EFFECTIVE TIER 1 INSTRUCTIONAL PRACTICES

Irene H. Zytka, Ed.D
SERC Consultant
Tier 1

Powerful classroom instruction begins with the adoption and use of an evidence-based curriculum, but effective teachers do not simply teach such a program page-by-page in the same way for all students. Rather, they differentiate instruction, providing instruction designed to meet the specific needs of students in the class.”

RTI Action Network
Focus areas for a strong core in Tier 1...

• Activation prior knowledge
• Checking for Understanding
• Improving student engagement through flexible grouping
• Differentiated Instruction
Where do the focus areas fit in the SRBI framework?

John Hintze, Ph.D. (2009)
1. What should students know and be able to Do (objective)?

2. How does this lesson objective fit into the “big picture” of instruction this year? (Introduction of skill, review of skill, introduction of skill at more complex level)

3. How will I, and they, know when they are successful?

4. What learning experiences will facilitate their success?

5. What resources will I Use?

6. Based on data, how do I refine the learning experiences?
## Task Analysis

<table>
<thead>
<tr>
<th>Task Analysis</th>
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<tbody>
<tr>
<td>Given a task to be accomplished, how do we get there? What kinds of lessons and practices are needed if key performances are to be mastered?</td>
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</table>

1. Is the task valid and worthwhile?
2. What are the skills, knowledge, and understanding that students need to have in order to be successful at moving toward mastery of the standard and completion of the task?
3. Which students have mastered which parts of which skills?
4. Design differentiated instruction which address the various levels of student understanding.
Activating Prior Knowledge:

Why is it important?

Research indicates that “….what students already know about the content is one of the strongest indicators of how well they will learn new information;” therefore, it is critical that teachers begin to spend more time with focused instruction to build background knowledge.

How do we acquire background knowledge?

It is dependent on:

1. Life experiences
2. Ability to process and store information
3. The quantity and variety of our academically enriching experiences
Important Components of APK

- Activate **Relevant** Prior Knowledge
- Minimize **Irrelevant** Prior Knowledge
- Compensate for **Missing** Prior Knowledge
4 Questions to ask…

1. Does my lesson lend itself to an activator?
   - **Best** - lessons that involve concepts
   - **Not as useful** - lessons that involve procedural skills

2. Do your students have the prior knowledge they need?

3. Are there any distracting details in your lesson that might activate irrelevant prior knowledge?

4. What is the most appropriate activator given the type of background knowledge students need and how you want them to use it in an upcoming lesson?
Strategy....

ABC Brainstorm

Students think of a word or phrase associated with a new topic, matched to the letter of the alphabet.
ABC BRAINSTORM

<table>
<thead>
<tr>
<th>A-B</th>
<th>C-D</th>
<th>E-F</th>
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<tbody>
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<td>G-H</td>
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<td>M-N</td>
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<td>Q-R-S</td>
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<tr>
<td>T-U</td>
<td>V-W</td>
<td>X-Y-Z</td>
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</tbody>
</table>
Strategy….Exclusion Brainstorming

(Blachowicz, 1986; Tompkins, 2004; McBride, 2005)

• Alternative to pre-assessment of known words/vocabulary
• Allows students the opportunity to discuss words as they relate to a specific topic and identify words that might not belong
• Let’s give it a try!
What words might *not* be included in an article about bullying?

<table>
<thead>
<tr>
<th>School</th>
<th>Mechanical</th>
</tr>
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<tbody>
<tr>
<td>Threats</td>
<td>Teasing</td>
</tr>
<tr>
<td>Cyber Stalking</td>
<td>Illegal</td>
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<tr>
<td>Diseases</td>
<td>Harassment</td>
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<tr>
<td>Angry</td>
<td>Hurtful</td>
</tr>
<tr>
<td>Ignore</td>
<td>Relational</td>
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</tbody>
</table>
Strategy….3-2-1 Bridge
A strategy for activating prior knowledge and making connections

Your Initial responses to the topic
3 Thoughts
2 Questions
1 Analogy

Your new responses to the topic
3 Thoughts
2 Questions
1 Analogy

Bridge:
Explain how your new responses connect to your initial responses?

