:		Subject:	
Topic:		Standard	
Objective:			
Big Idea:			
Essential Question:			
CONCRETE "DO"	<i>Examples: Role Play, Simulation, Manipulative, Labs, Field Trips, Models Performance, Constructions, 3-D Printer, CadCam Software</i>		
			
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ABSTRACT "CONSTRUE MEANING"	<i>Examples: Words, Languages, Reading, Writing, Speaking, Listening, Text, Books, Articles, Blogs, Dragon Dictation, Translation Software, Spritz</i>		
			

1 – In your own words:

2 – Compare:

3 – Find an example in your reading/writing:

Celebrating 2017 Teachers' Choice Award!



2017 Teachers Choice Award

Read Fast - *Read Is A Verb*
Write Well - *Write Everyday*
Speak True - *Say What You Mean*
View Often - *Picture It!*
Represent Always - *Show, Don't Tell*
Listen Hard - *Hear What Is Said*

The Right to Be Literate

6 Essential Literacy Skills: 21st Century Learners

Believing that every child has the right to be literate, realized not just in what we say, but by what we do, is the driving force for this professional learning opportunity. If kids can't, don't or won't read, school can become a nightmare not a vision of the future. The literacy game stays the same and at the same time, it has changed. The sameness is in skillfulness in reading, writing, speaking and listening. The difference is in the veil of technology, digital literacy and media literacy that enhance these standby skills. There is an enormous advancement in the mission and the management of how we teach literacy in the "touch screen world". Learn how to integrate six, active, engaging literacy strategies with the rigorous standards adopted by the states. Capture the concept of literacy and learning with these action-word phrases that highlight the Right To Be Literate passage for each and every student.

Objective and Outcomes:

- Learn Strategies that Ensure Students: Read Fast, Write Well
- Practice Strategies that Help Students: Speak True, Listen Hard
- Embrace Digital Literacy for Media Literacy: View Often, Represent Always

Classic: 7-Step Differentiated Lesson Guide

Grade:	Level	Subject:	Disciplines
Topic:	Unit or Lesson	Standard	Prime and Secondary Standards
Objective:			
Big Idea:			
Essential Question:			
Hook: Motivates			
Input: Teachers Does			
Interaction: Kids Do			
Product: Evidence			
Assessment: Judgment			
Reflection: Life-long learning			

Teacher Key: 7 Step Classic Differentiated Lesson Guide

Grade:	Level	Subject:	Disciplines
Topic:	Unit or Lesson	Standard	Prime and Secondary Standards
Objective:	What kids will be able to know and do?		
Big Idea:	Universal concept(s); worldly ideas, philosophical underpinnings, larger perspectives		
Essential Question:	Open-ended, universal, unanswerable questions that invokes thinking and inquiry; no one response; provocative		
Hook: Motivates	Use surprise, unexpected, thought –provoking, exciting, attention-grabber; get kids interested; invite them to question, query, want to know.		
Input: What Teacher Does	Change something to make learning accessible to kids...not louder and slower, but using your vast repertoire of instructional strategies.		
Interaction: What Kids Do	Get kids involved, invested in the team-work or project; get them to own the learning in a self-directed way.		
Product: Evidence of Learning	Encourage and challenge students with challenge and choice and options for providing evidence of learning; project-based, performances or products.		
Assessment: Judgment	Use traditional paper and pencil/computer-based; Student Portfolios-electronic, real; web-based class portfolios, performance or product with scoring rubric		
Reflection: Life-long Learning	Do metacognitive thinking about what and how and why task students just did-written or oral		

Differentiated Lesson: 3-Tier Template

Grade:		Subject:	
Topic:		Standard	
Objective:			
Big Idea:			
ESSENTIAL QUESTION:			
HOOK <i>Motivates</i>	Basic: Concrete - Representational - Abstract -		
INPUT <i>What Teachers Does-Information, Content, Context</i>	Basic: Concrete - Representational - Abstract -		
INTERACTION <i>Kids Do-Activity, the Task Process</i>	Basic: Concrete - Representational - Abstract -		
PRODUCT <i>Evidence of Learning</i>	Basic: Concrete - Representational - Abstract -		
ASSESSMENT <i>Judgment - Quality</i>	Basic: Concrete - Representational - Abstract -		
REFLECTION <i>Life-long Learning</i>	Basic: Concrete - Representational - Abstract -		

