Quality Instruction

All Teachers, All Tiers, All Learners

Innovations Conference

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Archer, A., & Hughes, C. (2011). *Explicit Instruction: Effective and Efficient Teaching.* NY: Guilford Publications.

www.explicitinstruction.org

Quality Instruction

"The quality of teachers is the single most important factor in the educational system."

Wiliam, 2012

Quality Instruction

Student	3 years	Outcome
2nd grader at 50th percentile	high teacher	90th percentile
2nd grader at 50th percentile	low teacher	37th percentile

Sanders and Rivers, 1996

Quality Instruction

- Benefits of high teacher quality greater for low performing students than higher performing students.

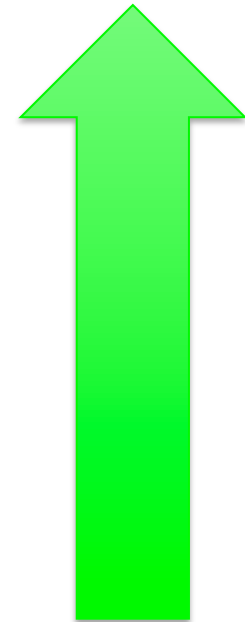Slater, Davis, and Burgess, 2008
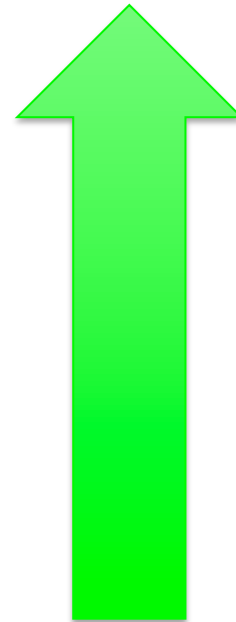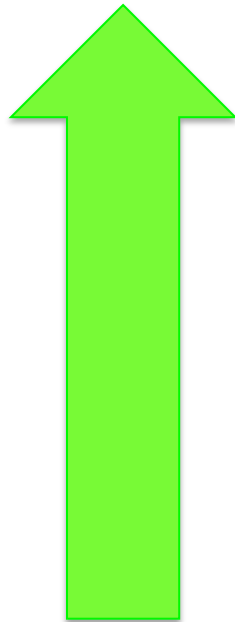
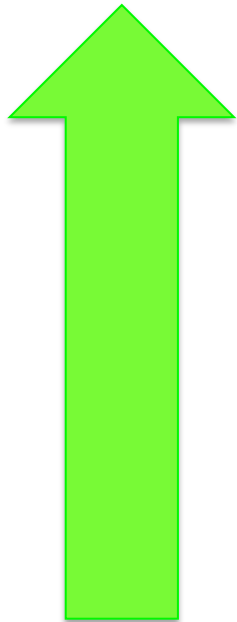# Quality Instruction

"The quality of an education system cannot exceed the quality of its teachers."

Barber and Mourshed, 2007

Desired Level of Performance

Current Level of Performance

Desired Level of Performance
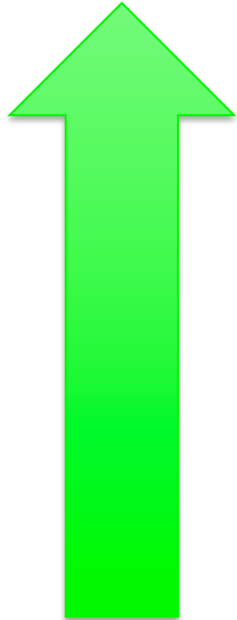
Curriculum
Instruction

Current Level of Performance

Video Lesson

Record any good practices.

What is Explicit Instruction?

- Explicit instruction is a **systematic instructional approach** that includes a set of **delivery and design procedures** derived from effective schools research………..

  Ideas that Work

- …**unambiguous** and direct approach to teaching that incorporates instruction design and delivery.

  Archer & Hughes, 2011

Explicit Instruction and Discovery
Not an either or - but a when.

