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ABSTRACT

Language instruction, particularly in the elementary school, should be reinforced through the use of visual aids and through associated physical activity. Kinesthetic experiences provide an opportunity to make use of non-verbal cues to meaning, enliven classroom activities, and maximize learning for pupils. The author discusses the educational theories of De Sauze, Kale, and Asher, frequently giving examples of how kinesthetic reinforcement aids learning. (RL)

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# KINESTHETIC REINFORCEMENT- IS IT A BOON TO LEARNING?

## Examples Show Positive Relationship

Foreign language educators study the possible connections between physical movements and language learning for observable increases in retention of material learned. Whether kinesthetic cues will rank in validity with auditory and visual ones is the consideration. Teachers seem ready to accept another potential factor in the learning process.

By Roxilu K. Bohrer

Most of us have watched with amusement as a golfer twists his body to one side in an effort to influence the flight of his ball toward the cup or as the bowler balances precariously on one foot hoping thereby his ball will curve toward the king pin.

If we FL teachers could see ourselves in operation in the classroom, might we not see similar contortions as we enact different roles in a dialog in an effort to coax an appropriate response from our pupils? We commonly use certain hand signals as cues for action for the pupils at the same time we give verbal commands. Might it not be true that this is the gifted teacher's method of throwing himself wholeheartedly into the action to maximize the number of cues available to the pupil for understanding the total situation?

### More Cues To Meaning

Delving a bit deeper, we begin to wonder about the possible connections between physical movements and language learning and whether, if the pupil performs the physical action at the same time as he responds verbally, this facilitates his learning and improves his retention of the material learned. Common sense would seem to indicate that the more cues a child has as to the meaning of an action or situation he is observing or participating in, the more likely he is to comprehend and to retain this understanding in his repertoire of material which he can use in a similar situation.

These cues may be visual, in the form

of actual objects or pictures of objects, actions or events, motion pictures, or televised representations of events. They may be auditory, in the form of sounds made or words spoken by the teacher, the television teacher, the audio tape, or a classmate. They may be kinesthetic, in the form of movements of the child's body, either his vocalization muscles as he forms words concurrently with performing an action or his large skeletal muscles as he carries out a sequence of movements (as in hopscotch or jump rope). Or the cues may be a combination of the visual, auditory, and kinesthetic. Often they may be rhythmic, such as bouncing a ball or singing or reciting poetry. A number of experiments in learning seems to indicate that rhythmic material is more easily learned and is retained longer.

Within the group of kinesthetic cues may be included tactile sensations—touching and manipulating objects. Smell and taste are important sensations also. Would the smell of fresh bread baking not facilitate learning the word for bread? A trip to a restaurant specializing in foreign foods, especially if the waiters speak the language, is a memorable experience. What teacher can ever forget the thrill of the moment when Helen Keller's teacher, holding her small pupil's hand under the pump, succeeded in communicating to her the word "water" as it flowed over her hand?

We know from personal experience that the pleasure of participation has a powerful appeal to children and adults



Roxilu Bohrer loads her car with aids for a FLES teacher workshop.

as well. We all like to be where the action is! And if we cannot engage in certain sports such as horseback riding, we can enjoy them vicariously through television or motion pictures.

We realize also that younger children have a definite need to move, to stretch, to stand, and to change position occasionally. Even so simple an activity as standing to respond to a question such as "Who is wearing a blue shirt?" or "Who has a birthday this month?" will

