

Left-Handedness

LEFT-HANDEDNESS

Left-handers make up about 10% of the general population, so at least one or two are likely to be found in each classroom. Left-hand dominance itself is not a problem. It is included in this manual because of the unnecessary difficulty which many of these children experience in classrooms designed to meet the needs of right-handed children.

Some children who use their left hands for classroom activities have other motor and perceptual motor difficulties as well. There are more “pathological” left-handed than right-handed children. This means that more left-handers are naturally right-dominant children who choose to use the left because, for some reason, the right hand is clumsy. Interference with development or damage to one side of the brain can cause a child to use the nondominant hand in the dominant role because it works better. Because the number of right-handed children is so much larger, more children with unilateral (one-sided) brain dysfunction shift from natural right-hand dominance to left-hand preference and develop as left-handed children, than left-hand dominant children developing as right-handers (Bishop 1980). For this reason, many children who are experiencing motor or learning difficulties are left-handed. These children have the difficulties associated with being left-handed in a right-handed world in addition to motor or learning impairments.

This does not mean that most children who are left-handed are at risk for having learning disabilities or motor problems. Left-handers are a mixed group, with some children strongly left-dominant from an early age, some having a family history of left-handedness, and some taking a long time to develop hand preference—and even then using different hands for different tasks. Bishop (1984) found that about 5% of left-handed children with no known neurological history or mental retardation were “pathological” left-handers. The proportion was much higher for children with known neurological or cognitive impairments. These children are not necessarily clumsier, in general, than others; however, they are not as coordinated as most children in use of their nonpreferred hand. (That’s why they shifted.)

Because of the relatively high number of left-handed children, and because of the higher percentage of left-handed children with motor and learning problems, awareness of the needs of the left-handed child is very important.

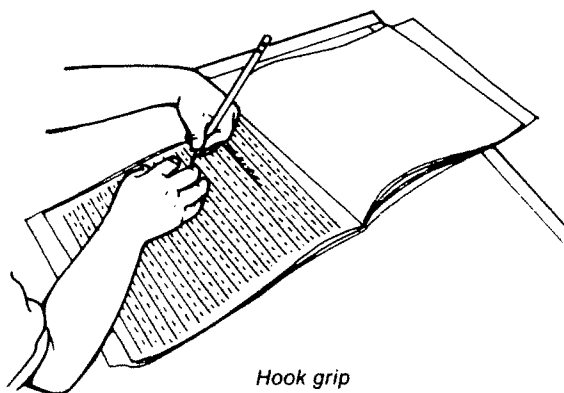
Differences between Right- and Left-Handers

Writing—especially cursive writing—was developed as the most comfortable and efficient way to get words down on paper for the majority of people. That means for right-handers. Right-handed writers use the elbow as a pivot point to provide a steady movement of the forearm across the page, which is

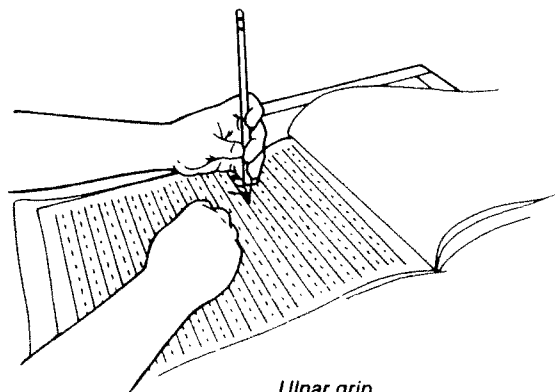
positioned to make this possible. The fingers of the hand form the letters as the forearm moves smoothly in an arc away from the center of the body. As the letters are written, the hand moves away from them, and all that has been written is clearly visible.

The left-hander, if taught in the same manner as the right-hander, is unable to use the elbow as a pivot point because the paper is slanted the wrong way. Instead, the entire forearm (including elbow) must move the pencil across the page. This is far less stable and harder to coordinate with finger movement. Left-handers also must push the pencil toward the center of the body, which presents a number of problems if attempted in the same way that a right-handed child pulls the pencil away from the center of the body. As the left hand moves toward the midline (center) of the body, it covers the writing, resulting in smearing and inability to see letters and words during and after writing them. This is especially difficult for young children who need visual guidance to form their letters and to remember what they have written. Children who have weak abilities in the areas of interpreting and integrating sensory information, or who have trouble with kinesthetic awareness (awareness of position and movement of body parts, without vision), have great difficulty when these are compounded by inability to see movements during writing.

Without assistance, many left-handed children develop awkward grip patterns in order to see the letters as the hand moves across the page. The two most common tendencies are hook and ulnar grip patterns.



Hook grip



Ulnar grip

The hook grip involves flexing the wrist so that the letters can be seen under the hand. If you bend your wrist forward and try to make small writing movements with your fingers for a few minutes, you will understand the difficulty which this pattern causes. The wrist and fingers fatigue easily, and smooth circular movements are restricted. The hook grip pattern makes extended cursive writing difficult.

The other tendency is for the child to use the ulnar fingers (those near the pinky side) to move the pencil instead of to stabilize the hand. This enables the child to move the thumb away from the tip of the pencil in order to see the letters under it. Again, this provides less stability.