Visible Thinking/Harvard Project Zero
Examples from the field....
Activating Prior Knowledge

- Knowledge Rating Scale
- List-Group-Label
- Concept Sort
Why check for understanding?

- Students bring in background knowledge that influences how they understand the materials you share and the lessons or learning opportunities teachers provide.
- It identifies and confronts misconceptions that interfere with learning.
- Provides students with a model of good study skills.
- A systematic approach to formative assessment
Assessment is derived from “assidere” which means “to sit with or beside.” It is something we do with and for a student, not something we do to them. - Green
# Comparison of Formative and Summative Assessments

<table>
<thead>
<tr>
<th></th>
<th>Formative Assessments</th>
<th>Summative Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>To improve instruction and provide student feedback</td>
<td>To measure student competency</td>
</tr>
<tr>
<td><strong>When administered</strong></td>
<td>Ongoing throughout unit</td>
<td>End of unit or course</td>
</tr>
<tr>
<td><strong>How students use results</strong></td>
<td>To self-monitor understanding</td>
<td>To gauge their progress toward course or grade-level goals and benchmarks</td>
</tr>
<tr>
<td><strong>How teachers use results</strong></td>
<td>To check for understanding</td>
<td>For grades,</td>
</tr>
</tbody>
</table>
How can teachers effectively increase students’ understanding?

- By using different techniques of **oral language**
  - Accountable talk
  - Value lineups
  - Retellings
  - Think-pair-share
  - Misconception analysis
  - Whip around

- By using different types of **questioning techniques**
  - Response cards
  - Hand signals
  - Electronic Response Systems
  - ReQuest
  - Socratic seminar

- By using a variety of **writing assessments**
  - Interactive writing
  - Read-write-pair-share
  - Summary writing

- By using **formative/summative assessments**
  - Multiple choice
  - Short answer
  - True or False
  - Essay
  - Exit Tickets

http://www.laalliance.org/
After I present the Power point and have given students the information about the topic, I will have them do a **WHIP AROUND**

Before students begin their group work, I will ask questions and students will hold up their **RESPONSE CARDS**

When students are finished with their group work, I will have them **WRITE A SUMMARY** of what they learned. Students will share their summary in a pair-share.

Before students exit the class, they will answer 5 **MULTIPLE CHOICE** questions.
5 Minute Strategies

These are quick (5-minutes or less) daily strategies which can be used any time during a lesson to help the teacher (and students) check for understanding.

In addition to checking for understanding, these strategies are a great way to provide closure to lessons. Again, if students feel that the teacher is checking for understanding every day, they will be more concerned about their learning.
Connect to Today

Think about how what we’ve been studying might be connected to things that are going on today.

EX: Migrations have occurred at various times in history. Today, immigrants from Mexico is a controversial topic.
It Never Happened

- Pretend that ______________ had never happened or ______________ had never been born. How would things be different?
- Discuss this with your partner

EX: What if the bullet of John Wilkes Booth had been deflect on the night of April 14, 1865?

D.C. Everest Social Studies D.C. Everest Area Schools Weston, WI 54476
Concept Mapping

Presents the relationships among a set of connected concepts and ideas. Student is able to reflect on what they know and don’t know thereby allowing the teacher to differentiate further instruction. Can be used with individuals, pairs or groups.
Example of a Concept Map

Choose a specific concept, topic (article, reading…)

Select a few related key terms

Draw arrows between them + add a phrase that links terms

Add cross-links

From: Center for Teaching and Learning
Another example of a Concept Map about concept mapping

A concept map can be used to organize information and contains two important components: vocabulary and ideas.
- Vocabulary helps to integrate new words into prior knowledge.
- Ideas show relationships between the ideas.

