Differentiating Instruction with Technology

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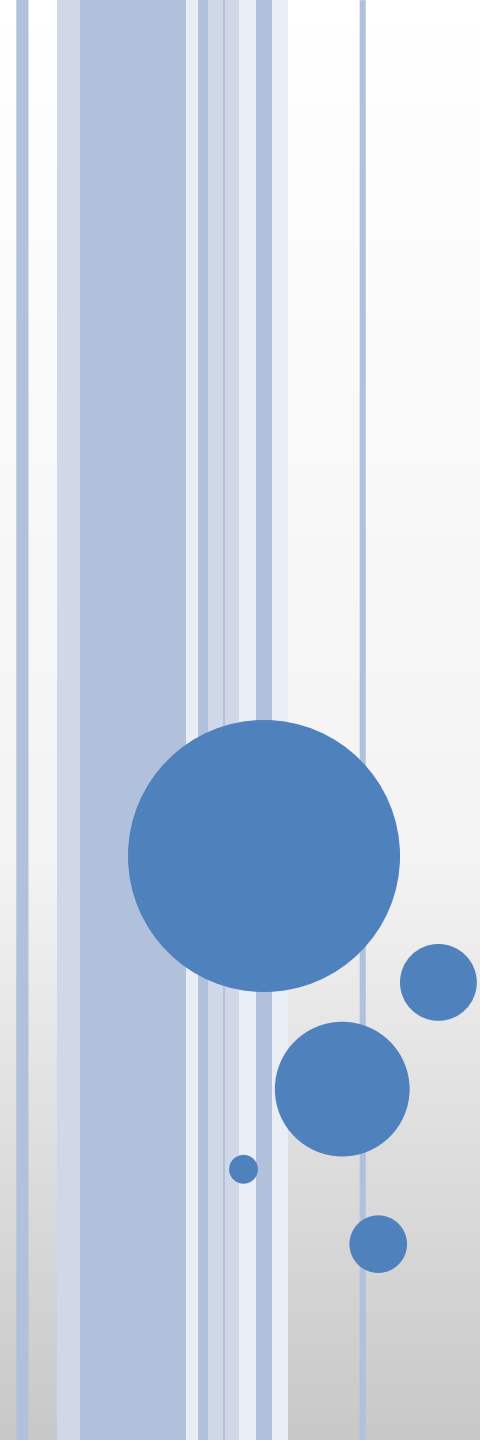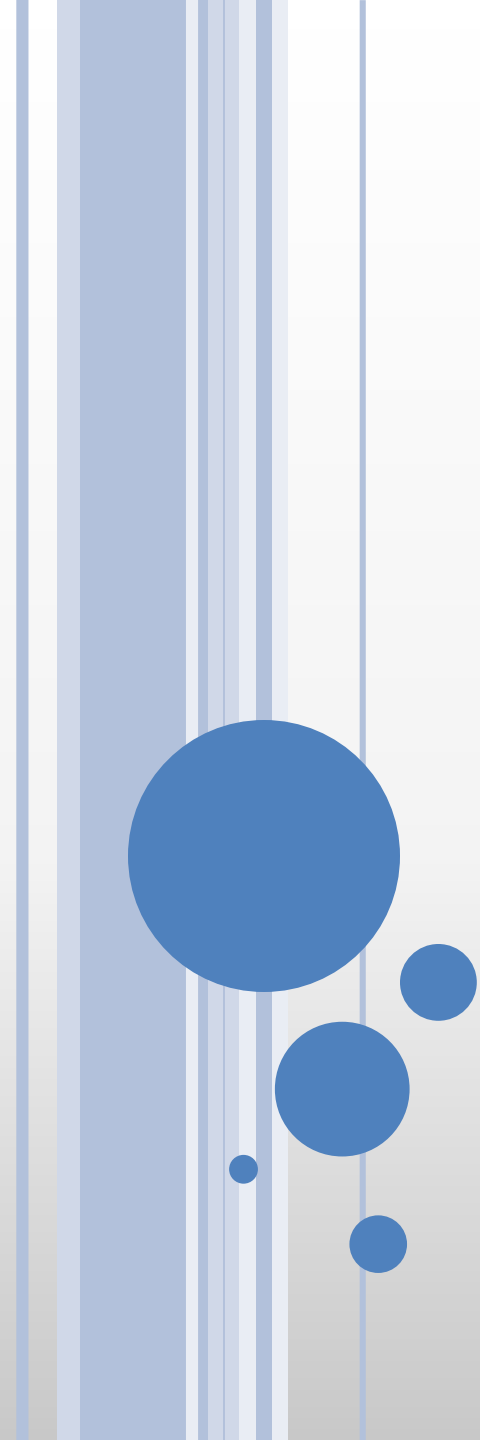# DIFFERENTIATED INSTRUCTION
WITH TECHNOLOGY

