

Success for students with language and literacy disorders

Ole Miss Fall Institute
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DuBard School
for Language Disorders
THE UNIVERSITY OF SOUTHERN MISSISSIPPI

What is Language?

- The American Speech-Language-Hearing Association defines language as the comprehension and/or use of spoken (listening and speaking), written (reading and writing) and/or other communication symbol system (e.g., ASL).

<http://www.asha.org/Practice-Portal/Clinical-Topics/Spoken-Language-Disorders/Language-in-Brief/>

Speaker Disclosure

- *Missy Schraeder is employed as director, DuBard School for Language Disorders; course development and presentations are included in job responsibilities. She is also a co-author of DuBard Association Method® therapy materials and receives royalty payments. She will receive travel and accommodation reimbursements for this conference. There are no other non-financial relationships.*

What is Language?



- Language includes receptive and expressive components.
- Receptive—listening, understanding nonverbal communication, reading.
- Expressive—speaking, using nonverbal communication, writing.

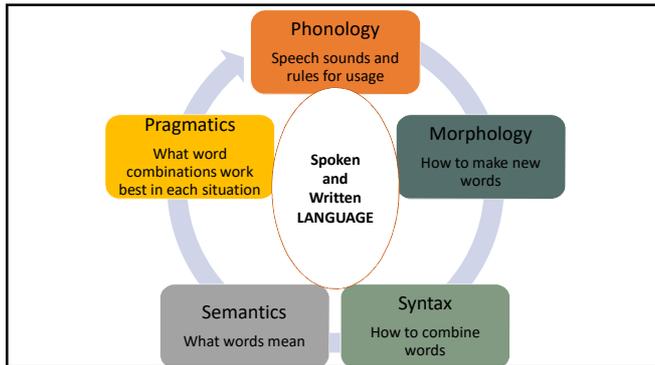
Session Outline

- Definitions of language, reading, and communication disorders
- Relationship between oral and written language
- Characteristics of oral and written language
- Definition of dyslexia
- Comorbidities and the language quadrants
- National standards for Structured Literacy
- DuBard Association Method®
 - Distinctive features
 - Levels of instruction
 - Efficacy data

What is Language?

- Spoken language and written language and their associated components are each a synergistic system comprised of five individual language domains that form a dynamic integrative whole.

<http://www.asha.org/Practice-Portal/Clinical-Topics/Spoken-Language-Disorders/Language-in-Brief/>



Relationship Between Oral and Written Language

- Reading is a language-based skill.
- The relationship between oral language and written language is reciprocal.
- Although related, oral language and written language are not the same.
- Learning to read and write (written language) is part of learning to speak and comprehend (oral language).

Soifer, L. H. (2018). Oral language development and its relationship to literacy. In J. Birsh & S. Carreker (eds.), *Multisensory teaching of basic language skills – Third edition* (pp. 49-91). Baltimore, MD: Paul H. Brookes Publishing Co.

What is Reading?

Reading is described as the product of word recognition and language comprehension (Gough & Tunmer, 1986; Hoover & Gough, 1990; Scarborough, 2001). This is known as the Simple View of Reading.

The ultimate goal of reading is comprehension of the written text (Carreker, 2011; Scarborough, 2001).

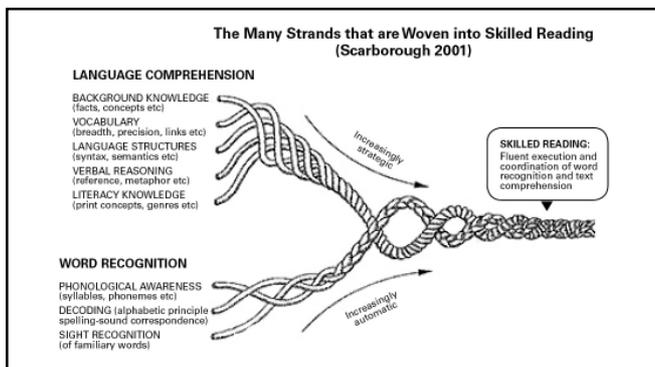
Relationship Between Oral and Written Language

- The integration of word recognition, vocabulary, and oral language comprehension are important for the development of adequate reading comprehension skills.