Without assistance, left-handed children who try to write like right-handers usually develop some sort of grasp pattern that enables them to see what they are writing but interferes with smooth control of arm and finger movement. For this reason, many find manuscript easier than cursive writing and end up using it almost exclusively.

Scissor use presents similar problems. As the mother of a left-handed child, I am familiar with the difficulty of ensuring that each left-handed child uses the proper left-handed scissors. In the early grades, it was easy to tell whether my son had used lefty scissors by the jerkiness of the shapes that came home from school. Usually he had not, so even when I bought a good pair of lefty scissors and sent them to school, it took him some time to develop his cutting skills to the level of the other children. The reasons were many: all of the scissors were kept together in a can and the lefty scissors were missing; the teacher had him use scissors that were made for both hands (which were loose and didn't cut); someone else was using the lefty scissors; he was afraid to ask for them; and so on. With a classroom of children, it is difficult to make sure that children with special needs always use the correct tools, especially if they don't ask for them. By the time they reach the upper elementary grades, many left-handed children use their right hands for cutting, possibly because it is easier than cutting with the wrong scissors when the correct kind were not consistently available.

Right-handed scissors are designed so that the natural bending of the fingers and thumb pulls the blades together to cut the paper between them. When placed in the left hand, the same movement causes the blades to separate so the paper bends or the cut is not as clean. The wrong scissors also make it difficult for the child to see the line that is being cut, because it is blocked from view by a blade. Scissors that can be used with either hand also block vision of the line and have a tendency to loosen up so that the blades separate during cutting.

Accommodating the Left-Handed Child in the Classroom

It is very important to teach the best positioning and writing habits to children from the start, because it is much more difficult—and often impossible—to change patterns at a later age. Grouping left-handed children together for teaching writing helps them to learn the correct habits, rather than causing confusion or incorrect patterns when they try to copy grip, body, and paper positioning from their right-handed neighbors.

From the start, teach the correct way to position the body and the paper; to hold the writing implement; and to move the arm and hand. Activities that involve simple movement (lines, connected waves or circles, and so on) are helpful for practicing and developing these habits. Children will try to adapt their grip patterns to see their writing either under or over the hand. Encourage the child to develop a grip that leaves writing visible above or to the right of the hand. Working on the normal mature grip pattern (dynamic tripod) will be useless unless the child is also taught to position the pen, paper, and hand so that the writing is visible.

The same kind of assistance is helpful for older children who use awkward grip patterns, smear written work due to positioning and grip, are unable to see their written work, or are having difficulty combining smooth forearm movement with finger movement. Change may be more difficult to achieve, however. Individual practice sessions are recommended until the child begins to adopt new habits and use them spontaneously. If no change is seen, reduce written requirements and allow continuation of manuscript writing if it is faster and more comfortable than cursive.

Make every attempt to provide each left-handed child with good scissors designed for left-handed use. Be sure that the blades are held together tightly by the connecting rivet. Especially if other motor or learning problems are present, make sure that these are not compounded by use of tools that make the task more difficult. Teach the child to be responsible for finding or asking for the scissors that make the task easier, even if they are removed from the child's table or desk. If a child uses the left hand for writing but prefers to cut with the right even when lefty scissors are available, don't interfere unless accuracy is clearly better when the left hand is used.

References

Bishop, D. V. M. 1980. Handedness, clumsiness, and cognitive ability. *Developmental Medicine and Child Neurology* 22:569-579.

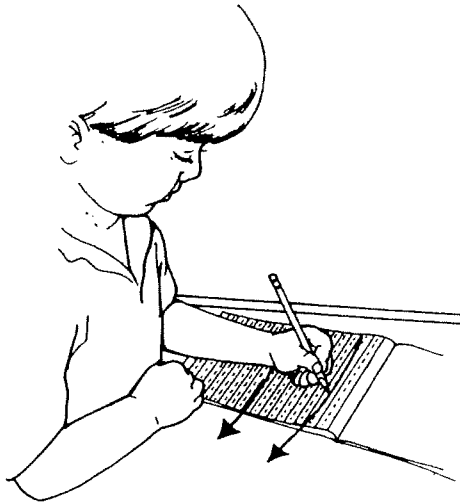
_____. 1984. Using nonpreferred hand skill to investigate pathological left-handedness in a selected population. *Developmental Medicine and Child Neurology* 26:214-226.

Child's Name _____

Date _____

LEFT-HANDEDNESS
Classroom and Individual Practice

ARM, HAND, AND PAPER POSITION



Purpose

To improve ability to control movement, see letters during and after writing, and write without smearing pen or pencil mark by dragging hand across writing

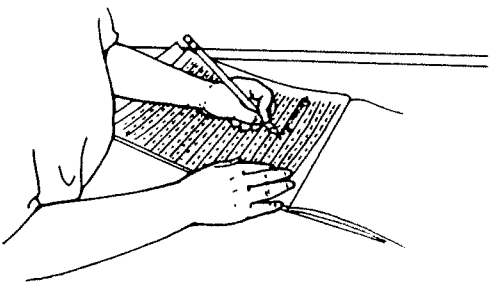
Position

Body position—Child sits at desk of proper height, with forearms resting on desk top. If desk surface is too high, child will be unable to see letters over hand when writing.

Elbow and forearm position—Left elbow rests on desk top in a position that allows the forearm to move in an arc parallel to the lines on the page.