Explicit Instruction	Discovery
Little or no background knowledge	A great deal of background knowledge in the domain
History of difficulty, of failure	History of success

Explicit Instruction Hattie & Yates, 2014

Teacher as Activator	d	Teacher as facilitator	d
Teaching students self-verbalization	.76	Inductive teaching	.33
Teacher clarity	.75	Simulation and gaming	.32
Reciprocal teaching	.74	Inquiry-based teaching	.21
Feedback	.74	Smaller classes	.21
Metacognitive Strategies	.67	Individualized instruction	.22
Direct Instruction	.59	Web-based learning	.18
Mastery Learning	.57	Problem-based learning	.15
Providing worked examples	.57	Discovery method in math instruction	.11
Providing goals	.50	Whole language	.06
Frequent effects of testing	.46	Student control overlearning	.04
Behavioral organizers	.41		
Average activator	.61	**Average facilitator**	.19

Agree – Disagree - Why

Structured discovery should be used when introducing new skills, strategies, and concepts to students.

Design of Instruction

Curriculum and Instruction

★ **Focus instruction on <u>critical content.</u>**

Emphasis is placed on skills, strategies, vocabulary terms, concepts, and facts that will empower students in the future and align with State Standards .

Example

- Reading
  - Phonemic Awareness
  - Decoding words
  - Reading fluently (accurate, appropriate rate, expression)
  - Understanding vocabulary (General and Domain-Specific)
  - Understanding passages (comprehension)

Motto for Tier 2 and 3: Teach the stuff and cut the fluff.

Curriculum and Instruction

★**Utilize well-designed, evidence – based curriculum materials in Tier 1, Tier 2, and Tier 3.**

- The standards are not a curriculum.

- Teachers and students need **well-designed materials** that include formative assessments, clear learning intentions , systematic instructional routines, and appropriate practice.

Curriculum and Instruction

★ **Provide systematic instruction on critical content.**

Lessons:
1. Are **organized** and **focused**

2. Begin with a statement of **goals (Learning Intentions)**

3. Provide **interactive review** of necessary preskills, recently taught strategies, content, or knowledge.

Curriculum and Instruction

★ **Provide systematic instruction on critical content.**

4. Provide **step-by-step demonstrations**

5. Provide **guided** and supported **practice**

6. Use **clear** and **concise** language

7. Provide **scaffolding** as needed to increase student success

Curriculum and Instruction

★**Provide systematic instruction on critical content.**

What we teach:

1. Facts and information
2. Skills and Strategies (How to do it)
3. Vocabulary and Concepts (What it is)

Curriculum and Instruction

Explicit Instruction of Facts/Information

Attend
Intend
Rehearse
Retrieve

Curriculum and Instruction

Retrieval Practice

"Practice at retrieving new knowledge or skill from memory is a potent tool for learning and durable retention."

"Effortful retrieval makes for stronger learning and retention." Brown, Roediger III, McDaniel, 2014

Curriculum and Instruction

Explicit Instruction of Skills/Strategies

Demonstration   **I do it.**

Guided Practice   **We do it.**

Check Understanding   **You do it.**

Curriculum and Instruction

Explicit Instruction of Concepts (Vocabulary)

1. Introduce the word.
2. Provide a "student-friendly explanation."
3. Illustrate with examples.
4. Check understanding.

Video Lesson

Record any good practices.

Delivery of Instruction

Curriculum and Instruction

★ **Elicit Frequent responses.**

Why beneficial?

Contributes to a positive learning environment
- increases **engagement**
- increases **on-task** behavior
- increases **accountability**
- promotes **desired behaviors**
- reduces **inappropriate behaviors**
- keeps class **moving** along

Curriculum and Instruction

★**Elicit Frequent responses.**

Why beneficial?

Check for understanding (Embedded formative assessment)

- allows the teacher to **monitor** understanding, **adjust** the lesson based on responses, and provide **feedback** to students

Curriculum and Instruction

★ **Elicit Frequent responses.**

Why beneficial?

Promotes learning
- **focuses** students' attention on critical content
- provides **rehearsal** of information and concepts
- provides **retrieval practice** of skills, strategies, concepts, vocabulary, and information

retrieve - respond - retain

Elicit frequent responses
Preview of Procedures

★ **Elicit frequent responses.**

Verbal Response Procedures
    Choral
    Partners
    Teams/Huddle Groups
    Individual
Written Response Procedures
    Types of writing tasks
    Whiteboards
    Response Cards/Response Sheets
Action Response Procedures
    Acting out/Simulations
    Gestures
    Facial Expressions
    Hand Signals

Curriculum and Instruction

★**Elicit frequent responses.**

The active participation procedure should:

1. Involve **all students**

2. Be **structured**

3. Allow adequate **thinking time**

Curriculum and Instruction

When thinking time was extended beyond 3 seconds these benefits occurred:

1. Greater participation by all learners
2. Length of student responses increased
3. Use of evidence to support inferences increased
4. Logical consistency of students' explanations increased
5. Number of questions asked by students increased

Curriculum and Instruction

Common but less desirable practices

#1. Calling on volunteers

Disadvantages:

- **Specific students volunteer.**
  - high performing students
  - assertive students
  - students proficient in English
- **Non-volunteers over time don't think or participate**

Limit calling on volunteers.