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"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 (teacher educator)

WHAT IS DIFFERENTIATION???

- Differentiation
  - Modifies content, process, product and learning environment based on assessed needs
- Scaffolding
  - Breaking up a learning experience, concept or skill into discrete parts, then giving students the assistance needed to learn the part
- Differentiation and Scaffolding BOTH
  - Move student learning and understanding from where it is to where it should be
  - Blended in a classroom to the point that the two are indistinguishable
  - Essential to learning and engagement

individualized instruction

just small group work

Differentiation is NOT…

making things comfortable/easier for students

changing up your style

~Bentz

Differentiation IS...

a teacher who collects and uses assessment data

a teacher who recognizes students need more than one way to experience learning

a teacher who is proactive rather than reactive

balancing effort with SUCCESS!

~Bentz

TRADITIONAL   VS.   DIFFERENTIATED

Traditional	Differentiated
• Student differences ignored or acted upon when problematic	• Student differences studied as a basis for planning
• Assessment only at the end of learning to see "who got it"	• Assessment on-going and diagnostic to be responsive to learning needs
• One definition of excellence exists (100 percent achievement, on objectives tested once)	• Excellence defined in large measure by individual growth for a starting point
• Student interest infrequently tapped	• Students frequently make interest-based learning choices
• Whole-class instruction dominates	• Many instructional arrangements (groupings, partner work, centers)

~teachingasleadership.org

TRADITIONAL VS. DIFFERENTIATED

Traditional	Differentiated
o Coverage of texts and curriculum drives instruction	o Curriculum/standards still drives instruction
o Single option assignments	o Multi-option assignments
o A single text prevails	o Multiple materials provided (visuals, manipulatives)
o Time is relatively inflexible	o Time is flexible, based on student need
o Students assessed in one way	o Students assessed in multiple ways

~teachingasleadership.org

Differentiate Content

- What the teacher plans to teach

- What the students need to learn

- Presenting material to students in more than one way everyday!
  - Auditory, Visual, Kinesthetic, Tactile, etc.

- Determined through pre-assessment and formative assessment

- Take the time to be thorough!

Content Methods

- Textbooks
- Speakers
- Fieldtrips (real or virtual)
- Videos
- Demonstrations
- Lectures
- Internet sources
- Paper resources (newspaper, magazines, books)
- Power point
- Podcasts
- Webquests

Differentiated

- Varying reading level of materials
- Putting text on CD/Tape/Ipod
- Grouping/peer buddies
- Multi-level questioning
- Real world materials/examples
- Multi-level computer programs
- Meeting with small group to re-teach skill or extend skill
- Modeling
- Vocabulary instruction based on readiness level
- Use more than one method of presentation
- Graphic organizers
- Fill in blank notes

Technology resources for Content

- Multi-level Computer programs

  - www.IXL.com (math and LA k-12)
  - www.raz-kids.com (leveled e-books k-5)
  - www.mobymax.com (math, LA, Science k-8)
  - Getkahoot.com and Kahoot.it (learning games)
  - www.brightstorm.com (9-12 math, science, LA, test prep)
  - www.digitalhistory.uh.edu (6-12 Social Studies)
  - www.kahnacademy.org (k-12 multi subject)
  - Sketchpad Explorer App (1-10 math)

Differentiate Process

- Don't skip this step!