Soifer, L. H. (2018). Oral language development and its relationship to literacy. In J. Birsh & S. Carreker (eds.), *Multisensory teaching of basic language skills – Third edition* (pp. 49-91). Baltimore, MD: Paul H. Brookes Publishing Co.

- “...if print cannot be translated into language, then it cannot be understood.”

Gough, P. B. & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education*, 7(1), 6-10.



Relationship Between Oral and Written Language

- In using both oral and written language, one must recognize word patterns, word structure, and sentence forms. One must know word meanings and how words related to one another. One must be able to use context to interpret intent.
- Listening and speaking are part of typical development.
- Reading and writing generally must be taught.

Soifer, L. H. (2018). Oral language development and its relationship to literacy. In J. Birsh & S. Carreker (eds.), *Multisensory teaching of basic language skills – Third edition* (pp. 49-91). Baltimore, MD: Paul H. Brookes Publishing Co.

Communication Disorders

- A *communication disorder* is an impairment in the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems.

<http://www.asha.org/policy/RP1993-00208.htm>

A **language disorder** is impaired comprehension and/or use of spoken, written and/or other symbol systems.

- The form of language –
 - phonology, morphology, syntax
- The content of language –
 - semantics
- The function of language in communication –
 - pragmatics

Communication Disorders

- May be evident in hearing, language, and/or speech
- May range in severity from mild to profound
- May be developmental or acquired
- May result in a primary disability or may be secondary to other disabilities
- May be present in any combination

A **hearing disorder** is the result of impaired auditory sensitivity of the phonological auditory system.

Deaf is defined as a hearing disorder that limits an individual's aural/oral communication performance to the extent that the primary sensory input for communication may be other than the auditory channel.

Hard of hearing is defined as a hearing disorder which adversely affects an individual's ability to communicate. An individual who is hard of hearing relies on the auditory channel as the primary sensory input for communication.

A **speech disorder** is an impairment of the articulation of speech sounds, fluency and/or voice.

An **articulation disorder** is the atypical production of speech sounds that may interfere with intelligibility.

A **fluency disorder** is an interruption in the flow of speaking characterized by atypical rate, rhythm, and repetitions.

A **voice disorder** is characterized by the abnormal production of vocal quality, pitch, loudness, resonance, and/or duration.

A **central auditory processing disorder** is a deficit in the information processing of audible signals not attributed to impaired peripheral hearing sensitivity or intellectual impairment.

<http://www.asha.org/policy/RP1993-00208.htm>

Characteristics of Oral and Written Language Disorders

- ✓ Poor attention, especially for language
- ✓ Poor memory and poor memory for sequences
- ✓ Poor predictability for language
- ✓ Performance and achievement below expectations
- ✓ Difficulty with phonological awareness—including segmenting and blending

SOME of the Characteristics Specific to Written Language Disorders



- ✓ Difficulty with sound-symbol association
- ✓ Poor spelling
- ✓ Inaccurate or labored oral reading—lack of reading fluency
- ✓ Difficulty with comprehension—oral and written
- ✓ Difficulty in word finding and rapid naming
- ✓ Poor written expression

Difficulty with Sound-Symbol Association
 Poor Predictability for Language
 Poor Spelling
 Messy Handwriting
 Size and spacing errors
 Directional uncertainty
 Poor Organizational Skills
 Family History
 Difficulty with Oral and Written Comprehension

- ✓ Messy handwriting prone to size and spacing errors
- ✓ Directional uncertainty
- ✓ Poor organizational skills
- ✓ Negativism and emotional upset indicative of unused learning ability
- ✓ Family history of similar problems or history of speech-language problems

What is Dyslexia?

- Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities.



www.eida.org
 Adopted by the IDA Board of Directors, Nov. 12, 2002

What is Dyslexia?

