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READING DEVELOPMENTAL SKILLS.

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DEVELOPMENTAL SKILLS IMPORTANT TO READING READINESS ARE PRESENTED WITH SUGGESTIONS TO HELP TEACHERS OFFER EXPERIENCES FOR EACH CHILD ON THE BASIS OF HIS LEVEL OF SUCCESSFUL PERFORMANCE. SUGGESTIONS FOR TEACHER OBSERVATION AND EVALUATION OF THE CHILD'S LEVEL OF VISUAL, MOTOR, SPEECH, AND LANGUAGE SKILLS AND PLANS AND SUGGESTIONS FOR DEVELOPMENTAL EXPERIENCES AND ACTIVITIES FOR STRENGTHENING THESE SKILLS NECESSARY FOR SUCCESSFUL READING ACCOMPLISHMENT ARE PROVIDED. A LIST OF RESOURCE ADVISERS IN THE SOUTHWEST AREA IS INCLUDED. A BIBLIOGRAPHY IS GIVEN. (MC)

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READING DEVELOPMENTAL SKILLS

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DEVELOPMENTAL SKILLS IMPORTANT TO READING READINESS

Children do not grow at the same rate; consequently, teachers must be ready, at all times, to offer each child the developmental experiences he needs in preparation for his "next step," regardless of his age or grade group. If a child is required to do a task for which he is not ready, he is required to fail. Many children have failed in reading because they were not ready to begin to read. Therefore, it is important to determine for each child his level of successful performance in all of the developmental skills. He must begin where he can succeed.

Part One of this bulletin provides suggestions which may help teachers observe and evaluate the child's level of development in the areas of visual, motor, speech and language skills.

On the basis of needs evidenced, it is possible to plan developmental experiences which will strengthen the skills important to reading. The experiences and activities suggested in Part Two of this bulletin are but a few of many which might be used.

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PART ONE

ASSESSING SKILLS IMPORTANT TO READING READINESS

INTRODUCTION

"School problems are often symptoms of a lack of early integration of visual, motor, speech and language skills."

Success Through Play

D. H. Radler and Dr. Newell C. Kephart

Teachers in primary grades have been deeply concerned with the development of pre-reading activities which will help children achieve success in beginning reading. Most teachers have been aware of the general factors in reading readiness, such as the physiological, the social-emotional and the mental. However, many educators have been interested in specific skills necessary for success in reading and ways to develop these skills.

Because of their keen interest in the analysis of these specific skills, a group of teachers, supervisors, and consultants gathered materials from several sources and wrote this detailed bulletin (with bibliography) in two parts:

- I. Assessing Skills Important to Reading Readiness
- II. Suggested Experiences to Strengthen Skills Important to Reading Readiness

The check list of skills includes specific items in categories such as motor development, visual perception, visual discrimination, visual memory, language usage, auditory discrimination and auditory memory.

CHECK LIST OF SKILLS IMPORTANT TO READING READINESS

The Check List which is included here provides a means of making a rough estimate of the individual child's strengths and weaknesses in the area of some of the skills important to reading readiness. From this diagnosis it is possible to plan learning experiences, beginning with the present level of the child's success, which will increase the skills he needs for reading. Many of these skills may be observed informally in group situations.

SKILL	POOR	FAIR	GOOD
1. <u>Motor Development</u> (Large and small muscle)			
. Can the child hop? _____			
. Can he skip? _____			
. Can he jump with both feet off ground? _____			
. Can he catch a ball? _____			
. Can he throw a ball with one hand directly at target? _____			
. Can he walk on a straight line without losing balance? _____			
. Can he walk up and down steps without holding on? _____			
. Can he tie shoes, cut with scissors, use a pencil? _____			
2. <u>Ability to Determine Right and Left</u>			
3. <u>Identification of Body Parts</u>			
4. <u>Visual Perception</u>			
. Hand - Eye Coordination _____			
. Perception of Space _____			
. Figure - Ground Perception _____			
5. <u>Visual Discrimination</u>			
6. <u>Visual Memory</u>			
7. <u>Language Usage</u>			
. Articulation - Which sounds cause the child difficulty? _____			
. Ability to verbalize picture content _____			
. Ability to understand verbal directions _____			
. Ability to interpret relationships between ideas which are presented verbally _____			
. Ability to interpret relationships between ideas which are presented visually _____			
. Problem solving _____			
. Ability to repeat sentences _____			
. Ability to understand simple statements _____			
8. <u>Auditory Discrimination</u>			
9. <u>Auditory Memory</u>			
10. <u>Ability to Put Events in Logical Sequence</u>			

These items are adapted from: The Haring Kindergarten Screening Test developed by Dr. Norris G. Haring, Associate Professor of Education, University of Maryland; the Motor Skills Tests developed by Newell C. Kephart in his book, The Slow Learner in the Classroom; and the Los Angeles City Schools Curriculum Publication #479, Speech in the Elementary School.