One component is vocabulary, and the other is ideas.
- Vocabulary: which
- Ideas: that

Vocabulary
- Helps to integrate new words into prior knowledge

Ideas
- Show relationships between the ideas

Two important components:
- Major topics
- Linking words

Major topics
- That branch to

Linking words
- That

From: Center for Teaching and Learning
Life of a Star

- **Gravity**
  - Condenses
  - Protostar becomes
  - Star
  - Condenses
  - Star becomes main sequence
    - The main sequence is the longest and most stable part of a star’s life. During this period, the outward pressure of fusion and the inward acting force of gravity are balanced. Our Sun is a good example of a star in the main sequence.
  - Collapses
    - Red giant
      - Fusion stops, and star starts to collapse, causing pressure and temperature to increase to the point that the star expands several hundred times.
  - Red giant
    - which has
      - Small mass
        - Collapses into white dwarf
        - That cools to a black dwarf
      - Large mass
        - Explodes as supernova
        - Ejecting material
        - which becomes either neutron star or black hole
        - The fate of the core depends on its mass. Massive cores become neutron stars; very massive cores become black holes.
    - Collapses into black hole
Proposition: Without the industrial chemical reduction of atmospheric nitrogen, starvation would be rampant in third world countries.

Starvation and Famine

Deprivation leads to

 Predicted by

Malthus 1819

Such as in

Eastern Europe

India

Africa

Food

Can be limited by

Climate

Politics

Economics

Distribution

Can be increased by

Agricultural Practices

Used by humans as

Protein

Required for

Essential Amino Acids

Human Health and Survival

Required for

Population Growth

and

Grains

Legumes

Plants

Eaten by

Animals

Made by

Grains

Eaten by

Legumes

Such as

Pesticides

Genetics & Breeding

Herbicides

Irrigation

Fertilizer

“Fixed” Nitrogen

Atmospheric N₂

Haber Process

NH₃

Such as

Predicted by

Malthus 1819

Deprivation leads to

Population Growth

Such as in

Eastern Europe

India

Africa

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Can be limited by

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Can be increased by

Agricultural Practices

Used by humans as

Protein

Required for

Essential Amino Acids

Human Health and Survival

Required for

Population Growth

and

Grains

Legumes

Plants

Eaten by

Animals

Made by

Grains

Eaten by

Legumes

Such as

Pesticides

Genetics & Breeding

Herbicides

Irrigation

Fertilizer

“Fixed” Nitrogen

Atmospheric N₂

Haber Process

NH₃
Steps in constructing a Concept Map…

1. Brainstorming
2. Organizing
3. Layout
4. Linking
5. Finalizing
For second language learners, students of varying reading skill, students with learning disabilities, and younger learners

- Teachers can use concept maps as a pre-reading strategy by inviting students to share what they already know about a particular concept. While reading, teachers should ask students to help add to the map as a group using an overhead or large chart. This provides a visual aid for building upon their prior knowledge with new information they have gathered from reading.
- Teachers may wish to have students practice writing skills by asking students to write on their own concept map.
- Teach vocabulary words explicitly and use simple words.
- Be sure the pointed part of each arrow is clear. Design the graphics to minimize directional confusion.
- When applicable, allow students to draw pictures or use cut out pictures as well as words.
Examples from the field....
Checking for Understanding

• Kinesthetic Clues
• Four Square Model
• “What’s Stuck with you?”
Student Engagement

Active student engagement means that we are creating opportunities for students to be involved in instructional activities in numerous, varied and meaningful ways. It decreases the likelihood that behavioral challenges will emerge.
Learning Pyramid

- Lecture: 10%
- Reading: 20%
- Audiovisual: 30%
- Demonstration: 50%
- Practice doing: 75%
- Teach others: 90%

Average student retention rates

Source: National Training Laboratories, Bethel, Maine
Tell me,  
I forget.

Show me,  
I remember.

Involve me,  
I understand.

-Ancient Chinese Proverb
Students are motivated to engage when...

- Can make an Emotional/Personal Link to the Content/Process (Relate to Prior Knowledge/Experiences)
- Believe They Can Learn It
- See Value in the Learning
Student Engagement Model

http://www.studentengagementtrust.org/engagementModel/images/set_veen_diagram.png
Gradual Release of Responsibility Model

Frey, Fisher & Everlove, “Productive Group work”
Three Dimensions of Engagement

**Relational Engagement:**
The quality of students’ interactions in the classroom and school community

How do students’ ways of relating to their teachers and peers affect their motivation, performance, and understanding of academic content?