Curriculum and Instruction

Common but Less desirable practices

#2. Calling on inattentive students

Disadvantages:

- Inattentive student unlikely to have correct response
- Answers of inattentive student unlikely to add to richness of class discourse
- Attention is given to inappropriate behavior

Don't call on inattentive students.

Curriculum and Instruction

Choral Responses	Listen to all Hone in on low performing students
Partner Responses	Circulate Look at responses Listen to responses
Individual Responses	Listen carefully
Response Slates Response Cards Hand Signals	Look carefully
Written Responses	Circulate Look at responses
Action Responses	Look at responses

Monitor

Walk around.

Look around.

Talk around.

Feedback

"In the visual learning synthesis, feedback was associated with an **effect size of 0.73** indicating it is one of the most powerful factors implicated in academic learning and resultant achievement."

"Feedback refers to the process of securing information enabling change through adjustment or calibration of efforts in order to bring a person **closer to a well-defined goal.**" Hattie & Yates, 2014

Feedback

- **Praise/Acknowledge**

- **Encourage/Support**

- **Corrective Feedback**
    - Correct errors with the individual or the group.
    - Correct with a neutral affect.
    - Use: **I do it. We do it. You do it.**

Feedback

Feedback embedded within lesson

Given to the entire class

Given to individuals as the teacher monitors

Given to individuals in small group instruction

Feedback on assignments

Teacher provides feedback

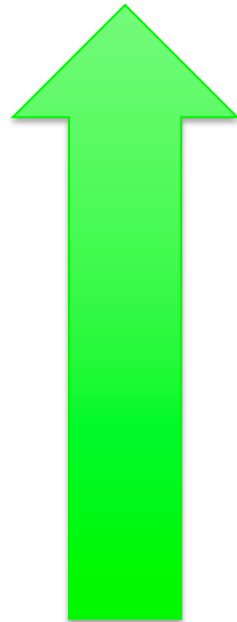Self-corrections under teach guidance
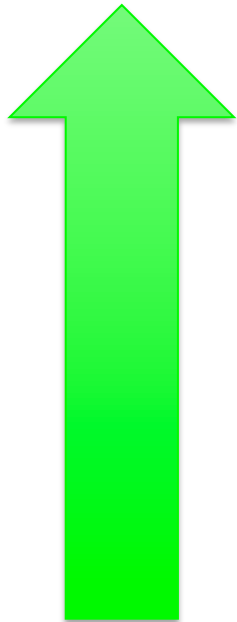
Self analysis of performance

Partner feedback on performance

Feedback

"Instruction is more effective than feedback. Feedback can only build on something; it is of little value when there is no initial learning or surface information." (Hattie & Timperley, 2007)

Desired Level of Performance
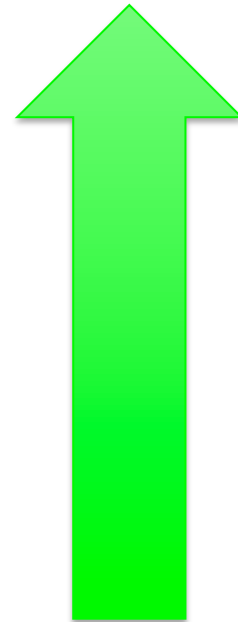
Curriculum   Feedback   Scaffolding   Practice
Instruction

Current Level of Performance

Scaffolding

Provide scaffolding that enhances success

Summary - Informational Text

Chapter: _____ Topic: _____

In this section of the chapter, a number of critical points were made about …

First, the authors pointed out that…

This was important because…

Next, the authors mentioned that…

Furthermore, they indicated…

This was critical because…

Finally, the authors suggested that…

Summary - Informational Text – Example

- **Chapter:** *Drifting Continents*
- **Topic*: Wegener's Theory*

- In this section of the chapter, a number of critical points were made about *Alfred Wegener's theory of continental drift.* First, the authors pointed out that *Wegener believed that all the continents were once joined together in a single landmass that drifted apart forming the continents of today.* This was important because *it explained why the outline of the continents as they are today fit together.* Next, the authors mentioned that *Wegener argued that there were many pieces of evidence supporting his theory of continental drift.* Furthermore, they indicated *that Wegener used evidence of similar landforms and fossils on different continents to prove his theory.* This was critical *because other scientists could validate this evidence.* Finally, the authors suggested t*hat despite this evidence, other scientists did not accept Wegener's theory because he could not explain the force that pushes and pulls the continent.*

Compare and Contrast

… and … are similar in a number of ways.