- How students will access information

- Activities the students engage in order to make sense of the content

- Tiered activities in which all learners work with the same information, understanding, and skills but proceed with different levels of support, challenge or complexity

- Can be teacher led, collaborating as a class, collaborating in pairs, homogenous or heterogeneous ability groups, or independent work

Process Methods

- Worksheets
- Graphic organizers
- Teacher led Discussion
- Teacher led practice
- Work at the board
- Vocabulary activities
- KWL
- Dipstick or Summarizing strategies
- Blooms Taxonomy

Differentiated

- Centers/stations
- Manipulatives
- Jigsaw
- Think, Pair, Share
- Labs
- Role play/simulations
- Web quests
- Journaling
- Cubing (can be process or product)
- Tiered practice problems
- Solve a mystery/problem scenario
- Heterogeneous or homogenous grouping
- Collaborate as a class, group, or pairs

TECHNOLOGY RESOURCES FOR PROCESS

- www.edutechalogy.org go to blog

- explorediffertiation.wikispaces.com

- Daretodifferentiate.wikispaces.com

- www.schrockguide.net

- www.learnnc.org

- www.doe.in.gov/highability/resources-and-publications go to Tiered Curriculum Project

- Padlet.com, Google drive, Bubbl.us, www.twiddla.com

Scaffolding is part of the Process

- Provides a safety net for students
- Happens before and during teaching
- Breaks learning into chunks, then provides structure or a tool with each chunk
  - Activating and previewing strategies
    - Investigate prior knowledge, making predictions, piquing interest, allow time to share personal experiences
  - Show and tell (show sample product, discuss rubric or criteria, what steps do they follow)
  - Think aloud – as you teach model thought processes
  - Quality Questioning - Pause, Ask, Pause, Review
  - Using chants, mnemonics, visual or verbal cues/reminders

Scaffolding through transitions

- PBIS can help
  - Posted behavioral expectations
  - Explicitly teaching and practicing transitions
  - Reinforce and reward!!
- Activating strategies
  - Hook interest and get brains engaged in what is coming next
  - Max Thompson strategies: KWL, word splash, word maps
  - Personal story, visual aide, brainstorming
  - Should be fun and require interaction
  - Can also include reviewing previously taught material in a fun way

Scaffolding through Transitions

- Good closing steps:

  - Have a predetermined plan for those who finish early, then better differentiate for them the next time
  - Find a stopping point and come together
  - Review academic and behavior positives
  - Allow time to share
  - Release and start getting set up for the next lesson

DIFFERENTIATE PRODUCT

- How the student will demonstrate what he/she has learned

- Special Education students can do all the things other student do, given time, a sample, and support!

Common products

- Create a poster
- Create a Powerpoint
- Design an article
- Worksheets , tests, quizzes(yawn)
- Speech
- Essay/Book report
- Build a model
- Teach another student
- Debate
- Demonstration

Differentiate

- Product Menu/Choice board (Tic Tac Toe)
- Cubing, Think Dots
- Write song/video/act it out
- Blog or Wiki
- Podcast
- Rubrics with varied levels
- Exit card
- Contracts and timelines
- Interest based investigations
- Movie or book trailer
- Incorporating learning styles into choices

TECHNOLOGY RESOURCES FOR PRODUCT

- www.readwritethink.org k-12 student interactives
- Differentiationdaily.com
- Pinterest
- Youtube playlists
- Screencastify
- Zoom
- Thinglink
- Piktochart

bit.ly/di4allonlinetools

DIFFERENTIATION PRO'S AND CON'S

- Pros
  - It is just more fun!!!
  - Research shows it works for gifted as well as students with more severe disabilities
  - Allows students to take responsibility for their own learning
  - Students are more engaged resulting in fewer discipline issues
- Cons
  - Requires more time put into planning and preparation
  - Limited professional development

"There is no one right way to create an effectively differentiated classroom; teachers craft responsive learning places in ways that are a good match for their teaching styles, as well as for their learners needs."