As child writes down the page, the elbow is moved back so that the arc of movement of the forearm is parallel to the next line down.

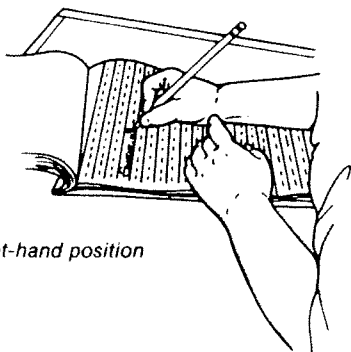
Grip and hand position—Child holds pencil in normal tripod grip pattern about 1" to 1½" from the tip (farther back than the right-handed child).



The hand is positioned so that it is always below or to the left of the writing line as the child writes from left to right across the page. If the writing line goes under the hand (as it does in right-handed positioning), vision will be blocked.

Paper—Position paper with the right side to the left of child's midline (center of the body). It should be far enough to the left so child can rest the elbow and swing the forearm in a complete arc without crossing the body.

Left-hand position



Slant paper so the left side is parallel to child's forearm as child writes across the line. Many children can see their writing better if paper is slanted to as much as 45 degrees.

Right-hand position

Use of these activities should be directed by a qualified therapist.

Child's Name _____

Date _____

LEFT-HANDEDNESS
Classroom and Individual Practice
TEACHING PAPER POSITIONING

Purpose

To teach child to position paper correctly for left-handed writing

Materials

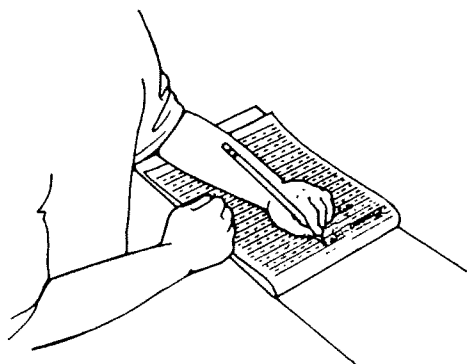
Paper; pencil

Position

Child is seated at desk of proper height, with arms resting on desk top. If desk surface is too high, child will be unable to see letters over hand when writing.

Procedure

1. Adult demonstrates placing paper in correct position on desk and describes the two things to check:
 - The left side "lines up with" (is parallel to) child's left forearm.
 - The right side is left of the center of child's body.
2. Adult hands writing paper to child, who positions it correctly on desk for writing. If child is unable to do this, adult asks, "What are the two things to check?" and repeats them, if needed.
3. This is repeated before every writing activity until paper is spontaneously placed correctly.



Desired Response

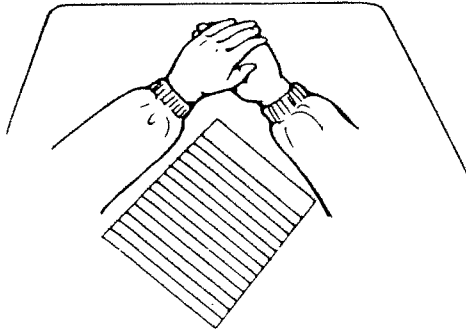
Child positions paper correctly on desk before any writing activity.

Variations and Adaptations

The illustration at the left can be taped to the child's desk to provide a visual reminder of correct positioning.

Paper can be taped in desired position until child becomes accustomed to writing this way.

Have child help you make a frame for writing paper by putting tape on the desk around the paper. This outline reminds the child how to position the paper. Tape also can be used to mark a positioning cue for placing one corner of the paper.



Have child place forearms on desk top to form a triangle, and use that as a guide for paper positioning. Paper is then moved to the left while the slant of the paper is maintained.

Most children can see their writing best if paper is slanted between 35 and 45 degrees; however, this is an individual preference. Try a variety of slants, and make sure that the child can see all letters which are written. If not, increase the slant of the paper.

Use of these activities should be directed by a qualified therapist.

Child's Name _____

Date _____

LEFT-HANDEDNESS
Classroom and Individual Practice

HANDWRITING GRIP AND ARM POSITION

Purpose

To teach child to write so letters and words are visible at all times and hand does not drag across letters, smearing pencil or pen

Materials

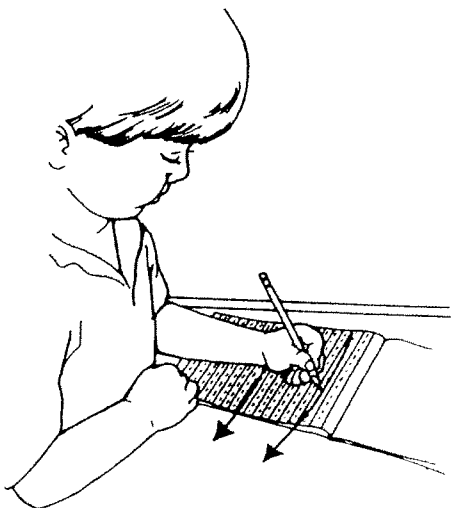
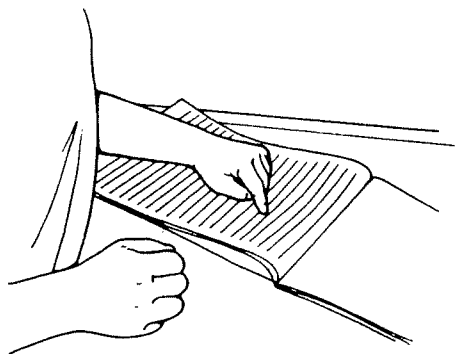
Lined paper; pencil

Positioning

Child is seated at desk of proper height, with arms resting on desk top. If desk surface is too high, child will be unable to see letters over hand when writing. Feet are resting on floor and trunk is bent forward slightly.