- These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction.



www.eida.org

Adopted by the IDA Board of Directors, Nov. 12, 2002

What is Dyslexia?

- The child with dyslexia has trouble almost exclusively with the written (or printed) word. The child who has dyslexia as part of a larger language learning disability has trouble with both the spoken and the written word.

American Speech-Language-Hearing Association
<http://asha.org/public/speech/disorders/LBLD.htm>

What is Dyslexia?

- *Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.*

www.eida.org

Adopted by the IDA Board of Directors, Nov. 12, 2002

Comorbidities

- *Many poor readers have additional language impairments.*
Catts, H.W., Kamhi, A.G., & Adlof, S.M. (2012)
- *Students with language impairments are more likely than typically developing children to develop reading difficulties because of language deficits.*
Catts, H.W., Kamhi, A.G., & Adlof, S.M. (2012)
- *Students with reading disabilities have impaired working memory.*
Swanson, H.L. & Zheng, X. (2013)

What is Dyslexia?

- *Dyslexia* has been used to refer to the specific learning problem of reading. The term *language-based learning disability*, or just *learning disabilities*, is better because of the relationship between spoken and written language.

American Speech-Language-Hearing Association
<http://asha.org/public/speech/disorders/LBLD.htm>

- *Language disorders and reading disorders are often comorbid conditions.*
Elliot, J.G. & Grigorenko, E.L. (2014)

- *Students with dyslexia may have both receptive and expressive oral language problems such as difficulty with phonological processing or problems with organizing language for expression.*
Berninger, V.W. & Wolf, B.J. (2009)

- *Children with early speech and language difficulties are at greater risk for reading difficulties.*
Ferrer, E., Shaywitz, B. A., Holahan, J. M., Marchione, K. E., Michaels, R., & Shaywitz, S. E. (2015)

Other Conditions that may Impact Literacy

- Attention Deficit/Hyperactivity Disorder
 - Persistent pattern of inattention and/or hyperactivity
 - Interferes with functioning or development
 - Symptoms present in multiple settings
 - Negatively impacts social, academic, or occupational functioning
 - Symptoms present before age 12

<http://www.asha.org/policy/TR2007-00278/#sec1.2>

Simple View of Reading

- Reading is the product of decoding and comprehension.
- $R = D \times C$
- Each factor ranges from 0 to 1, where 1 is perfection.
- “Decoding is not sufficient; comprehension is also necessary.”
- “Comprehension is not sufficient, for decoding is also necessary.”

Gough, P. B., & Tunmer, W. E., (1986). Decoding, Reading, and Reading Disability. *Remedial and Special Education*, 7(1), 6-10.

• Childhood Apraxia of Speech

CAS is a neurological childhood speech sound disorder in which the precision and consistency of movements underlying speech are impaired in the absence of neuromuscular deficits (e.g., abnormal reflexes, abnormal tone).

<http://www.asha.org/policy/TR2007-00278/#sec1.2>

Simple View of Reading

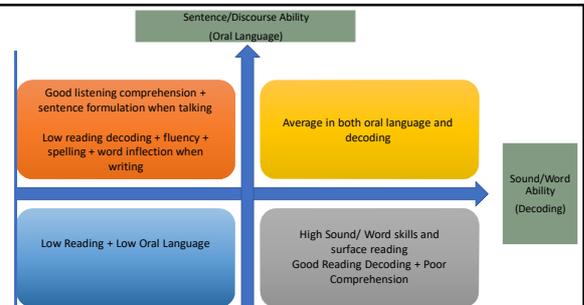
Reading disability can result in three different ways:

1. Inability to decode
2. Inability to comprehend
3. Both

Gough, P. B., & Tunmer, W. E., (1986). Decoding, Reading, and Reading Disability. *Remedial and Special Education*, 7(1), 6-10.

Childhood Apraxia of Speech places a child at increased risk for early and persistent problems in speech, expressive language, and the **phonological foundations for literacy**.