First, they both……

Another critical similarity is …

An equally important similarity is …

Finally, they …

The differences between … and … are also obvious.

The most important difference is …

In addition, they are …

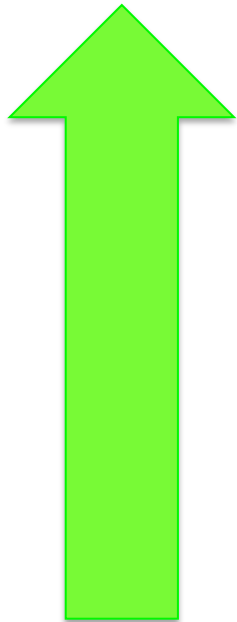In the final analysis, … differs from … in two major ways: …

Compare and Contrast - Example

Narrative and *informative written products* are similar in a number of ways. First, they both *have an author intent on sharing his/her ideas.* Another critical similarity is *the goal of informative and narrative writing: to communicate to a reader or group of readers.* An equally important similarity is *that both genre' utilize the words, mechanics, and grammar of the author's language.* Finally, *both are read on a daily basis across the world.*

The differences between *narrative* and *informative written products* are also obvious. The most important difference is *their purpose. Narratives convey a story, real or imagined, while informative products transmit information that the reader needs or is interested in learning.* In addition, they are *structured differently. The structure of a narrative is based on the elements of a story: settings, characters, the character's problems, attempts at resolving the problem, and finally its resolution. In contrast, when writing an informative product, authors organize the information into paragraphs each containing a topic and critical details.* In the final analysis, *narratives* differ from *informative text* in two major ways: *content and structure.*

Desired Level of Performance
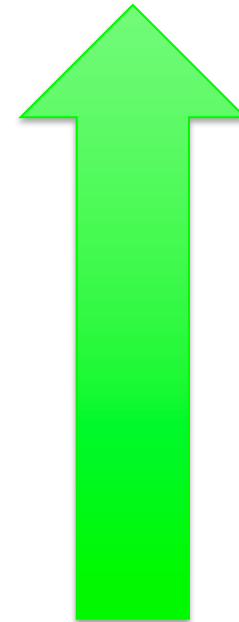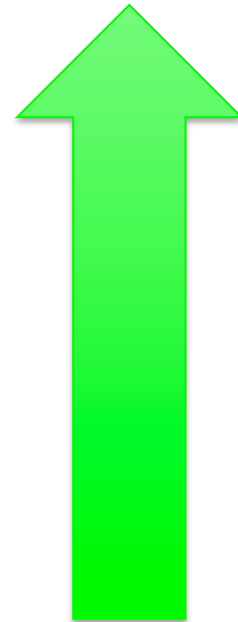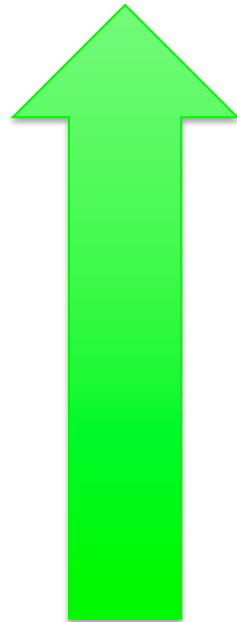
Curriculum
Instruction   Feedback   Scaffolding   Practice

Current Level of Performance

Practice

Practice

Practice

Practice

Practice

Retrieval Practice

Practice

"It is virtually impossible to become proficient at a mental task without extended practice." Willingham, 2009

"Development of basic knowledge and skill to the necessary levels of automatic and errorless performance requires a great deal of drill and practice..." Brophy, 1986

"Use it or lose it." Unknown

Practice

Purpose and Benefits of Practice

- Reinforces the basic skills needed to learn more advanced skills (proficiency, fluency, automaticity)

- Protects against forgetting (retention, maintenance)

- Improves transfer (generalization)

Practice

Types of Practice

- **Initial Practice**

- **Distributed Practice**

- **Cumulative Practice/Review**

Practice

Initial Practice

- Occurs under watchful eye of the teacher

- Provide numerous practice opportunities within the teacher-directed lesson to build accuracy. Provide immediate feedback after each item.