1. Motor Development.

"There is evidence that the efficiency of the higher thought processes can be no better than the basic motor abilities upon which they are based."

D. H. Radler and Newell C. Kephart
Success through Play

"In early childhood, mental and physical activities are closely related; consequently, motor activities play a major role in intellectual development-- Higher forms of behavior develop out of and have their roots in motor learning."

A. T. Jersild
Child Psychology

What is the Child's Level of Motor Development? (Large muscle and fine muscle)

- . Can the child hop? On left foot? On right foot? Is he clumsy?
- . Can he skip?
- . Can he jump rope with both feet off the ground?
- . Can he throw a ball with one hand directly at the target?
- . Can he catch a gently tossed ball?
- . Use the lines of an outdoor game area. Can the child stay on the line as he walks on it? Is it difficult for him to keep his balance?
- . Can the child walk up and down steps without holding on the railing?
- . Can he tie shoes, cut with scissors, use a pencil?

2. Ability to Determine Right and Left.

"Knowing position-----from within one's self is the first step in recognizing the position of objects which make up one's environment. This knowledge is important to a child's sense of reality and of security. ----He must know that his left and right are always in reference to himself - - then proceed to other objects that have their own rights and lefts according to the direction they face."

Marie Avery and Alice Higgins
Help Your Child Learn How To Learn

"The development of laterality is extremely important since it permits us to keep things straight in the world around us. The only difference between b and d is one of laterality. If there is no left and right inside the organism the directional characteristics of b and d disappear."

Newell C. Kephart
The Slow Learner in the Classroom

The following exercises should give a clue as to which children are having difficulty in distinguishing right from left.

- Ask the child to follow these directions:
 - "Show me your right hand"
 - "Show me your right foot"
 - "Show me your left hand"
 - "Raise your left hand"
 - "Stamp your left foot"
 - "Shake your right hand"
- Face the child and say
 - "Show me my right hand"
 - "Show me my left hand"
 - "Touch your right knee with your right hand"
 - "Touch your right knee with your left hand"

The following exercise should help the teacher discover which children have not developed the habit of left to right progression:

- Make up a large card with several rows of pictures (newspaper "funnies" or rows of small pictures)
- Ask the child to name the pictures, noting the order he uses.
- Place ten blocks in a row. Ask the child to count them, noting whether he goes from left to right or from right to left.

3. Identification of Body Parts

The child first determines the shape and limits of the world within his own person and then relates this learning to the forms of the world around him. It is important that he have an accurate body concept. (Kephart)

Can the Child Identify Body Parts?

- "Draw a Person"
 - Ask the child to draw "the very best" person he can. Note incorrect concepts such as arms and legs attached to head, etc.
- Ask the child to identify body parts
 - "Touch your shoulder"
 - "Touch your ankles"
 - "Touch your feet"
 - "Touch your ears"
 - "Touch your eyes"
 - "Touch your nose"
 - "Touch your mouth"
 - "Touch your head"
 - "Touch your elbows"
- Use a picture of a person. Ask the child to show
 - the head
 - the neck
 - the arms
 - the fingers
 - etc.

4. Visual Perception

"Reading readiness skills have been shown lately to be complex clusters of more basic abilities: the ability to locate objects in space, for instance, and the ability to "track" a line of type from left to right."

D. H. Radler and Newell C. Kephart
Success Through Play

Visual perceptual skills involve the ability of the child not only to see but to understand the world around him.

A child who has a lag in his perceptual development may have such difficulty in recognizing objects and their relationships to each other in space that it causes him to perceive the world in a distorted fashion. Such a child is likely to be clumsy and poorly coordinated in his performance. The confusion with which he perceives visual symbols makes academic learning difficult no matter how intelligent he is. This causes the child to become angry, ashamed, and confused because he cannot do what teachers and parents expect of him. (Frostig)

Hand-eye coordination, the ability to sense spatial relationships and the ability to focus on one stimulus in the midst of many stimuli are some of the important aspects of visual perception.

Hand - Eye Coordination

- Ask the child to draw geometric forms -

- Show a circle - "Draw one that looks like this"
- Show a square - "Draw one that looks like this"
- Show a triangle - "Draw one that looks like this"

The manner in which the forms are produced is more important than the production.

Note tremors, rotation of designs, and segmenting of the forms. Observe whether or not the child completes the form as a whole, or one line at a time.