<http://www.asha.org/policy/TR2007-00278/#sec1.2>



International Multisensory Structured Language Education Council (IMSLEC)

- More than 30 courses in over 90 locations nationwide
- Alphabetic Phonics
- DuBard Association Method®
- Orton-Gillingham
- Slingerland
- Spalding
- And many others

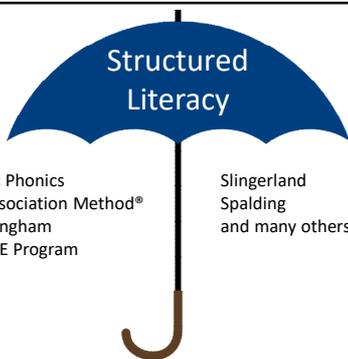
What is included in Structured Literacy?

- **PHONOLOGICAL AWARENESS**
- Phonological awareness is the sensitivity to, or explicit awareness of, the phonological structure of words in one's language. It involves the ability to identify, think about and manipulate the individual sounds in words.

Content: Structure of the English Language	Principles of Instruction				
	Simultaneous Multisensory VACT	Systematic & Cumulative	Direct Instruction	Diagnostic Teaching to Automaticity	Synthetic/ Analytic Instruction
Phonology & phonological awareness	*	*	*	*	*
Sound/symbol association: visual to auditory, auditory to visual, blending and segmenting	*	*	*	*	*
Syllables: types and patterns for division	*	*	*	*	*
Morphology: basewords, roots, affixes	*	*	*	*	*
Syntax: grammar, sentence variation, mechanics of language.	*	*	*	*	*
Semantics: meaning					

PHONOLOGICAL AWARENESS

- Rhyming
- Identifying words that begin or end with the same sound
- Identifying sounds in various positions in words
- Manipulating sounds in a word (such as saying the word without the first or last sound)
- Ability to segment sentences into component words
- Ability to segment words into component syllables
- Ability to segment words into component sounds
- Ability to blend phonemes into words



Alphabetic Phonics
 DuBard Association Method®
 Orton-Gillingham
 Shelton SEE Program

Slingerland
 Spalding
 and many others

www.eida.org

Deficient development of phonological awareness is a critical diagnostic sign of dyslexia for two reasons:

1. When compared to typical readers, children with dyslexia are consistently more impaired in phonological awareness than any other single ability.
2. Measures of phonological awareness administered in kindergarten strongly predict rate of growth in word reading ability, which is the reading skill that is most problematic for children with dyslexia.

PHONEMIC AWARENESS

•Phonemic awareness is the ability to analyze the sound structure of the language at the level of the individual speech sound.

Segmenting

Blending



= /k/ + /-a-/ + /t/

/k/ + /-a-/ + /t/ =



Spelling Analyzation

Word Number of letters Number of sounds Write in two colors

fish
swam
shelf
shop
mast
flag

PHONICS

•Phonics is the knowledge of how the sounds of the language (phonemes) are represented in print and the patterns of letters are used to represent these sounds (graphemes).

/k/ + /-a-/ + /t/ = cat



SOUND-SYMBOL ASSOCIATION

Sound-symbol association is also known as orthographic knowledge or the alphabetic principal.



Incorporating Phonological Awareness,
Phonemic Awareness, and Phonics

Second Grade Spelling Analyzation

light	try
sight	lie
mood	stay
cry	wait
tie	boot
high	pray

SYLLABLE IDENTIFICATION

SYLLABLE DIVISION

MORPHOLOGY

- Prefixes and suffixes
- Greek and Latin combining forms

DuBard Association Method®

- Phonetic
- Multisensory
- Orton-Gillingham-based in content and principles of instruction
- Systematic and cumulative
- Linguistic
- Strong emphasis on auditory training
- Orthographic support for all levels of instruction

DuBard Association Method®

- Originally developed by the late Mildred McGinnis, teacher of students who were deaf or hard of hearing, Central Institute for the Deaf, St. Louis, MS
- Used by the DuBard School for Language Disorders at The University of Southern Mississippi since 1962



Multisensory Instruction

- In the DuBard Association Method®, “**multisensory**” refers to the auditory, visual, tactile, and motor-kinesthetic cues of the speech sounds of the language.