Practice

Distributed or Spaced Practice

- Studying or practicing a skill in short sessions overtime.

- Distributing practice overtime (versus massing practice in one session) aids retention in a variety of academic areas.

Practice

"**Retrieval practice** – recalling facts or concepts or events from memory – is more effective learning strategy than review by rereading."

Distributed or spaced practice – "Periodic practice arrests forgetting, strengths retrieval routes, and is essential for hanging onto the knowledge you want to gain." Brown, Roediger III, &McDaniel, 2014

Practice

Cumulative Review

- Provide **intentional review** of previously taught skills/ strategies/concepts /vocabulary/knowledge.

- Goal is to increase long-term retention.

Practice

Range of practice activities

Paper and pencil tasks

Practice embedded in lesson

Practice games

Practice with partners

Practice on computer/tablet

Practice

"... When basic skills are **automated**, mental space becomes available for deeper levels of thinking and understanding"
Hattie & Yates, 2014

- Reading words
- Reading passages
- Writing manuscript/cursive
- Typing/Keyboarding
- Spelling
- Saying numerals and value
- Math facts
- Graphing
- Solving equations
- Locating information in reference source
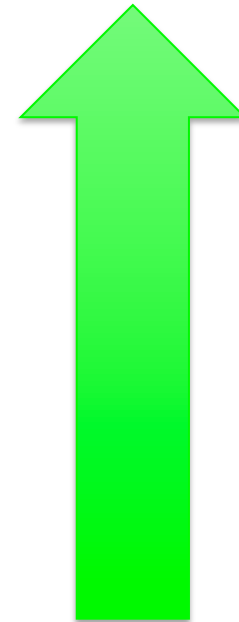- Others

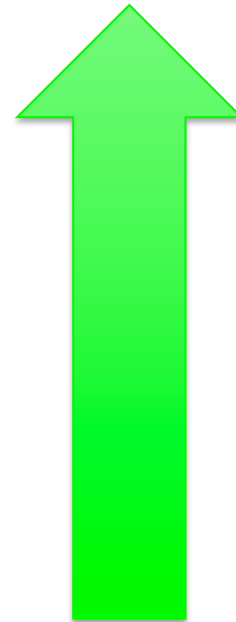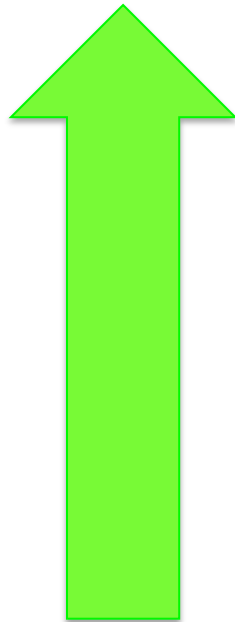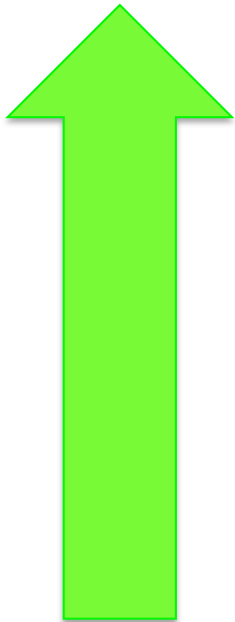# Practice

It is not: Drill and Kill

It is: **Drill and Skill**

Perhaps: **Drill and Thrill**

Video Lesson

Record any good practices.

Reflection

- What aspects of instruction need additional focus by your agency?

Let us remember:

**How well we teach =
How well they learn**

**Teach with Passion
Manage with Compassion**

Recommended Books

Book	Authors	Year
Explicit Instruction	Archer and Hughes	2011
Make it Stick	Brown, Roediger III, McDaniel	2014
Visible Learning	Hattie	2009
Visible Learning and the Science of How we Learn	Hattie and Yates	2014
Embedded Formative Assessment	Wiliam	2011
Why Don't Students Like School?	Willingham	2009