

# Considerations for Teaching Early Reading Skills and Its Relation to an Analysis of Verbal Behavior

August 2<sup>nd</sup>, 2017  
National Autism Conference  
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## Essential Components of Effective Reading Instruction (NRP, 2000):

- Phonemic awareness
- Phonics instruction
- Fluency instruction
- Vocabulary instruction
- Reading comprehension

## Phonemic Awareness

- Ability to notice, think about, and work with the individual sounds in spoken words.
- Children need to become aware of how the sounds in words work.
- They must understand that words are made up of speech sounds, or phonemes.

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## Phonemic Awareness

- Isolating phonemes (e.g., “*What is the first sound in the word **man**?*”- “m”)
- Identifying phonemes (e.g., “*What sound is the same in **man**, **mop**, and **my**?*”- “m”)
- Categorizing phonemes (e.g., “*Which one does not belong? **dog**, **dance**, **top**, **dice***”- “top”)
- Blending phonemes to form words (e.g., “*What word is /m/ /o/ /m/?*”- “/m/o/m/ is mom”)

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## Phonemic Awareness

- Segmenting words into phonemes (e.g. “How many sounds in the word **mop**?”- (m/o/p-3 sounds)
- Deleting or adding phonemes to form new words (e.g., “What is **stop** without the /s/?”-“Smile without the /s/ is top.”)
- Substituting phonemes to make new words (e.g., “The word is **mop**. Change /m/ to /t/. What’s the new word?”- “top.”)

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## Phonemic Awareness

- Most effective when:
  - when children are taught to manipulate phonemes by using the letters of the alphabet.
  - when instruction focuses on only one or two rather than several types of phoneme manipulations.
  - When students begin blending the sounds together as early as possible

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## Phonics Instruction

- Teaches children the relationships between the letters (graphemes) of written language and the individual sounds (phonemes) of spoken language. It teaches children to use these relationships to read and write words

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## Phonics Instruction

- Knowing these relationships will help children recognize familiar words accurately and automatically, and “decode” new words
- Systematic and explicit phonics instruction is more effective than non-systematic or no phonics instruction
- A program of systematic phonics instruction clearly identifies a carefully selected and useful set of letter-sound relationships and then organizes the introduction of these relationships into a logical instructional sequence

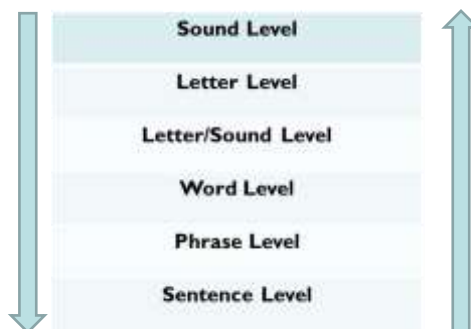
## Phonics Instruction

- Most effective if:
  - **Systematic**—the plan of instruction includes a carefully selected set of letter-sound relationships that are organized into a logical sequence.
  - **Explicit**—the programs provide teachers with precise directions for the teaching of these relationships.

## Fluency Instruction

- Ability to read a text accurately and quickly.
- Allows readers to recognize words automatically.

- Developmental progression of oral reading fluency
- Need to ensure accuracy and automaticity at every level as indicated in the chart
- Oral reading fluency is more than just speed!