DuBard Association Method®

- Accredited by IMSLEC at the Teaching, Instructor of Teaching, Therapy, and Instructor of Therapy levels (one of the first 4 accredited programs in the nation; first accredited program in MS)
- Accredited by the International Dyslexia Association for meeting the *Knowledge and Practice Standards for Teachers of Reading*



DuBard Association Method®

Benefits students with severe language-speech disorders, hearing impairments, learning disabilities, dyslexia, autism spectrum disorders, and other issues

May be used with students in general education to establish a code-breaking system for reading skills

DuBard Association Method®

For a student to make the most progress, the intensity of intervention must correspond to the severity of the disability.

Regardless of age, begin at the phoneme level.



Use of Northampton Symbols

Northampton symbols are organized into primary and secondary spellings.

Primary spellings are those which are most frequently found in written English.

The symbols are highly correlated to written English.

Yale, C.A., (1946). *Formation and development of elementary English sounds*. The Clark School for the Deaf: Northampton, MA.

DuBard Association Method®

- Therapy techniques have built-in strategies to improve memory used at every level of instruction—from single phonemes through story levels
- Intensive auditory training for all students to strengthen auditory input from language
- Specific instruction on language structures and related question language to aid in comprehension

f	a_e
ph	ai
	ay
ch	oi
tch	oy

Distinctive Features

No program to buy or sell

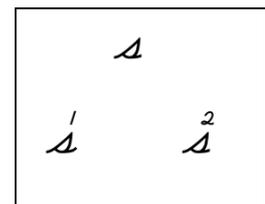
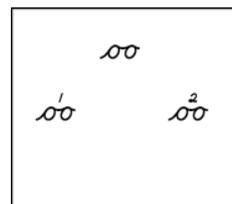
The effectiveness of the method depends on the extensive professional preparation and skill of the professional implementing the method.

Program is cost effective to implement with students.

Training is the largest expense.

Cost of materials needed is relatively small.

1's and 2's are used to differentiate between sounds that are written the same but said differently.



Precise articulation required from the beginning

Students use the kinesthetic feedback from speech production to increase memory and learning.



Teaching of phonemes progresses to syllables, words of gradually increasing length, sentences/questions, stories/questions.

Individual student's book made as he/she progresses through the method.

A slower rate of speech is used so that a student has more processing time and is given a better model for articulation.

Cursive Script

Cursive script is used in the pure form of the DuBard Association Method®.

Manuscript may be taught as a modification.

Cursive script -

- More visual differences in cursive writing vs. manuscript
- Letters in syllables and words are connected so are seen as units
- Easier to write



Instruction in phonetic rules is delayed until upper levels of the DuBard Association Method®

This allows students to learn to talk, listen, read, write, and spell without the added burden of memory for rules.

- Capitalization, including letter names
- Spelling rules
- Rules for punctuation



Color Differentiation

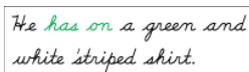
- Initially, color is used as an attention-getter.



- Later it is used to highlight the number of phonemes in a syllable or word.

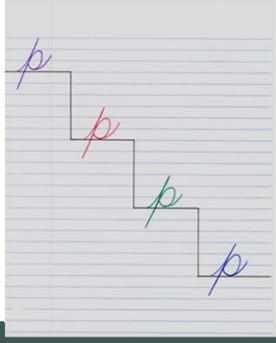


- Then color is used to highlight verbs and new concepts.