- Ask the child to string six large primary beads. Provide a string with a long tip and a knot in one end.
- Ask the child to use scissors and cut a square out of paper 9 x 9". Demonstrate first.
- Ask the child to draw a straight line between two dots.
- Show these letters: V P D E M L
Ask the child to copy each letter on the chalkboard:
"Draw one that looks like this."

Spatial Relationships - The ability to differentiate letters that have the same form but differ in position, b and d, depends on the perception of spatial relationships.

- Use 2 pegboards (or celotex acoustical square tiles with about 12 holes across and 12 holes down and golf tees)

- The teacher makes a simple design on one square board and asks the child to duplicate the design on his board.
- Note any tendency to reverse or turn the pattern.
- Use 3 small toy cars: red, blue, green.
Give specific directions:
 - "Put the red car beside the blue car."
 - "Put the green car behind the red car."
 - "Lift the green car over the red car and put it in front of the red car."
 - "Move the blue car forward."
 - "Move the red car backward."
 - "Pick up the red car in your right hand."
 - "Pick up the blue car in your left hand."

Figure - Ground Perception - The ability to distinguish figure from ground is necessary for the analysis and synthesis of words, phrases and paragraphs.

Can the child fix his attention on one stimulus?

Is he disturbed by background material?

- Ask the child to find all the same beads in a box of assorted beads.
- Superimpose the outline of a house upon the outline of a tree.
Ask the child to outline the tree with a crayon.
- Superimpose the outline of a triangle upon the outline of a square.
Ask the child to outline the triangle with a crayon.

5. Visual Discrimination

"One of the specific and most clearly reading-related aspects of development in pre-reading instruction is that of visual discrimination. This includes the ability to notice slight differences in form, line, size, etc., and to recognize when things look just alike."

Getting Ready to Read by Dorothy Koehring, Ph. D.
An Educational Service Publication
State College of Iowa, Cedar Falls

Can the child see likenesses and differences?

- Ask the child to match geometric forms.
A large card with many geometric forms drawn on it is given to the child.
Matching forms are drawn on individual cards.
(Circle, square, triangle, diamond, rectangle)
Hold up 1 card (i.e., circle)
Ask the child to match it on the large card:
"Find the one that looks like this one."
Use all of the individual cards this way.

- Sort buttons (assorted in a box).
Ask the child to find all the buttons which are the same and place them in individual boxes.
- Sort colors - use assorted color discs.
Ask the child to sort these into piles of colors which are the same.
- Ask the child to match letters.
Write these letters 2" tall on a large card:

d	p	b
F	E	D
P	B	C

Make individual letters 2" tall on individual cards.
Hold up one card. Ask the child to match it on the large card.
Say: "Find the one that looks like this one."

Note observable behaviors which may indicate impairment in vision. See Visual Discrimination in Part Two.

6. Visual Memory

Can the child remember what he sees?

- Show three objects. Cover one.
Ask "Which one did I hide?"

Show four objects. Cover one.
Ask "Which one did I hide?"

Same for five objects.
- Show the child a picture.
Remove it and ask him to tell all he remembers about the picture.
- Show a circle, square, triangle, one at a time.
Allow the child "to look" for 5 seconds. Remove the geometric form and ask child to draw it from memory.

7. Language Usage

A speech test with pictures is included in Speech in the Elementary School
L. A. City School Districts
Publication No. 479

It is designed to reveal the child's articulation of simple consonants and vowels through the naming of certain pictures.

- A scale for evaluating a child's language ability in interpreting pictures is presented by Marion Monroe in her study of Necessary Pre-school Experiences for Comprehending Reading:

- Select pictures in which two or more characters are involved in an interesting activity.
- Ask the child "What is this picture about?"
- Record the child's verbal response and determine the level of the step on which he responds:

Step 1. The child shrugs and doesn't respond verbally to the question. He may name objects in the picture, i.e., "dog," "boy," etc.

Step 2. The child describes action, i.e., "The dog is jumping up," "The baby is eating."

Step 3. The child verbalizes a relationship between characters or objects, i.e., "The boy's playing ball with the dog."

Step 4. The child gives relationships of time, place, cause, and effect, i.e., "The boys are building a bird house. They will put it in a tree so a bird can build a nest in it."

Step 5. The child perceives and responds to feelings and emotional reactions of the characters and draws a conclusion, i.e., "It's a dark night and the children are scared. They're singing songs around the fire. Wild animals won't come near the fire."

Children who have not reached Step 3 or Step 4 on this scale probably lack sufficient language ability to interpret a picture in a primer and respond to the text. They need many experiences which will develop verbal skills.