3-Tier Elem Challenge Differentiated Lesson

Grade:	Kindergarten	Subject:	Science
Topic:	Magnet	Standard:	K-PS2-1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.
Objective:	Learn how to find out about new things by doing something and learning words		
Big Idea:	Investigation; Trial and Error		
Essential Question:	How Do We Know What We Know?		
Hook: Motivates	<p>Basic: Stick your sticky note up with a picture of much you like science.</p> <p>Concrete: Pairs face each other: Hold Hands. Push / Pull (3X). Examples?</p> <p>Representational: Draw</p> <p>Abstract: Turn &Talk-What is a magnet? Describe.</p>		
Input: Teachers Does	<p>Basic: Science means asking about how and why things work.</p> <p>Vocabulary: <i>stick, sticky, attract, repel, magnet, force, motion, together, apart</i></p> <p>Concrete: Pass magnet with objects around that attract</p> <p>Representational: Show on number line-How many liked the lesson</p> <p>Abstract: Write the words on large word cards.</p>		
Interaction: Kids Do	<p>Basic: Students try an assortment of objects with the magnet and sort the ones that stick and the ones that don't stick</p> <p>Concrete: Act our the vocabulary word you draw from pile</p> <p>Representational: Draw something that shows a force</p> <p>Abstract: In new pairs play fish with the vocabulary cards</p>		
Product: Evidence	<p>Basic: Show drawings of what "sticks and what does not stick". Put X on object. Talk in pairs about why some objects stick and some do not stick.</p> <p>Concrete: Find 3 other things that stick and put on your paper</p> <p>Representational: Draw 2 magnets; show arrows for sticking magnets</p> <p>Abstract: Choral read the chart about magnets with me</p>		
Assessment: Judgment	<p>Basic: Say: Self-Assess - I did _____ because _____</p> <p>Concrete: Use one hand-Great- Five Fingers up, Good 4 up, OK-3 up</p> <p>Representational: On a scale of 1-5, mark how well you did</p> <p>Abstract: Give yourself an A B or C for your work today.</p>		
Reflection: Life-long Learning	<p>Basic: What was easy to do? What was hard?</p> <p>Concrete: one hand up if easy; 2 hands up if hard</p> <p>Representational: Smiley if easy; Frown if Hard</p> <p>Abstract: write: Easy-Write Yes on screen; No, write hard</p>		

Middle Level Challenge Example-3-Tier Differentiated

Grade:	Middle	Subject:	Biology-Human Body Systems
Topic:	Skeletal System	Standard	Biology – The Human Body
Objective:	Knowledge of Human Body Skeletal System		
Big Idea:	Systems, Connections, Structures		
ESSENTIAL QUESTION:	How does the skeletal system work and what do we do when it doesn't.		
Hook:	Basic: Teach Song Concrete: Memory Pegs Representational: Picture of Human Skeleton Abstract: Song- DRY BONES “Them bone’s connected to the ____		
Input:	Basic: Text, Chapter, Section Concrete: Skeleton Model from Lab on Display Representational: Diagram of Human Skeleton in Science book; Video Abstract: Text? Chapter? Section? Selections from Tex		
Interaction:	Basic: Do attribute web of skeletal system Concrete: Build Model of Skeleton with movable joints Representational: Complete an attribute web on the skeletal system Abstract: Write about Skeletal System using words from attribute web.		
Product:	Basic: Created jointed skeleton of human body Concrete: Movable Model to display on BB Representational: Science video about human body systems Abstract: Create a “jointed” skeleton of the human body		
Assessment:	Basic: Select 3 criteria for a scoring rubric Concrete: Identify parts of skeleton system and determine most fragile. Representational: Venn Diagram C/C Skeletal System / School System Abstract: Select 3 Criteria for the Scoring Rubric on the skeleton assignment		
Reflection:	Basic: Rate final product on a scale of 1-10 Concrete: Use clay or silly putty to make an accurate model for kindergarten Representational: Self-assessment of work in unit- A, B, C, D Justify Abstract: Rate Skeleton-final product /process, on a scale of 1-10. Why?		

At-a-Glance: Differentiated Lesson Guide

Grade:	11th	Subject:	Consumer Math
Topic:	Mental Math Estimation	Standard	Target Standard: Mental Math/Estimation
Objective:	Mental Math Skills/Computational Estimation by Rounding Off		
Big Idea:	Estimate, guesstimate provide insight to the final picture		
ESSENTIAL QUESTION:	Estimation: the Good, the Bad, the Ugly		
Hook: <i>Motivates</i>	<p>Basic Lesson: Use “Quick and Dirty” estimation exercises</p> <p>Concrete - Guess weight of suitcase for 50 lbs (? kg) airline limit</p> <p>Representational - create excel sheet of estimated / actual costs</p> <p>Abstract - Write about virtues of mental math</p>		
Input: <i>Teachers Does</i>	<p>Basic Lesson: estimating strategies-round off, tens, visualize</p> <p>Concrete - Estimate cost of 3 flower deliveries</p> <p>Representational - use graph estimated weight gain/loss for week</p> <p>Abstract - Weekly Shopping List with total estimated</p>		
Interaction: <i>Kids Do</i>	<p>Basic Lesson: Timed Relay Teams on Estimation Questions</p> <p>Concrete - Find the heaviest backpack using estimation skills</p> <p>Representational -</p> <p>https://www.youtube.com/watch?v=Z7pKRrdBY90</p> <p><small>Jun 20, 2016 - Uploaded by Joseph Case High School Media Channel Sequel to "Mental Math" Written, Shot, and Edited at Joseph Case High School (In 7 Days!) JCHS MEDIA</small></p> <p>Abstract Write jingle or song about the power of estimation</p>		
Product: <i>Evidence</i>	<p>Basic Lesson: Estimate payments for motorbike over 3 years, including down payment,</p> <p>Concrete - provide a fair booth for estimating weight</p> <p>Representational - Do scale drawing and estimate</p> <p>Abstract: paragraph extolling the virtues of estimation</p>		
Assessment: <i>Judgment</i>	<p>Basic Lesson: End of chapter test-P/S with estimation</p> <p>Concrete - Role Play Estimation Exercise that went bad</p> <p>Representational - Do a comic depicting estimating height of tree</p> <p>Abstract - Critique pros/cons of mental math</p>		
Reflection: <i>Life-long Learning</i>	<p>Basic Lesson: Write a reflection on mental math</p> <p>Concrete - Human graph on Estimation</p> <p>Representational - With Google map estimate commute</p> <p>Abstract - 2s Write 2 scenarios estimation scenarios-</p>		