Levels of Instruction in the DuBard Association Method®

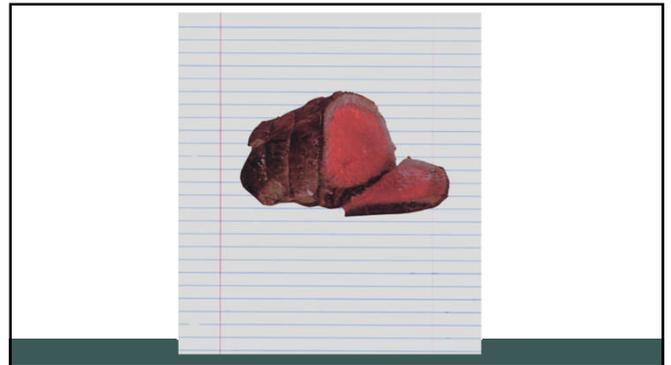
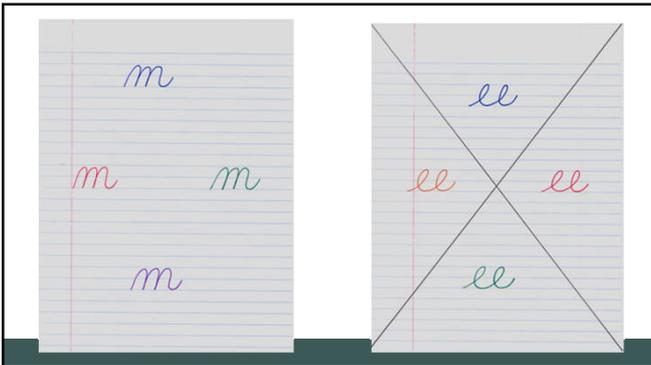
Phonemes



Drop Drills

Focus on combining phonemes for speech/ two graphemes for reading

Associates written language with an object in the environment



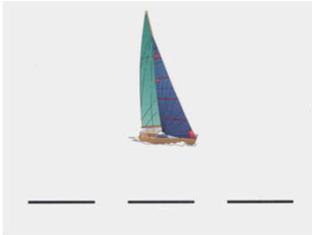
Reinforcement Activities

- Writing practice
- Oral recall
- Written recall
- Dictation (spelling practice)
- Review in structure
- Memory games

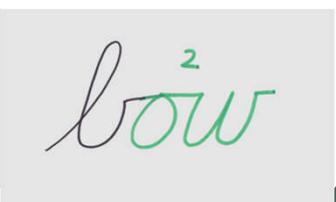
Cross Drills

- Teach vocabulary
- Decode primary and secondary spellings
- Top to bottom and left to right orientation for reading
- Sequencing for speech and reading
- Increase memory

bi_e *by* *bigh²*
bo_e *boa* *bow²*
bu_ *bu_* *bu_*
ba_e *bai* *bay*
 bow²


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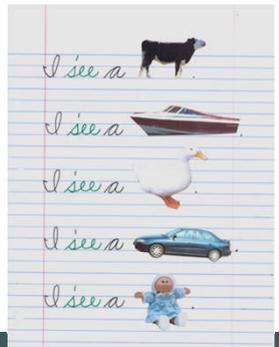


 _ _


bit *by¹t* *by¹t*
bat *bat* *bat*
bet *beat²* *beat²*
but *but* *but*
 bet *bit* *bat* *but*

bo_et *boat* *bow²t*
be_et *beat¹* *beat¹*
bi_et *bigh²t* *by²t*
bo²t *bu²t* *bu²t*
 boat

Repetitive Sentences and Questions
 Focus on verb usage and question language
 Increase memory for longer sequences of language



what do you see?

I see a 

I see a 

I see a 

I see a 

I see a 

what is this?

does a cow have a nose?

how many eyes does a cow have?

how many legs does a cow have?

does a cow have a tail?



this is a cow.

a cow has a nose.

a cow has two eyes.

a cow has four legs.

a cow has a tail.

how many boats is this?

how many cars do you see?

how many dogs does john have?

how many apples did you see?

how many shirts do you have?

how many bells do you want?

this is one boat.

I see three cars.

john has five dogs.

I saw one apple.

I have two shirts.