- A rough assessment of language ability may be secured from these items:

- Ask the child to say "yes" if the statement is true, "no" if not true.
 - Roses walk.
 - Dogs bark.
 - Houses run.
 - Cows give milk.
 - Houses are to live in.
 - Chairs are to eat.
- Understanding verbal directions:
 - "Touch the table and your shoe."
 - "Touch your knee with your right hand."

- Auditory association of ideas:
 - Classify objects verbally:
"Name all the animals you can."
 - Concepts of same and different:
"How are a pig and a cow alike?"
- Visual association of ideas:
 - Classify pictures into categories such as farm animals, machinery, plants.
 - Child is shown two pictures and asked how they are alike and how different, i.e., car and truck; table and chair, etc.
- Problem solving
 - "If you couldn't find your sweater, how would you go about finding it?"
- Ask the child to repeat several simple sentences.
 - Does he omit or add words?
 - Does he change the order of the words in the sentence?

9. Auditory Discrimination

"Poor auditory discrimination is prevalent among poor readers. Unless a child can hear the difference between two spoken words he cannot learn to associate each of them consistently with the printed symbol. This skill can be improved by listening."

Effective Reading
Albert J. Harris

Children who have difficulty hearing similarities and differences in words are likely to have difficulty using phonetic skills in reading. They may profit from a strengthened visual approach to learning while auditory perception skills are developing.

• Can the Child Hear Likenesses and Differences?

- Ring two bells as the child listens and watches.
Blindfold the child.
Ring one of the bells.
Ask "Which bell did you hear?"
- Ring two bells or listen to two notes on the piano.
Say to the child, "Say 'yes' if they sound the same."
"Say 'no' if they sound different."
- Say pairs of words to the child.
Say to the child, "Say 'yes' if the words sound the same."
"Say 'no' if the words sound different."
i.e., jam - jack jump - jug pig - pit big - big
cat - catch lip - log let - ladder bump - sun
his - his him - hen pin - pen back - bed
red - rest Micky - Nicky pan - pan but - hen

- Note observable behaviors which may indicate hearing impairment.

See Auditory Discrimination in Part Two.

10. Auditory Memory

"Research shows that auditory memory is the most important factor in reading. It differentiates good readers from poor readers. Extensive listening activities should be provided for those children who need to develop auditory memory skills."
(Barbara Bateman, C.E.C. Convention, Portland, 1965)

• Can the Child Remember What He Hears?

- Say numbers - ask child to repeat from rote memory,
i.e., 82
587
4857

- Give the child a series of commands to remember and do in sequence:
i.e., - "Put the book on the table."
- "Bring me a pencil."
- "Sit on the chair."

- Clap 4 times.
Let child reproduce pattern, etc.

11. Ability to Put Events in Logical Sequence

- Tell the child a story.
Provide pictures and let child place them in logical order to retell story.
- Provide pictures of a child's day. Ask the child to place them in sequence.
i.e., - getting up in the morning
- getting dressed
- brushing teeth
- eating breakfast
- going to school
etc.

PART TWO

SUGGESTED EXPERIENCES TO STRENGTHEN SKILLS IMPORTANT TO READING READINESS

"...Reading development begins at birth. The preschool years are a prelude to reading instruction in the primary grades. On all levels, teachers handle reading problems as they arise; they keep in mind a sequential development of reading attitudes, interests, and skills from kindergarten to college."

Ruth Strang
Understanding and Helping
the Retarded Reader

These suggested experiences provide for many needs. Dr. Strang advises teachers to use them selectively to strengthen the specific skills children lack. A child does not profit from activities which develop skills he already possesses. It is as devastating to a child to keep him repeating what he does not need as it is detrimental to push him past the reinforcing activities he needs for his sequential development in reading.

1. Motor Development Activities for Home and School

The following motor activities are suggested in Perceptual-Motor Dysfunction in Children by A. Jean Ayres:

- Obstacle Courses involving jumping, hopping, walking, crawling, and climbing will encourage the development of motor skills.
- Jump rope and hop scotch help to develop large muscle coordination.
- Group games may be used to improve motor skills and laterality:
 - "Looby-Loo"
 - "Simon Says"
 - Group circle game passing a ball from one child to another in a variety of ways, such as behind one leg, etc.
 - Relay races with sandbags added to hands or feet.
- Body stunts develop motor control:
 - Rabbit hop
 - Duck walk
 - Elephant walk
 - Etc.
- Ball games train the eyes to work with the hands. Remind the children that the eyes help the hands, and that the balls go where the eyes are looking.
- Finer motor development may be achieved through hand or finger puppets, cutting with scissors, manipulating clay, etc.