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## Examples

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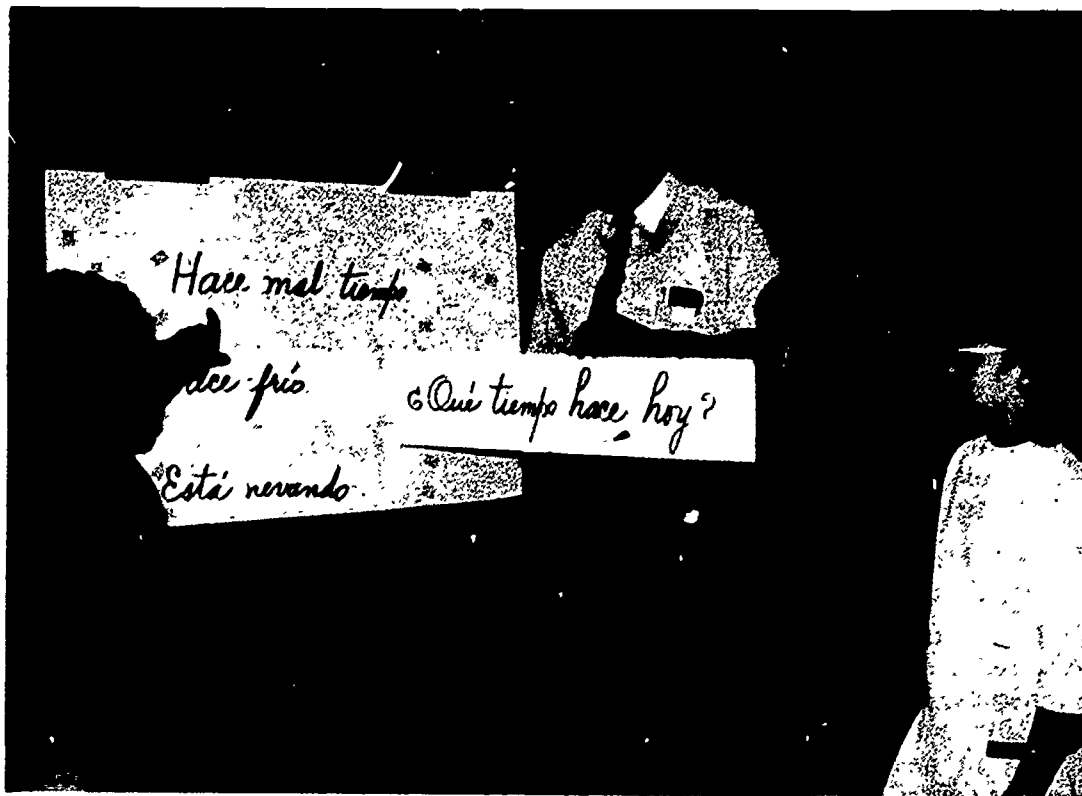
follows: "Éste es un niño," a singing game in which pupils stand in a circle and throw the ball around the circle, counting in Spanish as they throw. Number five steps to the center and is asked by the others "Cómo te llamas?" When he responds "Me llamo\_\_\_," the group sings "Éste es un niño," (or if it is a girl, "Ésta es una niña,") while the one in the center briefly basks in the spotlight of attention. Then he throws the ball to another child within the circle and the game continues.

Much appropriate movement is included in the jump rope game, "El reloj da la hora." As the group chants the hours "Da la una, dan las dos" to represent the clock striking, one pupil runs in, jumps exactly the number of times the clock strikes, and runs out. If he misses, it is another pupil's turn.

### Movement, Choice, Games

One of the favorite singing activities is "Yo soy Guerrero," in which pupils mimic a robot as he points to head and arms and legs, hands and feet, naming each in Spanish and moving the part named.

Another very popular activity is a pretend "merienda" in which one pupil offers a choice of desserts and drinks from appropriate colorful visuals, of course, to a group of pupils seated in a



Dr. Roberto Smith, FLES project teacher, has pupils identify answers in written form and read them after hearing the oral question.

semi-circle in front of the class. Pupils enjoy saying "I want chocolate ice cream and Coca-Cola."

The game "Estoy pensando en un amigo" (or "una amiga") allows all to participate as they try to guess the person's name from a series of clues: He is sitting in the second row; he is wearing a blue shirt; he has brown hair.

Team contests are always popular and call for maximum involvement. For example, a team of boys may compete with a team of girls in going to the board, writing arithmetic problems as heard on the audio tape, to see who can write the correct answer first.

Visuals of a number of different places such as church, school, plaza, university, hospital, and home may be