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## Vocabulary Instruction

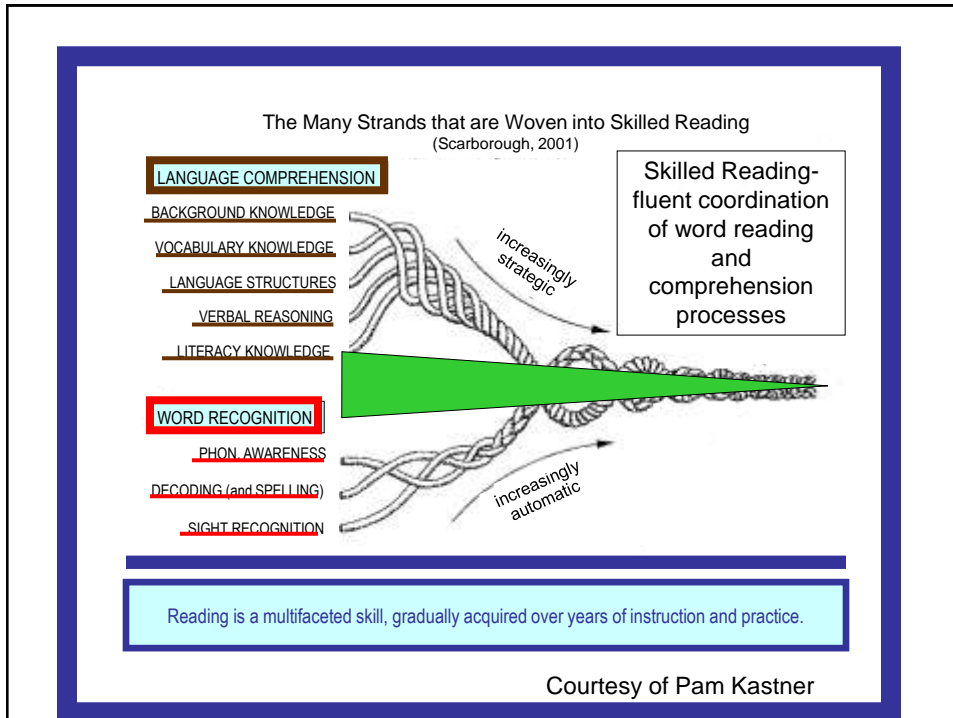
- Vocabulary refers to the words we must know to communicate effectively
  - **listening vocabulary**—the words we need to know to understand what we hear.
  - **speaking vocabulary**—the words we use when we speak.
  - **reading vocabulary**—the words we need to know to understand what we read.
  - **writing vocabulary**—the words we use in writing.

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## Reading Comprehension Instruction

- **Comprehension is the reason for reading. If readers can read the words but do not understand what they are reading, they are not really reading.**
- Reading is more than textual behavior
  - Textual: a written verbal stimulus sets occasion for a corresponding spoken verbal response

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## Reading Instruction for Individuals with ASD

- Generally, converging evidence from a handful of studies describes the reading skills of children with ASD as having relative strengths in decoding while experiencing greater difficulty with language and reading comprehension (Calhoon, 2001; Frith, 2003; Lord & Paul, 1997; Nation, Clarke, Wright, & Williams, 2006) *Evidence-Based Reading Instruction for Individuals with Autism Spectrum Disorders, Whalon et al.*

## **“direct instruction Viewpoint on Improving Student Performance** (Carnine, Silbert, Kame’enui, & Tarver, 2004)

- Students will learn if we teach essential skills in the most effective and efficient manner possible; focus is placed on explicit and systematic teacher-led instruction.

## **Arranging Reading Instruction to Established Generalized Responses**

- Teach component skills that will lead to generative responding
- Sequence instruction/stimuli from easy to hard
- Distinguish between the cumulative and generalized repertoires (phonics vs. blending)



## What are relevant component skills?

- Echoic: repeating what others say, using self-echoic to mediate other responses
- Broad range of tacts, including items, actions, adverbs, adjectives, multiple component tacts, and prepositions
- Verbal conditional discriminations
- Listener: follow simple directions, follow multiple component directions

## What are some relevant component skills?

- Answering questions and early inferences (initially in presence of the tact)
  - How are \_\_\_\_ and \_\_\_\_ alike
  - How are \_\_\_\_ and \_\_\_\_ different
  - How do you know?





## What is **D**irect **I**nstruction?

Published, research-validated curriculum used in combination with **d**irect **i**nstruction (effective teaching procedures)

## Three Main Components of Direct Instruction Programs

- Program Design
- Instructional Organization
- Teaching Techniques

## Main Components of Direct Instruction

- Program Design:
  - I. Analysis of content matter and identification of organizing ideas and generalizable strategies to enable more learning in less time