Other motor activities suggested by Frostig, Radler, and Kephart include:

• Balancing exercises

- Stand on tiptoe on both legs for ten seconds - later do this with eyes closed.
- Stand on tiptoe on one leg at a time for ten seconds. Later do this with eyes closed.
- Stand on one foot. Raise the other leg to the front, to the side, to the rear.
- Use balance board and walking board activities to develop further motor control through balance practice. Maintaining balance on board requires knowledge of the right side of the body vs. the left side. The walking board aids in the development of directionality through experiences of right and left in maintaining balance and experiences of backward and forward in progress across the board.

• Gross motor coordination exercises

- "Angels in the Snow"

Child lies flat on his back on a mat, arms at sides, feet together.
Say: "Move feet apart, knees stiff and then bring back together, clicking heels."

Then say: "Move arms along floor until hands meet above head, keeping elbows stiff. Slap hands when arms are brought back down to sides."

Later: "Combine leg and arm movements."

Child stands and does the above exercise, bring hands over head when feet jump apart, etc.

- Hopping exercises, using one foot, then both feet.

"Hop on one foot."

"Hop on both feet." (with eyes open and with eyes closed)

- Walk sideways - arms folded in front. Do this both by crossing legs and by not crossing legs.

2. Activities to Develop the Ability to Determine Left and Right

• Exercises which may help child learn right and left (Avery)

- Trace child's right hand on paper.

Draw on fingernails.

"This is your right hand."

Do the same with the left hand.

Ask - "Are these pictures of the back or the palms of your hands?"

- Match and see

Give child simple sequence to follow in matching:

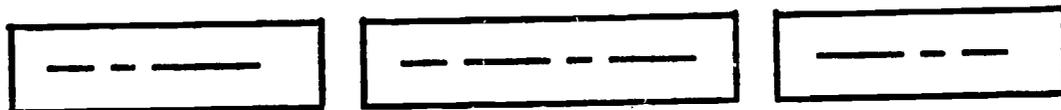
"Left hand, right hand, left hand, right hand."

Increase difficulty when child is comfortable in knowing his left and right hand:

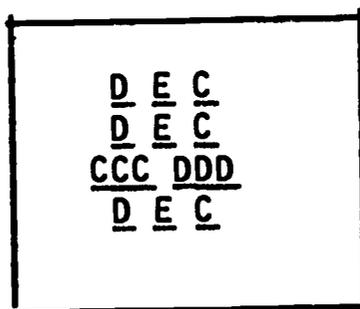
"Left, left, right, left," etc.

- Make another pair of hands, with palms up - no fingernails. Have child face you and match his hands to yours so he will understand how the left and right can be on different sides depending upon which way a person is facing.
 - Discover left and right side of face. Say to the child, "Point to your nose. It is in the middle of your face. Can you tell what is on the left side of your face?" (Let child discover left ear, left eye.) "Everything on the left of your nose is on the left side." Do the same with right side of face. Say, "Point to your right eye, your left ear," etc.
 - Ask child to name some objects on his left, then on his right. Have him turn around and do the same thing.
 - Do the same exercises with feet.
- The music center provides an opportunity to "read" blank notation from left to right:

- Use large cards, about 3" x 9" with blank notation, indicating beat patterns. Drums, sticks, tambourines, etc., may be used to beat out the rhythms indicated, i.e.:



- Print phrases from familiar songs on cards. Use a picture to identify the song. Encourage the child to play it on the song bells:



This experience provides a need for letters and reinforces left-to-right progression.

- Games help develop right and left concepts, i.e.,

"Simon Says" -

- "Touch your right foot."
- "Touch your left ear."
- "Touch your right knee."
- "Put your right hand on your left ear."
- "Stand on the right side of your chair."
- Etc.

- Pictures of stories in sequence encourage the child to read left to right as he retells the story.

3. Exercises to Improve Child's Awareness of Parts of the Body

These suggestions are adapted from -

The Slow Learner in the Classroom by Newell C. Kephart, and

The Frostig Program for Development of Visual Perception by Marianne Frostig and David Horne

• Present directions to follow when sitting and standing:

- move legs
- move arms
- move fingers
- move toes
- move head
- move hands

• Assemble human figure on flannelboard:

- put part by part on flannelboard (i.e., trunk, neck, head, arms, legs) to build complete figure.
- ask children to touch their heads, arms, legs, etc., as the flannel part is placed on flannelboard.
- let children assemble cutout parts of body on flannelboard (trunk, head, neck, arms, legs). They may touch these parts on themselves as they assemble the body on the flannelboard.

• Duplicate body positions through pictures:

- Use pictures of children in varied poses and let children adopt poses.

• Develop directional body movements through chalkboard exercises:

- Each child stands in front of a chalkboard with a piece of chalk.
 - "Draw a line up."
 - "Draw a line down."
 - "Draw a line out" (away from body to side).