**Cognitive Engagement:**
The quality of students’ psychological engagement in academic tasks, including their interest, ownership, and strategies for learning

How do students’ emotional and cognitive investment in the learning process affect their performance and understanding of academic content?

**Behavioral Engagement:**
The quality of students’ participation in the classroom and school community

How do students’ patterns of behavior and participation in the classroom affect their motivation, performance, and understanding of academic content?

*Davis, An Interpersonal Approach to Classroom Management, 2012*
What Engaged Students Say, Do and Look Like

- Students are included and treated fairly.
- Students show that they know when they are successful in tasks.
- Students can make real authentic choices and regulate their own learning.
- Students seem secure and safe in the classroom.
- Students are actively discovering, constructing, and creating.
- Students are listening, observing, noticing, and being mindful.
- Students are immersed in tasks.
- Students keep busy and active. They are not clock-watching.
- Students say they understand task expectations.
- Students are saying, doing, writing, and responding openly.
- Students look satisfied and fulfilled after responding.
- Students sit, walk tall, speak up, look self-assured.

http://www.idra.org/IDRA_Newsletter/April_2008_Student_Engagement/Teaching_for_Cognitive_Engagement/#sthash.apXSbK9Z.dpuf
What Teachers Teaching for Engagement Do

- Teachers express high expectations.
- Teachers create personal human relationships between teachers and students.
- Teachers use a variety of space, student and room arrangements.
- Teachers link to prior knowledge and experience.
- Teachers plan and address allocated time, engaged time and academic learning.
- Teachers review frequently.
- Teachers do continual assessment and feedback.
- Teachers focus language on meaning, form and use.
- Teachers seek evidence of participation and flow.
- Teachers ensure all students are always doing something.
- Teachers articulate rules for participation.
- Teachers use list of evidence checks.
- Teachers include lots of language practice.
- Teachers use a variety of interaction modes.
- Teachers structure tasks in rigorous, active and accountable ways.

http://www.idra.org/IDRA_Newsletter/April_2008_Student_Engagement/Teaching_for_Cognitive_Engagement/#sthash.apXSbK9Z.dpuf
Rationale for Flexible Grouping

- Enhances Student Achievement
- Honors Student Differences
- Facilitates Differentiation
- Fosters Self-Regulatory Behaviors
- Allows for Ongoing use of Authentic Assessment
- Based on Social Learning Theory
- Alleviates Problems Associated with Ability Grouping
- More Effective than Random Grouping
- Provides Opportunities for Scaffolding Instruction
- Addresses Students’ Varying Age Appropriate/Developmental Needs
- More Practical than Tutoring or Remediation
To ensure a fair selection you all get the same test. You must all climb that tree.
Flexible Grouping

Homogenous/Ability
- Clusters students of similar abilities, level, learning style, or interest.
- Usually based on some type of pre-assessment.

Heterogeneous Groups
- Different abilities, levels or interest.
- Good for promoting creative thinking.

Individualized or Independent Study
- Self paced learning
- Teaches time management and responsibility
- Good for remediation or extensions

Whole Class
- Efficient way to present new content
- Use for initial instruction
<table>
<thead>
<tr>
<th>Principle</th>
<th>Critical Question</th>
<th>Increase Student Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive Interdependence</strong></td>
<td>Does the success of one benefit others? Is everyone’s contribution necessary?</td>
<td>Students encourage and tutor those who otherwise might give up. Every student’s contribution is necessary.</td>
</tr>
<tr>
<td><strong>Individual Accountability</strong></td>
<td>Is <em>individual, public</em> performance <em>required</em>?</td>
<td>Students who otherwise would not participate are required to respond.</td>
</tr>
<tr>
<td><strong>Equal Participation</strong></td>
<td>How equal is the participation?</td>
<td>Shy and weaker students are given equal time.</td>
</tr>
<tr>
<td><strong>Simultaneous Interaction</strong></td>
<td>What percent are interacting at once?</td>
<td>Per pupil active engagement is increased dramatically.</td>
</tr>
</tbody>
</table>

http://spencerkagan.weebly.com/classroom-strategies.html
**Graffiti**

During the Graffiti strategy, students brainstorm ideas and record them on large sheets of chart paper. This is a creative way to collect thoughts from all or most of the students in the classroom.
Examples from the field....
Student engagement

• Accountable Talk
• Positive Phrases
• Collaborative Learning Groups
Differentiated Instruction Is...