~Carol Tomlinson

PROACTIVE = ANTECEDENT MODIFICATION

- Differentiation can be part of the IEP.
  - Instructional accommodations
    - Content, Process, Product, and Environment
  - Antecedent modification
    - Environmental
    - Social Supports
    - Task Oriented
    - Teacher Behavior

ENVIRONMENTAL MODIFICATIONS

- Lighting- dim/bright, overhead/lamps, natural, filters

- Sounds- door open/shut, background music, white noise, headphones

- Alignment- chair height, slant boards

- Zoning- seating, specific areas with specific purpose (desks/board, floor space, table, computer area, project area), location of staff

- Provide tools- visual cues for rules/steps/boundaries, timers visual/auditory, fidgets, soothing space

SOCIAL MODIFICATIONS

- What proactive strategies can you use to help students be socially appropriate in class, with peers, and adults?
  - Circle time/morning meeting or check in
  - Explicit social skills instruction, Role play
  - Visual cues/reminders
  - Behavior specific praise
  - Behavioral momentum
  - Pair with a role model
  - Self-monitoring check list and self-evaluation
  - Set up volunteer/positive relationship opportunities
  - Practice specific skills and then test run
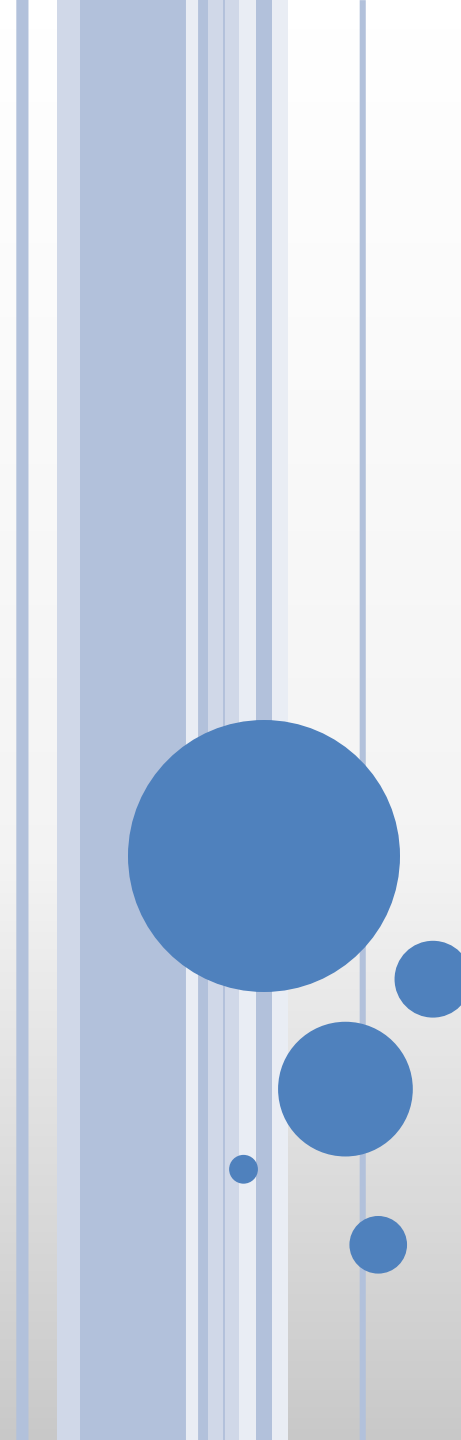
TASK MODIFICATIONS

- High interest or preferred materials
- Incorporate choices
- Writing modifications
- Manipulatives, calculator
- Break task down into portions
- Shorten length or reduce complexity of task
- Schedule work/break times
- Extended time, multiple attempts
- Provide a completion schedule or map for difficult tasks
- Alternate task or lowered/advanced level
- Always be willing to negotiate!! What is most important?

Teacher Behavior Modifications

- Proximity
- Verbal cues for upcoming activities, reminders, and praise
- Incentive plans/individual behavior contracts
- Allow students time as soon as frustration is detected
- Be knowledgeable in coping strategies, offer and guide students in using them
- All adults in room engaged
- Reduce down time
- Incorporate sensory activities for all

"Teachers discover that they need to develop and maintain personal relationships with the students they teach -- because for most students, meaningful interaction with a teacher is a precursor to academic learning."

~Huberman

QUESTIONS???

- Differentiation and Scaffolding

- Differentiation in the IEP
  - Proactive/Antecedent mods
  - Smooth Transitions

- Web Resources
  - [Web and App Resource List](#)
  - [Product Menu](#)
  - Pinterest