4. Exercises to Develop Visual Perception

To Improve Eye-Hand Coordination

Studies show that poor readers do not do as well in eye-hand coordination activities as normal readers do.

- Newell C. Kephart in The Slow Learner in the Classroom suggests these specific activities to develop hand-eye coordination through cutting:

Cutting helps develop the child's ability to coordinate eyes and hands more effectively.

- Cut on a heavy black straight line. Use light cardboard or heavy construction paper to avoid the frustration of easy tearing.
 - Cut geometric figures outlined with heavy straight lines, such as a square, rectangle, triangle.
 - Cut out very simple pictures outlined with a heavy line.
 - Cut on heavy curved lines and circles.
 - Cut fringe on place-mats. Cut Chinese lanterns. Fold and cut "surprise cuttings."
 - Use blunt scissors to cut plasticine modeling clay. Shape clay into a long roll. Cut into many pieces.
- . Albert J. Harris in How to Increase Reading Ability suggests these activities to develop eye-hand coordination.
- Manipulative toys:
 - peg boards
 - form boards
 - jigsaw puzzles
 - Varied handwork materials:
 - pasting
 - painting
 - clay
 - cutting
 - coloring
 - wood construction
- . These activities will help to coordinate the sensory channels and to develop small muscle control.
- Allow children to touch articles such as sandpaper, cotton, a stone, a smooth mirror, a piece of velvet, etc.
Ask: "What else is hard?"
"What else is smooth?" (soft, rough)
 - Use nuts and bolts: screw on nuts and screw them off again.
(Use plastic bottles and screw tops.)
- . Visual motor coordination will be strengthened through these eye-hand activities:
- Catch and throw beanbags.
 - Roll and catch a hoop.

To Improve Spatial Relationships

Position in Space

- . Give each child a red block and green block and ask him to follow directions:
- "Put the green block in front of the red block."
 - "Put the red block on top of the green block."
 - "Put the green block behind the red block."
 - "Put the red block beside the green block."
 - "Put the green block under the red block."
- (Colored marbles on marble board may be used in a like manner.)

- Ask the child to duplicate many designs on pegboards, beginning with simple designs which he can make successfully. Note reversals and turns as child copies designs involving spatial relationships.
- Ask child to follow directions involving position in space:
 - "John, stand in back of Mary."
 - "Jane, stand beside your desk."
 - "Mary, stand in front of Jane." etc.
- Ask the child to follow directions involving the relationship of the body to other objects:
 - "Stand in the circle."
 - "Step out of the circle."
 - "Stand in a box."
 - "Step out of the box."
 - "Crawl under a table."
 - "Jump over a block."
 - "Climb on a chair."
 - "Go around a table."
 - "Put your hand in front of the box."

To Develop Figure-Ground Perception

Children who are disturbed by varied stimuli in background material need practice in fixing their attention on one stimulus. This activity must begin simply and gradually develop in complexity.

- Can the child find designated objects within varied background materials?
Ask him to:
 - Find all the red things in the room.
 - Find all the living things in the room.
 - Cut many geometric forms in many colors. Ask the child to sort all the red triangles, blue triangles, red circles, blue circles, etc.
 - Find all the white beans in a jar of assorted beans.
 - Draw the outlines of several geometric figures superimposed upon each other. Ask the child to outline each figure in a different color.
 - Look at a picture. Find the largest boy, the tallest tree, the green apple on the tree, etc.

5. Activities to Improve Visual Discrimination

- Can the child see likenesses and differences? These exercises may help:
 - Provide practice in matching exact colors, heights of children, widths of objects, etc.
 - Match blocks of equal size. Choose one block and find another just like it in size and shape.
 - Look at two abstract symbols very little different in shape and size and determine whether they are alike or different. Gradually compare symbols which are more and more similar.
 - Sort a variety of buttons into groups which are the same.
 - Sort marbles by size and color.
 - Match letters and numbers which are the same.

• Observable behaviors which may indicate vision problems:

- Restlessness, nervousness, irritability or other unaccounted for behavior.
- Seeing objects double.
- Headaches, dizziness or nausea associated with the use of eyes.
- *Body rigidity while looking at distant objects.
- Undue sensitivity to light.
- Crossed eyes-turning in or out.
- Red-rimmed, crusted or swollen lids.
- Frequent sties.
- Watering or bloodshot eyes.
- Burning or itching of eyes or eyelids.
- *Tilting head to one side.
- Tending to rub eyes.
- Closing or covering one eye.
- Frequent tripping or stumbling.
- Poor hand and eye coordination as manifested in poor baseball playing, catching and batting or similar activities.
- *Thrusting head forward.
- *Tension during close work.