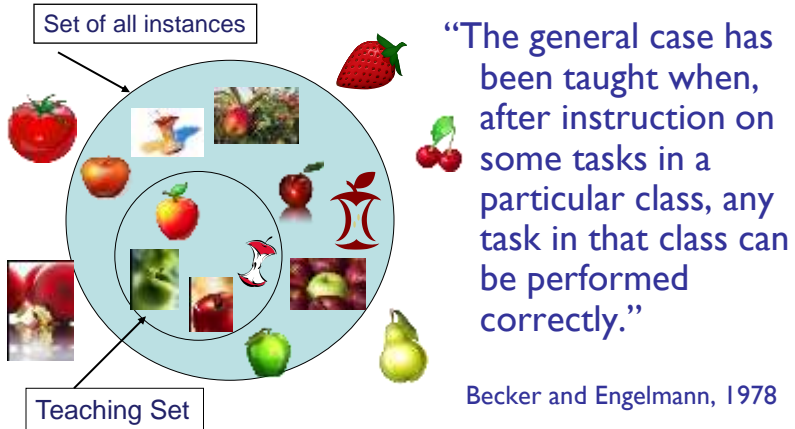
## Main Components of Direct Instruction

- Program Design:
  2. Clear communication is designed:
    - **Wording Principle:** use wording that is similar across all items so students can focus on the details of instruction (minimizes distractions and confusion likely caused by variation in teacher language).
    - **The setup Principle:** Examples and non-examples share the greatest possible number of irrelevant features.
    - **The Difference Principle:** Examples shown are similar to one another except in the critical feature and the difference of the non-example is just enough to change the positive example to a negative example.
    - **The sameness Principle:** Show the range of variation (full range of positive examples and limit of variation shown by negative examples).
    - **Testing Principle:** Test for new examples and non-examples to test for generalization.

## Main Components of Direct Instruction

- Program Design:
  3. Instructional formats are designed to structure the student-teacher interactions: clear and concise and specify the way teachers will present each example.
  4. Skills sequenced to maximize success and minimize confusion: emphasis on teaching skills that will allow students to be successful at strategies they will learn later on.
  5. Topics and objectives are organized into tracks to allow for systematic skill development and support cumulative review and application

## General Case Instruction



## General Case Instruction

10 whole words

vs.

10 sounds and blending skill =

- 720 three-sound words
- 4,320 four-sound words
- 21,600 five-sound words

Becker, 1971 (An Empirical Basis for Change in Education)

## Main Components of Direct Instruction

- Organization of Instruction:
  1. Organize students into groups to best meet their needs.
  2. Allocate sufficient time for teaching; allow sufficient time for students to be involved in learning activities that they can perform successfully.
  3. Implement precise and careful plans through presentation of scripted lessons.
  4. Engage in continuous assessment of student performance.

## Scripted Presentation

- Provides examples
- Standardized wording
- Ensures precision
- Provides efficient corrections
- Controlled time per activity
- Increased academic learning time

## Rules for Reviewing Scripts

- Decide where to add **think time** and **get ready**
- Where to add **pause** and **punch**
- Where to **verify responses**
- Where to add **overt responses**
- Where to add **meaningful repetition**
- Where to **modify** or **add examples**

## Grouping

- Group size and composition adjusted to accommodate and reflect student progress and lesson objectives.
  - **Grouping is flexible and dynamic**
- Group size is differentiated according to the needs of students
  - **Students with the greatest needs are taught in the smallest groups.**
- Cross-class or cross-grade grouping may be used *when appropriate* to maximize opportunity to tailor instruction to students performance level.
  - **Groups are homogeneous**



## Main Components of Direct Instruction

- Student-Teacher Interactions:
  1. Active student participation
  2. Group unison responding
  3. Signals
  4. Pacing
  5. Teaching to mastery
  6. Correction procedures
  7. Motivation

## Set-Up for Successful Teacher-Student Interactions

- Clear expectations (rules and routines)
- Materials organization
- Seating
  - Assign seating
  - Lower performers closest to teacher
  - All students can see the teacher/materials
  - Teacher can see all students in the group
  - Teacher can see independent workers



## Basic Teaching Template: Instructional Format Model-Lead-Test-Verify

**Frame:** The teacher states the learning task at hand.

**Model:** The teacher provides the expected response verbally or through demonstration. If needed, the teacher repeats the model to make sure all students heard or saw it.

**Lead:** The teacher and students respond together—several times if needed to ensure that all students practice responding correctly with teacher.