Procedure

1. Child places paper with left side "lined up with" (parallel to) the left forearm and the entire sheet of paper to the left of child's midline.
2. Child rests ulnar ("pinky") side of hand on paper and uses index finger to trace from left to right across the top line. The position of child's elbow and the slant of the paper are adjusted until the left elbow can stay in one place while the forearm moves in a smooth arc as the index finger traces the line. The hand always remains below or to the left of the line so that the full length of the line is clearly visible.
3. Child repeats this for each line on the page, using smooth movement of the forearm and maintaining the entire line in sight. The elbow is moved back after each line, but the arc remains the same. When the elbow moves back so far that the forearm is not supported by the desk, child moves the paper up.
4. When this is accomplished easily and feels familiar, child repeats the activity using a pencil or marker.
5. Child grips the pencil in a mature tripod pattern (a gripper may be used if this helps), about 1" to 1½" from the tip, and positions the hand so that it is below or to the left of the line to be traced. Child and adult work together to find the best position so child's hand remains below or to the left of the line and the line is clearly visible as it is traced from left to right.
6. Child traces all lines, starting at the top and working toward the bottom.



7. When this is accomplished easily, child uses this position of paper, arm, and hand for writing letters on another sheet of lined paper.

Desired Response

Child maintains paper and hand positions which ensure that all lines and written letters are clearly visible above or to the right of the hand during and following writing. The ulnar side of the hand rests on the paper and glides as the forearm moves smoothly across the page. The wrist is straight or extends slightly during writing. The elbow moves back as child progresses down the page, and the paper is moved up when the elbow is not supported by the desk top.

Undesired Responses

Child covers the line or letters with the hand, or uses a grip position that makes the letters visible under the hand, resulting in the need to flex (bend forward) the wrist, or move the elbow out to the left side, or both.

Variations and Adaptations

Once the ideal paper position is determined, paper can be taped to the desk until child becomes accustomed to writing this way.

Have child help you make a frame for writing paper by putting tape on the desk around the paper. This outline reminds child how to position the paper. Even a taped outline of one corner can provide a valuable cue.

Most children can see their writing best if paper is slanted between 35 and 45 degrees; however, this is an individual preference. If child can't see the lines or letters, try increasing the slant of the paper, moving the grip farther back from the tip of the pencil, moving the elbow farther away from the body, moving the paper closer to or farther away from the child, and leaning the trunk forward so child can more easily look over the hand.

If child is unable to use mature grasp pattern due to weak finger movement or habit, you can still work on keeping the writing line and letters visible above or to the right of the hand.

Use of these activities should be directed by a qualified therapist.

Child's Name _____

Date _____

LEFT-HANDEDNESS
Classroom and Individual Practice

COORDINATING ARM AND FINGER MOVEMENT— PRE-CURSIVE PRACTICE

Purpose

To teach child to write using smooth, coordinated movement of forearm and fingers

This activity is helpful for preparing left-handed children for the movements of cursive writing.

Materials

Lined paper (lines less than $\frac{3}{4}$ inches apart); pencil

Prerequisite Skill

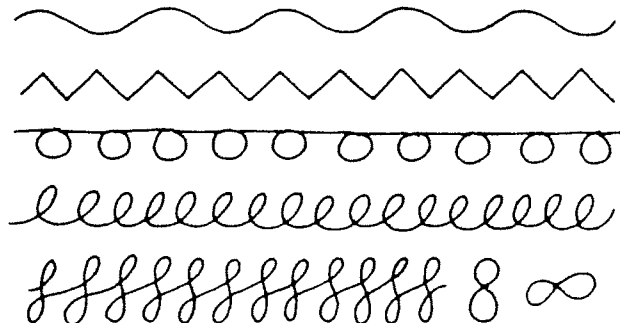
Child should be able to write manuscript letters with hand and paper positioned so that letters are clearly visible.

Position

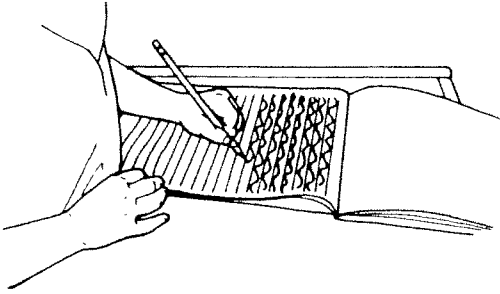
Child is seated at desk of proper height, with arms resting on desk top. If desk surface is too high, child will be unable to see letters over hand when writing. Feet are resting on floor and trunk is bent forward slightly. Paper is positioned correctly so that child can see the entire writing line above or to the right of the left hand.