I want four bells.

what is this?

how many eyes does a pig have?

does a pig have a snout?

how many feet does a pig have?

what kind of tail does a pig have?

can a pig walk?

can a pig fly?

what is a pig covered with?



this is a pig.

a pig has two eyes.

a pig has a snout.

a pig has four feet.

a pig has a curly tail.

a pig can walk.

a pig cannot fly.

a pig is covered with hair.

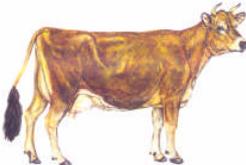
Animal Stories and Questions

Focus on expanding sentence and question complexity

Increase memory for sequencing

Increase vocabulary

Generate language



Inanimate Object Stories and Questions

Focus on the indefinite pronoun "it"

Increase vocabulary

Generate language



<p>what is this?</p> <p>does it have a face?</p> <p>what kind of hand does it have?</p> <p>what kind of hand does it have?</p> <p>does it have numbers?</p>	 <p>this is a clock.</p> <p>yes, it has a face.</p> <p>it has a long hand.</p> <p>it has a short hand.</p> <p>yes, it has numbers.</p>
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<p>who is this?</p> <p>what is he?</p> <p>what color hair does he have?</p> <p>what color eyes does he have?</p>	 <p>this is Brad.</p> <p>he is a boy.</p> <p>he has brown hair.</p> <p>he has blue eyes.</p>
<p>who is this?</p> <p>what is he?</p> <p>what color is his hair?</p> <p>what color are his eyes?</p>	<p>this is Brad.</p> <p>he is a boy.</p> <p>his hair is brown.</p> <p>his eyes are blue.</p>

Personal Stories and Questions

- Focus on personal pronouns
- Introduce clothing vocabulary, patterns
- Increase sentence length and complexity
- Generate language

<p>who is this?</p> <p>what is she?</p> <p>what color eyes does she have?</p> <p>what color hair does she have?</p>	 <p>this is Anni.</p> <p>she is a lady.</p> <p>she has blue eyes.</p> <p>she has blond hair.</p>
<p>who is this?</p> <p>what is she?</p> <p>what color are her eyes?</p> <p>what color is her hair?</p>	<p>this is Anni.</p> <p>she is a lady.</p> <p>her eyes are blue.</p> <p>her hair is blond.</p>

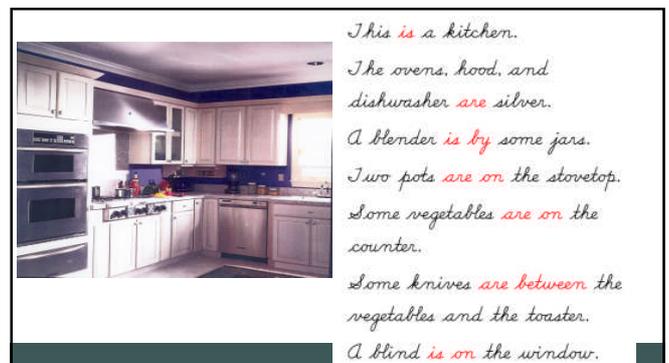
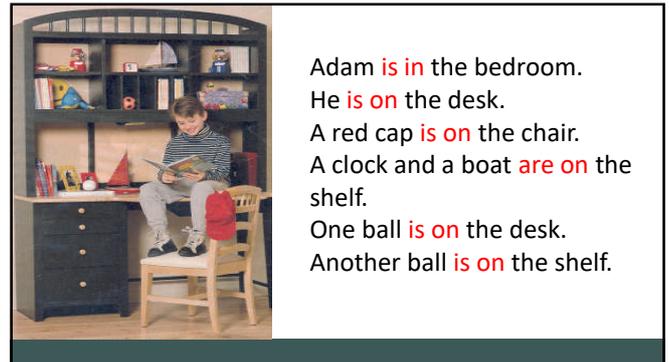
<p>who are you?</p> <p>what are you?</p> <p>what color hair do you have?</p> <p>what color eyes do you have?</p>	 <p>I am Liz.</p> <p>I am a girl.</p> <p>I have black hair.</p> <p>I have brown eyes.</p>
<p>what is your name?</p> <p>what are you?</p> <p>what color is your hair?</p> <p>what color are your eyes?</p>	<p>my name is Liz.</p> <p>I am a girl.</p> <p>my hair is black.</p> <p>my eyes are brown.</p>