Only a complete case study will determine whether inadequate vision is a significant factor in non-achievement.

*Found to be particularly significant in a recent study.

• Refer any child who seems to evidence visual difficulty for complete vision screening.

- Restrictions on visual function may relate to fixation, to focusing, or to interpreting what is seen and where things are seen, i.e., a five-year old should be able to track a moving target. If his eyes cannot hold on a target when it is moved, but dart ahead or lag behind, or lose contact, then he is in visual trouble.

Ilg and Ames - School Readiness

- A check on gross visual acuity:

Type pupil's first name on a tagboard card (type or print in primer-size letters).

Ask the child where he can see it most clearly -

- holding the card closer to the eyes than 14 inches
- holding the card further from the eyes than 14 inches
- holding the card about 14 inches from the eyes

If the child holds the card much closer or much further away from his eyes, this is a clue for referral.

6. To Improve Visual Memory

Visual memory is the ability to remember stimuli presented visually. These activities may provide for the motivation and reinforcement of visual memory:

- The child looks at a page in a picture dictionary or catalog and tries to recall as many pictures as he can.
- The child observes three or four objects on a table in a certain order. The objects are rearranged while the child's eyes are closed and he replaces them in the original order. (Gradually use more objects.)
- Show the child abstract forms and ask him to reproduce them from memory.
- Make a bead chain design; remove it and ask the children to reproduce it from memory.
- Place five or six objects on a table. Have the children look at the objects and then hide their eyes. Remove one object and ask the children which one is missing.
- A cumulative group game may develop visual memory:
 - the first child touches an object
 - the next child touches that object and one more
 - the next child touches both previous objects in order and one more
 - continue with each succeeding child touching all previous objects in order and adding one more.
- Visual memory is strengthened by the kinesthetic approach to reading. It is important to teach the kinesthetic method carefully to be certain it does develop visual memory and not copying. The vocal-motor part of the kinesthetic approach reinforces saying and doing at the same time.

7. To Improve Articulation and Language Usage

The publication No. 479 - Los Angeles City Schools, entitled Speech in the Elementary School, gives specific help for each sound, both in the technique of enunciation and reinforcing activities.

Articulation Activities:

- Provide many listening experiences:
 - records
 - stories read by teacher
 - nursery rhymes and finger plays - to listen to and recite
- Provide opportunities for the child to participate with the group in choric verse.
- Use paper bag and stick puppets to add interest to dramatizing nursery rhymes and stories.
- Encourage rhythmical activity.
- Speak slowly and distinctly to children. Promote relaxation (see relaxation activities listed in the Speech Guide).
- Encourage the child to take his time.
- Speech sounds causing difficulty may be presented in a group situation: i.e., if some children have difficulty pronouncing "r," the teacher might put several objects beginning with "r" on a table. The children are asked to name all the objects. Then one child might say, "I am thinking of something on this table." Another child might say, "Are you thinking of rabbit?" The first child responds, "Yes, I'm thinking of rabbit," or, "No, I'm not thinking of rabbit."
- Making a tape recording of the child's speech patterns and possible articulation problems and then letting him listen to his errors and the correct sounds in comparison with them is helpful.

Language Activities (Douglas Wiseman, A Classroom Procedure for Identifying and Remediating Language Problems)

- Auditory understanding or decoding implies the ability to understand what is heard. These exercises may help correct a deficiency in this area:
 - Verbal directions -
 - "Simon Says"
 - "Touch the back of your head with your left hand," etc.
 - The child listens to a story and is asked to answer questions.
 - "Yes - No - Maybe" questions
 - "A red light means GO."
 - "A cat can read."
 - "Barbers give haircuts."
- Visual understanding or decoding refers to the ability of the child to understand what he sees. These exercises may help correct a deficiency in this area:
 - Identify objects in catalogs, magazines, books, etc.
 - identify geometric forms (circle, square, triangle, diamond)
 - Discuss what occurred in a film and why
- Auditory association of ideas refers to the transference of ideas received through the auditory channel. These exercises may help correct a deficiency in this area:
 - Classify objects - "Name all the birds, flowers, trees, animals - you can think of."
 - Reverse process - "What category (group) do pig, cow, horse - belong to?"
 - Build concepts of same and different - "In what way are a train and a truck and a bus alike?"
 - Cause and effect questions - "What would happen if a cat and a mouse were put in a room together?"
- Visual association of ideas refers to the ability to interpret relationships between ideas that are presented visually.
 - Present many pictures to the child. Ask him to classify them into a previously stated classification such as farm animals, transportation, food, etc.
 - Present two similar pictured objects (i.e., car and truck). Ask child how they are alike and how they are different.
 - Present four pictures. Ask the child to identify the picture that is not related to the other three pictures and explain why.
- Expressing ideas or encoding refers to the ability to develop and express ideas:
 - The child describes an object and then creates and tells a story about it.
 - A child may teach a skill to the class.
 - Problem solving is helpful:- "What would you do if - - -?"