A proactive decision-making process that considers critical student learning differences and the curriculum. Differentiated instruction decisions are made by teachers and are based on: (1) formative assessment data, (2) research-based instructional strategies, and (3) a positive learning environment.
How are we designing instruction that uses who students are (*strategic decision-making*), what they know and can do (*assessment*), and that is reflective of their learning needs (*instruction*)?
Content: What the student needs to learn.

The instructional concepts should be broad based, and all students should be given access to the same core content. However, the content’s complexity should be adapted to students’ learner profiles. Teachers can vary the presentation of content, (i.e., textbooks, lecture, demonstrations, taped texts) to best meet students’ needs.

Carol Tomlinson
**Process**: Activities in which the student engages to make sense of or master the content.

Examples of differentiating process activities include scaffolding, flexible grouping, interest centers, manipulatives, varying the length of time for a student to master content, and encouraging an advanced learner to pursue a topic in greater depth.
**Products:** The culminating projects that ask students to apply and extend what they have learned.

Products should provide students with different ways to demonstrate their knowledge as well as various levels of difficulty, group or individual work, and various means of scoring.
Learning Environment: The way the classroom works and feels.

The differentiated classroom should include areas in which students can work quietly as well as collaborate with others, materials that reflect diverse cultures, and routines that allow students to get help when the teacher isn’t available.

THE DECISION-MAKING PROCESS in Differentiated Instruction

How can I adapt one or more of the 10 curriculum components to address the ONE targeted learning difference?
A word about…

Providing Meaningful Tasks

• **Rigor** – Tasks must be challenging enough to stimulate critical thinking and result in more than one response or conclusion.

• **Relevance** - Tasks must fulfill an emerging need and provide connection to current and/or desired state of being.

• **Relationships** – Tasks must offer a challenge or problem that requires engaging multiple perspectives to resolve.
# Vocabulary Vitamins

<table>
<thead>
<tr>
<th>Connect the word with something in your world and discuss it.</th>
<th>Locate the word in the text and read the paragraph to get context meaning.</th>
<th>Create a design that depicts the meaning of the word.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make a mnemonic to remember the word and its meaning.</td>
<td>Make a word puzzle or a game.</td>
<td>Contrast the word with something else.</td>
</tr>
<tr>
<td>Write a poem with the word, its meaning, and facts about the word. Illustrate it.</td>
<td>Tell a story using the word three times in the plot.</td>
<td>Teach the word and its meaning in a memorable way to a classmate or family member.</td>
</tr>
<tr>
<td>Explain how the word is used in the text.</td>
<td>Divide the word into syllables. Chant and tap the syllables.</td>
<td>Create a song, poem, cheer or rap using the word as the topic.</td>
</tr>
<tr>
<td>Role play the meaning of the word.</td>
<td>Design a banner or flag for the word.</td>
<td>Sell the word by writing an advertisement for it.</td>
</tr>
</tbody>
</table>
IN A DIFFERENTIATED CLASSROOM…

The More Ways You Teach,
The More Students You Reach!

VAK
Resources....

Dare to Differentiate..Choice board, Menu examples, Learning center ideas, RAFT etc....

http://daretodifferentiate.wikispaces.com

http://differentiationcentral.com/videos2.html
Examples from the field....
• Scaffolding the process not the product
• Accessible texts
Burning Questions
Thanks to……

• Donna Bonito- Green Acres Elementary-North Haven
• Rachel Sullivan- Montowese Elementary- North Haven
• Dennis Fowler- Lewis Mills HS- Burlington
Contact US or Visit the SERC Library

Irene H. Zytka, Ed. D, Consultant, SERC
tel: 860-632-1485, x363
e-mail: Zytka@ctserc.org

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  www.ctserc.org/library
  - Books
  - Instructional materials
  - Tests
  - Journals
  - Online databases
  - DVDs, videos, CD-ROMs
  - Professional development materials for staff