	<p>this is Sam.</p> <p>he is a man.</p> <p>he has on a dark brown shirt.</p> <p>it has buttons.</p> <p>he has on a brown corduroy jacket.</p> <p>it has long sleeves.</p> <p>it has two pockets.</p> <p>he has on light blue jeans.</p> <p>they have a zipper.</p>
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Preposition Sentences and Stories/Questions

Focus on placement
 Focus on the "where" question
 Introduce multiple questions
 Generate language



Verb Sentences and Stories/Questions

- Increase sentence length and complexity
- Teach different verb tenses
- Apply multiple questions
- Generate language



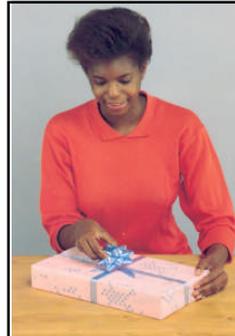
What *did* the chicks *do*?
The chicks *hatched*.

What *is* the girl *doing*?
The girl *is drinking*.



Barb *wrapped* the present.

What *did* Barb *do*?
What *did* Barb *wrap*?
Who *wrapped* the present?

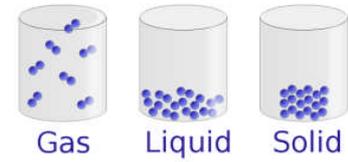


What *is* James *doing*?
James *is lifting* a box.



Grandfather and the children wanted some apples.
 First, Grandfather stood on a ladder.
 Next, he put some apples in the little basket.
 Jane and Sally put some apples in the big basket.
 Tom picked some apples, too.
 Later, Grandfather put some more apples in the big basket.
 Finally, Grandfather peeled an apple.
 Sally put the peeling around her neck.
 She looked very funny.
 The family had a fun day at the orchard.

Nonfiction Stories



Imagination Stories

Increase sentence length and complexity
 Apply advanced language concepts
 Include discourse
 Generate language

Everything in the world is made up of matter.
 Matter is anything that takes up space. There are three
 main groups, or states, of matter: solids, liquids, and
 gases.

Every solid has a shape all its own and is usually hard.
 Solids are things like bicycles, cars, baseballs, and desks.
 Energy must be used to change the shape of a solid.

There are many kinds of liquids. Liquids can be thick
 like honey or thin like water. A liquid takes on the shape
 of its container.

Gases float around and spread out to fill empty
 space. Gases are invisible. Air, helium, and carbon
 dioxide are gases.



Bobby and Julie spent a week at Grandma's house. One rainy afternoon, they were sad because they couldn't play outside. Grandma wanted to cheer them up and said, "I have a surprise for you." She took Bobby and Julie upstairs to the attic.

In the attic, Grandma showed them a big trunk. Inside the trunk were clothes that Grandma and Grandpa used to wear. Bobby and Julie had fun dressing in the old clothes all afternoon. They put on their favorite outfits to show Grandma. Grandma laughed when she saw the children in the old clothes and took a picture to send to their mother. They enjoyed the fun rainy day.

Efficacy of Instruction

Data from AIMSweb®

AIMSweb® is a curriculum-based benchmark and progress monitoring system administered to new students each fall and throughout the first year of school.

Students have an average of 5+ diagnoses.

Data are compared to national normed results.

Efficacy of Instruction

Data from MKAS

MKAS is the Mississippi Kindergarten Readiness Assessment given to Pre-K and Kindergarten students.

Students have an average of 5+ diagnoses.

Pre- and post-test data are compared.

Efficacy of Instruction

Qualitative Data

Parents of current and former students were interviewed to determine changes in their children following phonetic, multisensory intervention through the DuBard Association Method®.

For more information:

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