Procedure

1. Child warms up by making a series of design lines from left to right across the desk top, using smooth, rhythmic movement of the index finger while moving the forearm horizontally. As child becomes more skillful, increase the complexity of the design lines. Examples of design lines progressing from simple to complex are:



2. Introduce thumb movement by asking child to touch thumb and index fingertips. Repeat procedure of making design lines across the desk top, using the tips of the thumb and index fingers together.



3. Once the movements described above are accomplished in a smooth and rhythmic manner, child grasps a pencil and repeats the activity on lined paper, keeping the design line between the lines on the paper. Encourage the use of visual feedback for correction. Have child circle places where lines are not smooth or accurate, indicating difficulty with control. Child repeats the activity and notices progress as fewer corrections are needed.

Desired Response

Child maintains paper and hand positioning which ensures that all lines and written letters are clearly visible above or to the right of the hand during and following writing. Child uses fine movements of finger joints for making designs, as smooth horizontal (or diagonal, depending on paper slant) forearm movement moves the hand across the page. Desired finger movement is seen at the knuckles and other finger joints of the thumb, index, and third fingers; and all strokes are pulled back toward the left elbow. The thumb joint bends during formation of designs and the desired grip pattern is maintained. The wrist is straight or slightly extended.

Undesired Responses

Child covers the line or letters with the hand, or uses a grip position that makes the letters visible under the hand, resulting in the need to flex (bend forward) the wrist, or move the elbow out to the left side, or both. Forearm moves in steps (that is, moves a few inches and stays there until several designs or letters are drawn, then moves right a few inches and repeats this movement pattern). Child moves the paper to avoid moving the arm, or uses forearm movement to form designs and letters instead of finger movement.

Variations and Adaptations

These warm-ups and activities can be done in finger paint, on the chalkboard, or in dirt, sand, or cornmeal.

Provide music during these activities to enhance the smooth, rhythmic qualities of the movements.

Incorporate the activities into a more purposeful activity such as coloring in pictures, designing material, decorating paper Easter eggs, and so on.

As child is learning cursive writing, letters can be practiced this way.

If child is unable to use mature grasp pattern due to weak finger movement or habit, you can still work on improving finger and arm coordination.

A writing frame can help children to maintain correct pencil position.

Use of these activities should be directed by a qualified therapist.

Child's Name _____

Date _____

LEFT-HANDEDNESS
Classroom and Individual Practice

COORDINATING ARM AND FINGER MOVEMENT FOR CURSIVE WRITING

Purpose

To increase ability to use smooth, coordinated movement of forearm and fingers for cursive writing

Left-handed children often use small finger movements for forming as many letters as possible before moving the forearm, rather than moving the forearm as letters and words are written.

Materials

Lined paper (lines less than $\frac{3}{4}$ " apart); pencil

Prerequisite Skill

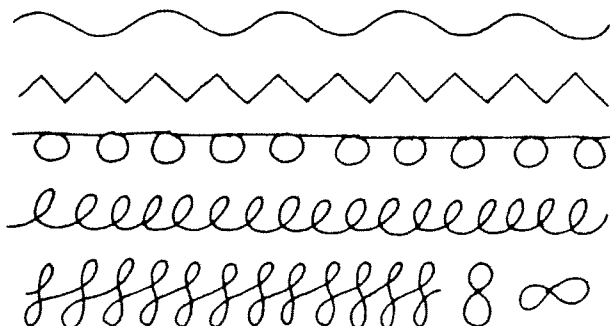
Child should be able to write manuscript and cursive letters with hand and paper positioned so that letters are clearly visible.

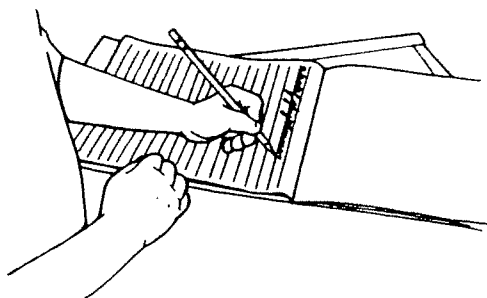
Positioning

Child is seated at desk of proper height, with arms resting on desk top. If desk surface is too high, child will be unable to see letters over hand when writing. Feet are resting on floor and trunk is bent forward slightly. Paper is positioned correctly so child can see the entire writing line above or to the right of the left hand.

Procedure

1. Child rests the ulnar ("pinky") side of the left hand on the desk top and touches the thumb and index fingertips together.
2. Child warms up by making a series of design lines from left to right across the desk top, using smooth, rhythmic movement of the finger while moving the forearm horizontally (or diagonally, depending on paper slant). As child becomes more skillful, increase the complexity of the design lines. Examples of design lines progressing from simple to complex are:





3. Once the movements described above are accomplished in a smooth and rhythmic manner, child grasps a pencil and repeats the activity on lined paper, keeping the design lines between the lines on the paper. Encourage the use of visual feedback for correction. Have child circle places where lines are not smooth or accurate, indicating difficulty with control. Child repeats the activity and notices progress as fewer corrections are needed.
4. Follow these activities with practice of connected cursive letters, either the alphabet or letters which are particularly difficult for the child. Finish the practice session with actual handwriting practice, using the newly learned skills in the actual context for which they are needed.