- Use games to develop beginning sounds: i.e.,
 "I went to the store,
 I bought bananas."
 Each child is encouraged to add a word beginning with B,
 i.e., ball, balloon, beans, etc.
- Listen for rhyming words in couplets; i.e.,
 "I know a man, "I saw a bee,
 His name is Dan." 'Twas on a tree."
- Finish rhymes by adding the last words of the second line, such as:
 "My name is Sue, "I have a cat,
 My eyes are ____." He caught a ____."
- Read poetry frequently. Stop and let the children fill in the
 last words in rhyme.

• Activities which develop in understanding the concept of same or different.

- Listen to sounds on instruments which are the same and different, i.e.,
 2 big drums
 2 small drums
 1 big drum and 1 small drum
 notes on the piano; high-low, same, etc.
- Listen to a rhythmic pattern on sticks. Ask a child to duplicate
 the pattern.
 "Make it the same."

• Pairs of words may be read to the children.

Ask: "Are these the same or different?" (adapted from Wepman's Auditory
 Discrimination Test)

pick-tick	boy-girl
cape-cake	bad-dad
rug-rug	pin-pen
bug-bud	pig-peg
ball-ball	barn-bar
bun-pun	bam-ban
pot-cot	map-nap
cut-cup	sick-thick
come-come	hop-hot
run-ran	turn-burn
him-hum	bat-bat
sock-suck	hub-hug
bad-bed	sell-shell
pit-pick	lot-lock
thin-shin	bet-bit
gun-bun	bet-pet
bad-bad	hop-hop

• Many additional activities which will add to the child's listening skills
 are presented in Listening Aids Through the Grades

David H. Russell and Elizabeth F. Russell

• An audiometer test should be used with each child to test his hearing acuity.

- Observable behaviors which may indicate hearing impairment:

- Inattention and lack of interest in conversation around him, or
 abnormally concentrated attention on the individual speaking.
- Failure to answer questions or failure to answer correctly.

- Repeatedly asking, "What did you say?"
- Tilting of the head to one side to bring best ear nearer speaker.
- Flat, nasal, or monotonous voice.
- Bewildered expression when directions are given to class.
- Restlessness and evidence of nerve fatigue; chronic fatigue from the constant effort to hear.
- Incorrect pronunciation of familiar words.

9. To Improve Auditory Memory

These activities may prove helpful to children who lack auditory memory:

- Many games require memory, i.e.,
"I went to a farm. I saw a horse, a pig, a sheep, and a goat.
Now tell me the names of the animals I saw."
- Rote teaching of songs and poems motivates and strengthens auditory memory.
- Following directions successfully demands listening and remembering; i.e., send the child on an errand which requires that he remember more than one thing. Make it a practice not to ask him to remember too many things at the beginning of his auditory memory training. It is important that he does not need to ask that directions be repeated.
- It is helpful to combine auditory memory and association, i.e.,
Present a series of words that have a relationship, such as,
cow horse pig goat
Ask the child to repeat the series of words in correct sequence and to describe the relationship.
- Listening to stories provides a need to remember:
i.e., The teacher tells a story and asks the children to tell the main idea and then to retell the story in sequence.
i.e., The teacher tells a story, then retells it and leaves one character out. The children listen to see which one was left out (or a character may be added, etc.).
- Memory games may involve directions for drawing:
i.e., "Listen to everything I say before you go to the chalkboard.
Then go do it."
 - go to the chalkboard
 - pick up a piece of chalk
 - draw two straight lines
 - draw one circle
 - draw one square
 - erase the chalkboard
 - walk back to your chair

10. To Improve the Ability to Put Events into Proper Sequence

Activities which require the child to consider logical order are important to reading.

- . Dramatizing the sequence of the child's day through action games and songs may help the child become aware of order, i.e., "Mulberry Bush:"
 - "This is the way we dress ourselves."
 - "This is the way we wash our hands."
 - "This is the way we eat our breakfast."
- . Tell the children a story. Let them draw pictures telling about it, in sequence.
- . Provide many opportunities for children to put pictures in a logical sequence (stories, poems, daily events).
- . Encourage the children to tell daily happenings in correct order:
 - "What did we do first?" etc.
- . Prepare a daily diary on growing a plant or taking care of an animal.

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