**Test/Check:** Students perform the task independently, several times if needed to do it correctly.

**Verification.** The teacher provides specific praise—stating what the students learned.

## Sample Format

<b>Model</b>	Teacher	<i>My turn to sound out this word.</i>	<b>man</b> “mmaaannn”
<b>Lead</b>	Teacher and Students	“Say it with me,	<b>man</b> “Sound it out with me, mmaaannn”
<b>Test</b>	Students	“What sound?”	“All by yourselves, sound it out.” mmaaannn”
<b>Verify</b>	Teacher	“Yes, /mmm/”	“Yes, mmaaannn”

## Signals

- **Visual or auditory** cues that are used to control the timing of students' responses.
- **Purpose of signals:**
  - Increases the likelihood of ALL students initiating a response.
  - Allows ALL students to practice the task.
  - Allows the instructor to monitor every student.
  - Allows the instructor to hear incorrect responses and correct them immediately.

- **4 Basic steps:**
  - A focus cue to gain students' attention and present the task
  - Brief pause (about 1 second)
  - A verbal cue ("get ready")
  - A signal
- **Rule of Thumb: Signal for student to respond**
  - Instructor only talks on focus position
  - Instructor never talks and moves at the same time

## Language for Learning/Thinking Signals

- Hand Drop
  - At the beginning of each step of the exercise, raise your hand. DO NOT move your hand while talking.
  - Ask the question or give the instruction.
  - Pause for about one second, and then quickly drop your hand to signal for students to respond.
- Point/touch:
  - Look at the picture.
  - Point to the picture (make sure all students can see it).
  - Ask the question or give the instruction.
  - Hold your finger in the point position for one second.
  - Signal with a tap.

## Reading Mastery Signals

- **Continuous sound signal: loop**

1. Focus
2. Preparation
3. Response
4. Release
5. Verify

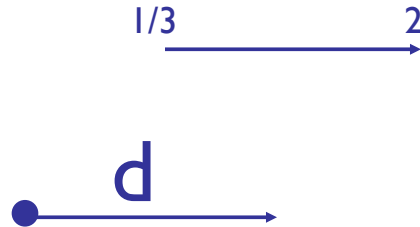
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## Reading Mastery Signals

- **Stop sound signal: slash**


1. Focus
2. Response
3. Verify



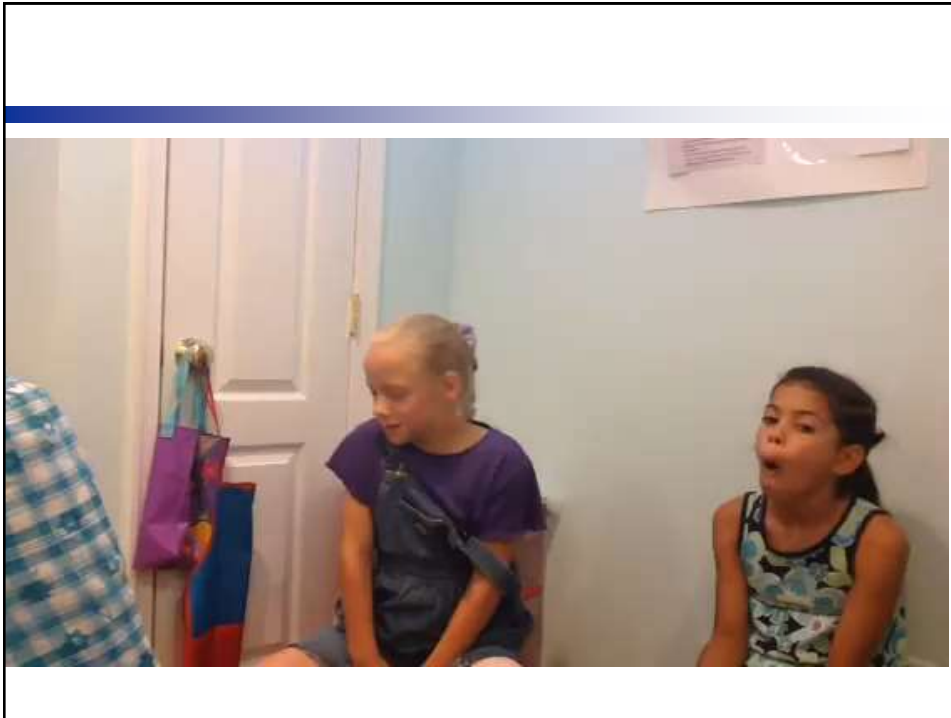
## Reading Mastery Signals

- **Pronunciation signal: hold up finger**
  - 2 seconds for continuous sounds
  - Flash for stop sounds