Desired Response

Child maintains paper and hand positions that permit all lines and letters to be clearly visible above or to the right of the hand during and following writing. Child uses fine movements of finger joints for making designs, as smooth horizontal (or diagonal, depending on paper slant) forearm movement moves the hand across the page. Finger movement is seen at the knuckles and other finger joints of the thumb, index, and third fingers; and letter strokes are pulled straight back toward the left elbow. The wrist is straight or slightly extended.

Undesired Responses

Child covers the line or letters with the hand, or uses a grip position that makes the letters visible under the hand, resulting in the need to flex (bend forward) the wrist, or move the elbow out to the left side, or both. Forearm moves in steps (that is, moves a few inches and stays there until several designs or letters are drawn, then moves right a few inches and repeats this movement pattern). Child moves the paper to avoid moving the arm, or uses forearm movement to form designs and letters instead of finger movement.

Variations and Adaptations

Provide music during these activities to enhance the smooth, rhythmic qualities of the movements.

If motor memory is weak, this activity can be helpful for reinforcing the movement pattern for letter formation.

As the child is learning cursive writing, letters can be practiced this way, with several lines of connected letters for each letter practiced.

If child is unable to use mature grasp pattern due to weak finger movement or habit, you can still work on improving finger and arm coordination.

A writing frame can help children to maintain correct grip position.

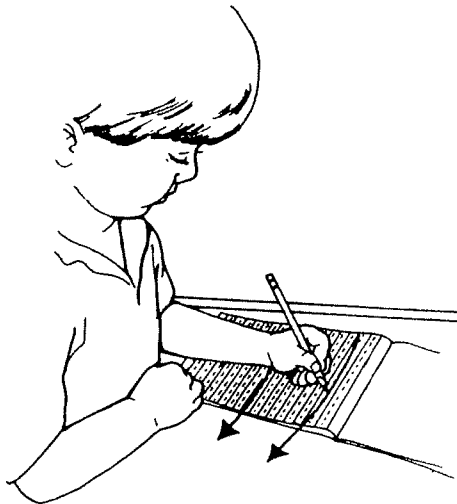
These activities can be practiced briefly, as a warm-up, before any cursive writing activity.

Use of these activities should be directed by a qualified therapist.

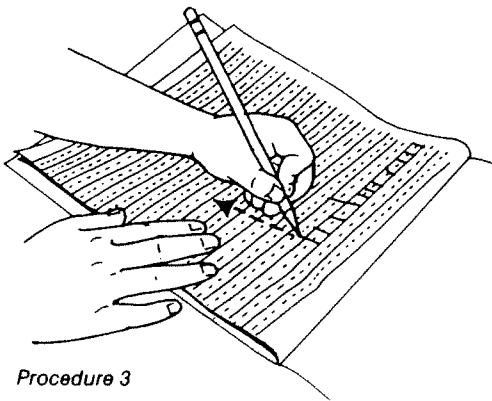
Child's Name _____

Date _____

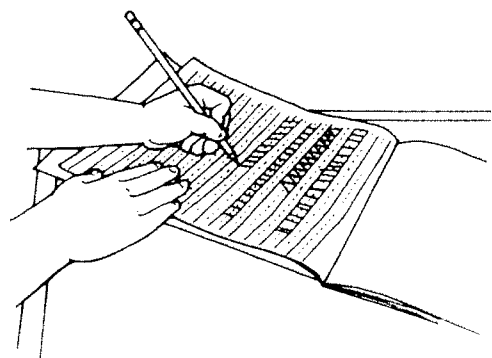
LEFT-HANDEDNESS
Classroom and Individual Practice
CURSIVE WRITING SLANT



Procedure 2



Procedure 3



Procedure 4

Purpose

To teach left-handed child to write using the most efficient finger movements, with downstrokes pulled straight back toward the left elbow

Materials

Lined paper; pencil

Prerequisite Skill

Child should be familiar with correct pencil grip and paper positioning.

Position

Child is seated at desk of proper height, with forearms resting on desk top. If desk surface is too high, child will be unable to see letters over hand when writing. Feet are resting on floor and trunk is bent forward slightly.

Procedure

1. Child places paper with left side "lined up with" (parallel to) the left forearm and the entire sheet of paper to the left of child's midline.
2. Child holds pencil in desired grip and adjusts paper slant so that movement of the forearm in an arc does not cause pencil to cross the writing line.
3. Child draws a straight line by pulling the pencil straight back in the direction of the forearm (toward the elbow). This is the most efficient line of slant for this child.
4. Child practices this stroke by drawing vertical lines or connected vertical lines between lines across the sheet of paper.
5. When this is accomplished easily, child uses this writing slant for handwriting practice and classroom written work.

Desired Response

Letter strokes are pulled straight back toward the elbow, and forearm is moved horizontally (or diagonally, depending on paper slant), so that strokes are angled consistently. Child maintains paper and hand positions that permit all lines and written letters to be clearly visible above or to the right of the hand during and following writing.

Variations and Adaptations

After determining best slant, use a ruler to draw lines at that slant from top to bottom on lined paper. Lines are separated by enough space to form letters of the desired size. Reproduce that sheet of paper. Child uses that paper for practicing writing, using diagonal lines as guidelines for slanting letter strokes.

Draw lines as described above on acetate or transparent vinyl, and have child place this over written work to check the slant.