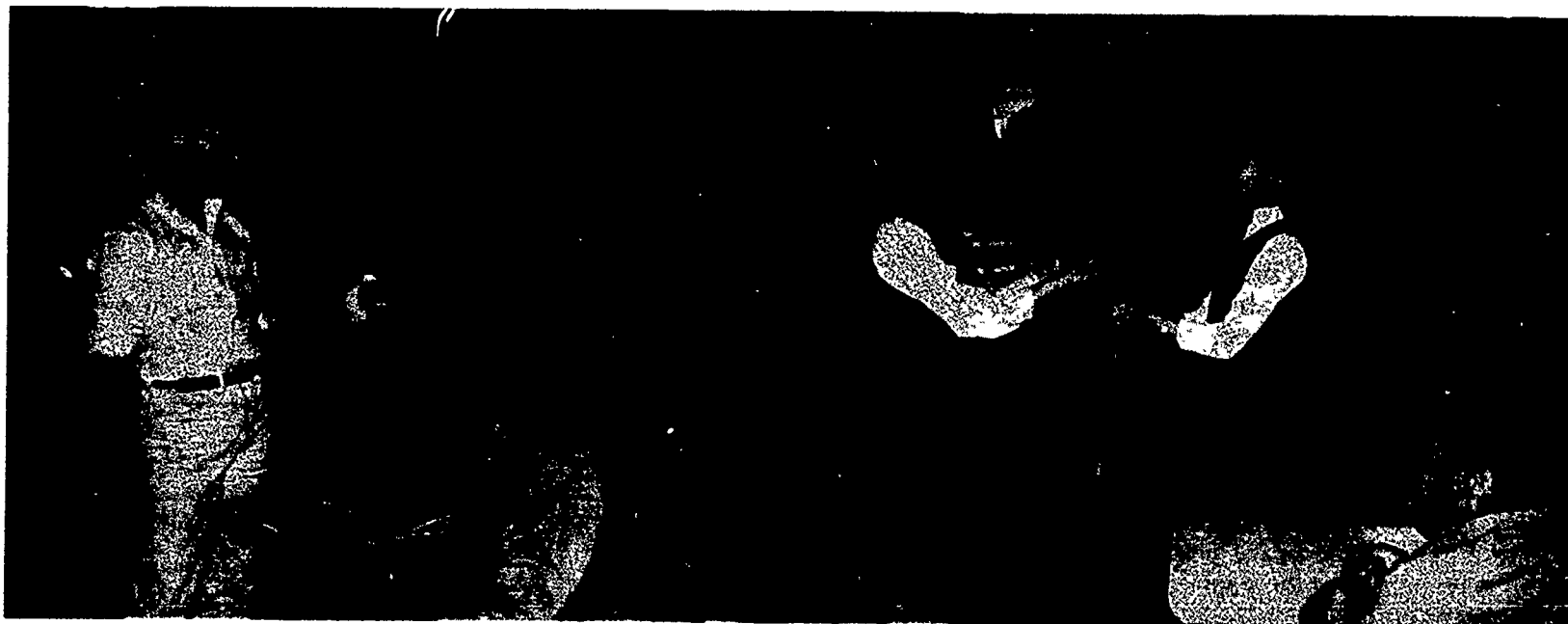
placed on the chalkboard to play a game "Adónde va él (ella)?" As the teacher moves the cutout of a man or woman toward one of the places, pupils try to see which team can give the correct statement first.

From these examples it is evident that there is an abundance of opportunity for the alert teacher to capitalize on kinesthetic cues, thereby enlivening the class and maximizing learning for the pupils.

<sup>1</sup>Emma M. Birkmaier, "Modern Languages," *Encyclopedia of Educational Research*, New York, Macmillan, 1960, p. 878

<sup>2</sup>Ibid

<sup>3</sup>James J. Asher, "The Total Physical Response Approach to Second Language Learning," *Modern Language Journal*, Vol. LIII, No. 1, (January, 1969), pp. 3-17



Elizabeth Garrison's Grade 4 Cartersville class does a chain drill with choosing ice cream flavors and works up an appetite too.

Jump rope is fun for third-grade girls. "Quieres jugar al lazo?" "¡Si, como no!" Charlotte Stewart's Cartersville crew jumps rope in Spanish too!

allow individual children the pleasure of participation by responding appropriately.

Although logic tells us that kinesthetic learning or "body English" can be an important factor in foreign language learning, the professional teacher will be interested to know of any pertinent research.

### **Kinesthetic Reinforcement Studies**

There are several studies which seem to have some bearing on the matter. According to DeSauze, visual, aural, and kinesthetic reinforcement aids in retention and is better than visual reinforcement alone.<sup>1</sup> Kale, reporting on the learning of Russian vocabulary under different conditions of motion picture presentation, concludes that "... in pairing words with native-language words as compared to pairing them with pictures of objects or movements, results generally support the notion that meanings are learned more efficiently and retained longer when words are directly associated with the objects, actions, or movements they represent."<sup>2</sup>

Asher,<sup>3</sup> in a study limited to only one aspect of language learning, comprehension, reports on a method for attaining listening fluency which he calls the total physical response technique. Students listen to a command in the foreign language and immediately obey commands of increasing complexity. The critical factor here is the performance of the action during the retention test. Asher concludes that the motor experience of students has many components: position, concurrency, cue, and sequence. The complete pattern of the motor act seems to be necessary to facilitate comprehension.

### **Examples In Georgia Program**

Turning to "Viva Nuestra Amistad," the elementary school Spanish team-teaching program now in use in a number of Georgia schools, we find that kinesthetic learning has been taken into account in developing both the Spanish teacher's and the classroom teacher's manuals. Suggestions are made in almost every lesson for some form of physical participation by the pupils. Those requiring more space may be used outdoors when the weather is nice. Others involving only a few pupils at a time may be done in the classroom, with the remainder of the pupils participating vicariously.

Some examples of kinesthetic learning in "Viva Nuestra Amistad" are as  
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**"Arre, caballito,"**  
Cartersville third-graders sing and gallop with the recording under Margaret Burton's direction.

**Cornelia Johnson's**  
Grade 3 pupils in Cartersville play the game "Esta es una nina" in the classroom.

**The robot song with**  
motions gives Bennie Weem's fourth grade in Cartersville a chance to stretch.