## Reading Mastery Signals

- **Saying Sounds:**
  - **Hold up finger:** slow sounds
  - **Hand Drop:** Say it fast
- **Sound out:**  **man**
  - **Loop-Loop**
- **Rhyming Signals:**
  - **Loop stopping for one second at ball then slash to arrow (loop & slash):** for sounding out
  - **Slash quickly:** For say it fast





**ERROR CORRECTION**

## General Corrections

- **Student not attending:**
  - Teacher corrects by saying, “Let’s try again”, and returns to beginning of task.
  - Review effective teaching practices (VR, prompt procedures, error correction)
- **If a student fails to answer when the signal is given...**
  - Teacher corrects by saying, “I have to hear everybody”, and then returns to the beginning of the task.

## General Corrections

### **If a student responds either before or too long after the signal...**

Teacher corrects by saying, “I need everybody to respond on my signal”, and returns to the beginning of the task.

Alternatives:

“You have to wait until I signal. Let’s try it again.”

“You have to answer as soon as I signal.”



## Specific Corrections

- Vary depending on the specific response errors.
- Correction procedures are presented in the teacher's presentation book under the exercise for which they apply.

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## Statement Corrections

All statement corrections start with "My turn" and end with "starting over"

### Error Correction Template:

- Model: "My turn"
- Lead: "Say it with me"
- Test: "Your turn by yourself"
- Verify: "Yes, \_\_\_\_\_"
- Starting Over: Start at beginning of task

## Correcting Alternative Responding

Used when student responds with correct but alternative response (different from response on presentation book).

- Teacher indicates response is correct by saying, “right, some people call this \_\_\_\_\_, but it is also called a \_\_\_\_\_. Let’s use \_\_\_\_\_.”
- This is important for consistency across students and on future lessons.

## Correct but Inappropriate Responding

- Teacher immediately stops the students and follows this sequence:
- Models an acceptable way of responding (Example: “I can say that sentence the nice way. Listen. I am touching my head.”)
- Leads students through response (“Let’s all say that sentence the nice way”)
- Tests students (“Let’s hear you say that sentence the nice way all by yourselves”).



## Motivation

### Important Considerations on Motivation and Reinforcement:

- Tell student the goal
- Use specific praise
- Don't spend a great deal of time in reinforcement...reinforce quick and move on.
- Challenge the student
- Use tangible reinforcers if necessary...Check for MOTIVATION!
- Don't forget differential reinforcement and student's VR applies here too!!
- Reinforce only when student performs according to acceptable standards.

## Goal for DI :Criteria for Mastery

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All students responding correctly on signal in the scripts original context.

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**DATA COLLECTION-DBDM  
AND  
TREATMENT INTEGRITY**



**Can he/she start DI yet?**

**STUDENT READINESS SKILLS**

### **Pre-Requisite Skills for Reading Mastery**

- Echo sounds/words
- Imitate prosody...speed (fast and slow)
- Imitate prosody...duration (sustain a sound for about 3 seconds)
- Follow simple instructions

## Language for Learning

- Echo words/phrases
- Discriminate and Tact many items and actions
- Respond to simple yes/no questions
- Perform simple actions on command
- Describe objects (parts/features)
- Respond to name

## A critical point!

- Remember that the placement tests included with Reading Mastery materials do not account for language and other relevant skill deficits
- Part of the assessment for placement should be to ensure students have the readiness skills as well as the component language skills that will lead to effective reading

## Assessment for Placement

- To determine what lesson to start on the following should be considered:
  - Rather than using placement tests, which can often be misleading, consider using the mastery tests at the end of each unit
  - Place student at first lesson pertaining to the first mastery test where they did not meet passing criteria
  - It may be appropriate to start at easier lessons to teach responding to signals (can be taught in isolation as well)

## So what do I teach if he/she is not ready?

- Start with “show me ready”:
  - Ready hands (hands folded on lap)
  - Seated in chair
  - Feet on floor
  - Body and eye gaze oriented toward teacher
- Teach first in imitation, then transfer to listener response



## Other critical skills:

- Choral/unison: Students' ability to respond along with others in a group setting (responding on signal).
- Individual Responding: Student's ability to respond when called on in a group setting.
- Waiting for others individual responses: Student's ability to remain quiet and attentive when it is another student's individual turn to respond.

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