For some children, the ideal stroke is vertical. If the paper is tilted so child can see writing above or to the right of the hand, wrist is straight, and downstroke pulled straight back toward the elbow results in a vertical stroke on the paper, then this is the most efficient slant and should be encouraged.

Have child help you make a frame for writing paper by putting tape on the desk around the paper. This outline reminds the child how to position the paper. Even a taped outline of one corner can provide a valuable cue.

Most children can see their writing best if paper is slanted between 35 and 45 degrees; however, this is an individual preference. If child can't see the lines or letters, try increasing the slant of the paper, moving the grip farther back from the tip of the pencil, moving the elbow farther away from the body, moving the paper closer to or farther away from the child, and leaning the trunk forward so child can more easily look over the hand.

Use of these activities should be directed by a qualified therapist.

Child's Name _____

Date _____

**LEFT-HANDEDNESS
Classroom Suggestions**

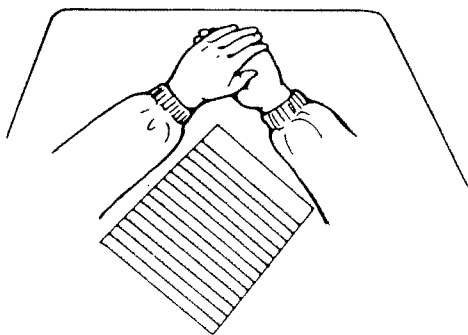
MAXIMIZING FINE MOTOR PERFORMANCE

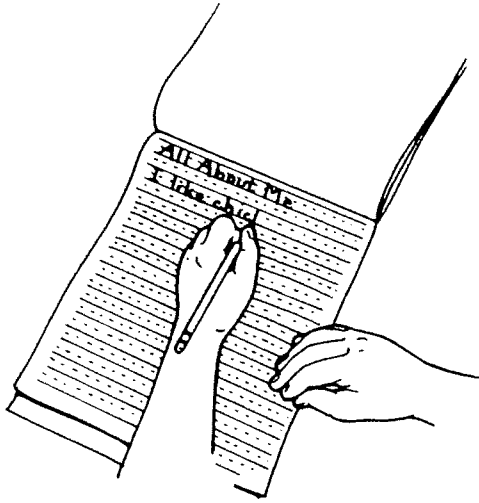
Purpose

To maximize fine motor performance of the left-handed child

Learning to Write

1. Identify left-handed children as early as possible (preferably before teaching how to hold a pencil for writing), and group them together when teaching writing. This will help them to learn the correct habits, rather than causing confusion or incorrect patterns when they try to copy grip and body and paper positioning from their right-handed neighbors.
2. Teach correct habits from the beginning so that the left-handed child doesn't try to write like a right-handed child and develop compensatory grip positions which will make writing more difficult later. Provide individualized instruction (or group instruction, if several lefties are learning together) for paper positioning, grip and hand positioning, coordination of finger and arm movement, and handwriting slant.
3. Use visual or physical cues for helping the child to develop habits for paper, grip, and arm positioning.
 - Tape an illustration of the desired positioning on upper left-hand corner of the desk.
 - Tape paper on the desk in the desired position.
 - Place tape on the desk around the paper to form an outline, to remind child of the ideal paper position. A taped outline of one corner often works well.
 - Teach child to place both forearms on the desk to form the shape of a triangle. The paper should fit in the triangle, with the left side lined up with the left forearm. Without changing the slant, move the paper to the left of child's midline (center of the body).
4. Use cards or letter strips that show model letters with left-handed slant for teaching letter formation. If your handwriting program includes tracing of letters, make sure that this child is tracing letters with the correct slant. If practice sheets with left-handed slants are not available, write the letter with the correct slant for child to trace, or eliminate the tracing stage.
5. When preparing writing practice sheets, place the sample letter (or word) at the top or on the right side of the page instead of on the left side, so it will not be covered by the left hand as the child writes.

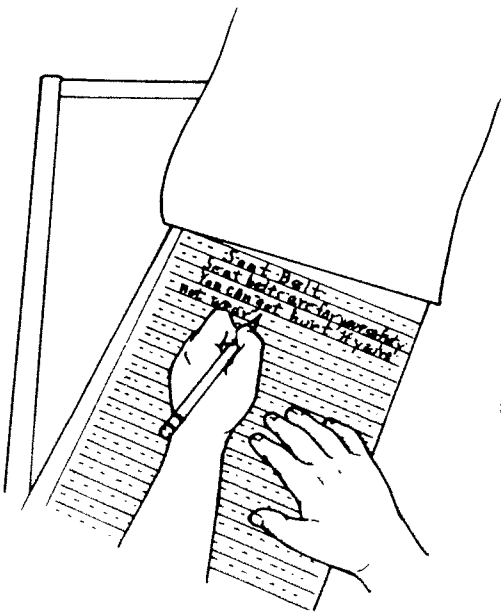




6. Provide writing books that illustrate left-handed slant.
7. It is hard or impossible to write large letters on paper with the left hand without blocking view of part of the letter with the hand. Writing letters on the chalkboard, at shoulder level or lower, makes it easier to see the letters above the hand, even as they are formed. This also helps children to get the idea of writing on paper so letters are visible above the hand.
8. During all writing activities, monitor position and grip. Check to see that the writing line and written letters are clearly visible above or to the right of the child's left hand, and that the child's wrist is straight or slightly extended. If they are not, practice additional grip and positioning activities.

Pre-Cursive and Cursive Writing Practice

1. Before beginning cursive writing, try to establish correct position and grip so letters and words are always visible above or to the right of the hand.
2. Pushing the pencil from left to right across the page is more difficult than pulling it, as right-handers do; so left-handed children often have difficulty coordinating arm and finger movement smoothly for cursive writing. Practice of pre-cursive finger and arm coordination activities can improve these skills. It is especially helpful if these skills are mastered before cursive writing is presented. In this way, the child is more likely to learn cursive letters and connections using movement patterns which are smooth and well controlled.
3. Slant-top desks provide more support for the forearm and are sometimes helpful for left-handed children who are having difficulty with smooth arm movement during cursive writing.
4. Encourage coordinated use of forearm and finger movements during all classroom cursive writing. The fingers should form the letters as the forearm moves smoothly from left to right for horizontal movement along the line. The wrist should remain fairly straight or extended (bent back) slightly. When learning letters, have children practice coordinating arm and finger movement by repeating and connecting each letter across the line.
5. Prepare paper with guidelines for most efficient slant, and reproduce it for classroom use. This can help child use downstrokes which are pulled straight back toward the left elbow. For some left-handed children, the most efficient position, depending on paper slant, is vertical writing with no slant. In this case, vertical writing should be encouraged.



Seating and Positioning

1. During paper-and-pencil activities, seat the left-handed child so the light source comes over the right shoulder, to avoid shadows being cast on letters by the left hand. If the light source is in the center of the room, sitting on the left side of the room often helps with this.
2. Make sure the desk is the proper height. If the writing surface is too high, child will be unable to see writing above the left hand.
3. Encourage child to sit with chair pulled in close to the desk or table, and to lean forward slightly to maximize the ability to see writing over the left hand.

Scissors

Make sure that scissors specifically designed for left-handed children are available both at school and at home. Teach child to take responsibility for getting and using them for any cutting activity.

Use of these activities should be directed by a qualified therapist.

Child's Name _____

Date _____

**LEFT-HANDEDNESS
Classroom Suggestions**

CORRECTING AWKWARD GRIP PATTERNS

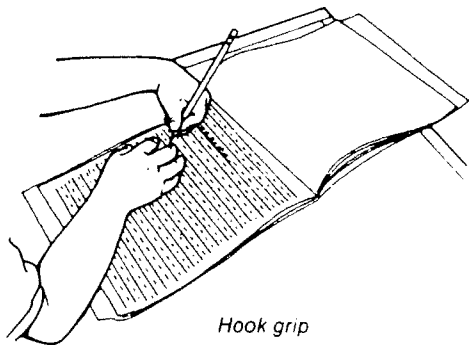
Purpose

To maximize fine motor performance of the left-handed child who has developed an awkward grip that interferes with writing

Discussion

Many adults, especially left-handed ones, have developed unique grip patterns that do not interfere with their ability to write. If an older child (above grade 4) uses such a grip pattern but has no difficulty with hand or finger fatigue, discomfort, or appearance of cursive writing, there is no reason to work on changing it. Consider working on establishing more efficient positioning and grip for the following children:

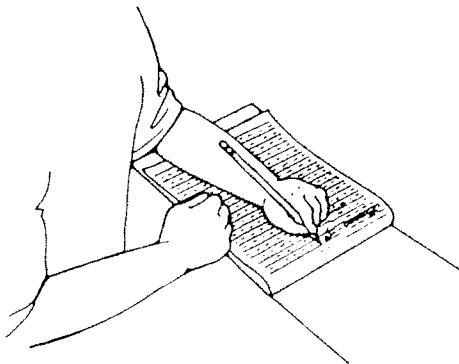
- Children who have not yet learned cursive writing (kindergartners and those in first, second, and third grade).
- Children who are learning cursive writing (third- and fourth-graders).
- Children who have difficulty with cursive writing due to grip (hook position tires the fingers, legibility is poor because child can't see letters or because arm and hand movements are not smoothly coordinated).
- Children who drag the left hand across written work, smearing pen or pencil marks.
- Children who have difficulty with writing because they are unable to remember what they have written and it is blocked from view by the writing hand.



Suggestions for Improving Grip

The "perfect" grasp pattern is not so important as one which allows fine finger movement, straight or slightly extended wrist, and writing that is visible above or to the right of the hand. Improving grip or arm and hand control will be unsuccessful unless all of the following are addressed:

1. Teach and practice positioning of paper and hand. If a pencil gripper is helpful, use one that is small and does not block vision of writing. A Stetro® gripper provides tactile cues for finger positioning and is considerably smaller than the triangular grippers. A rubber band around the pencil also can provide cues for finger positioning without interfering with vision.



2. Have child practice seeing writing line and written letters above or to the right of the hand instead of below it. Writing on the chalkboard below shoulder level can help give the child the “feel” of seeing the letters above the hand. Make sure that when child writes on the board, the wrist is bent back slightly (extended).
3. Have child practice activities that improve coordination of arm and finger movements.

If grip or coordination cannot be changed, consider reducing written requirements; or allow printing, rather than cursive writing, for written work.

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Use of these activities should be directed by a qualified therapist.