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ABSTRACT

Non-English speaking students of average intelligence experience extreme frustration when learning to read. The frustration is partly a result of simultaneous requirements to speak, read, listen, and write in the new language. It also is possible that the teaching methods and strategies employed by the teachers could be harmful to non-English speaking students' academic success and self-concept development. If teachers are to work effectively with non-English speaking students, they must begin with an English-based, cognitively oriented program of some type. By developing cognitively oriented programs, teachers can be assured that students can understand concepts in English prior to being directed to read and understand those concepts. Weikart's cognitive curriculum may be useful for developing such a program. Content areas focus on classification, seriation, spatial relationships, and temporal relationships that are taught through providing motor and verbal experiences. Three levels of representation (index, symbol, and sign) are then integrated into the curriculum. For example, Weikart's model can be used to teach students about the four main food groups. For the classification index level, the teacher would exhibit many different real foods from the food groups; for the spatial relationships index level, the students would discuss size relationships of the foods, and so on. By using the model, a teacher can take advantage of a non-English speaking students' nonverbal abilities, learning styles, and verbal concepts in their native languages to move them progressively toward the language-related skills in English. (HOD)

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# THE APPLICATION OF WEIKART'S THEORIES IN TEACHING NON-ENGLISH SPEAKING STUDENTS HOW TO READ

Kent Layton

## Introduction

In today's public schools the enrollment of non-English speaking students continues to rise; commensurately, the problems of teaching reading skills to those children who have little knowledge or understanding of the English language also increases. It is needless to remark that there are a multitude of problems encountered by the students and their teachers daily.

A language barrier can be devastating to the scholastic achievement and social acceptance of children who have distinct languages. Additionally, cultural shock can possibly cause a reversal of and/or damage to the natural learning processes of children who are considered normal only when they are in an environmentwhere their native language is spoken. Based on these introductory remarks, an attempt will be made herein to present the research, teaching strategies, and teaching models related to the problems identified and to offer a procedure for their partial solution. It is hoped that the information will be of practical value and useful for all teachers.

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## The Research and Its Interpretation

Learning to read in any language is a complex process according to almost any reading authority. But children who must learn to speak, read, listen, and compose in a new, second language to survive in a strange environment, have many additional disadvantages not faced by the speakers of that native language. Slowness in the acquisition of a second language may also result in slow progress in learning to read according to Modiano (1973). Additionally, Anastasiow (1973) suggested that students' self-concepts could be damaged while learning a second language if the teachers employed procedures that changed the students' thinking processes. Another problem that has been identified is that the students' native languages are relatively useless for communicating in their new environment except when they are among members of similar cultural/ethnic/linguistic heritage. Seemingly, problems faced by these students appear initially to be insurmountable.

Carroll (1973) reported that teachers were observed to interpret poor language performance to be commensurate with intellectual development. However, Strickland (1968) presented evidence that opposed the views of the teachers described by Carroll. According to Strickland, if a student's language performance is commensurate with her or his range of experiences in the new environment, then the student's language performance should not be judged as inferior if the development is moving in the direction of the norm, however slowly or quickly the growth is occurring.

Riessman (1962) also supported the same idea by writing that culturally deprived children were often perceived and labeled as dull when their cognitive performance was slow in standard English tasks or activities.

After his review of the studies cited above, Layton (1979) suggested that non-English speaking students must often decipher information on a printed page then translate the information into their own language before meaningful understanding could occur. Apparently, the achievement of translating a language is evidence that active intelligence is being employed by the children (Anastasiow, 1971) and negates the idea that slow completion of cognitive tasks is caused by intellectual dullness in non-English speaking students.

Non-English speaking students who have average intelligence experience extreme frustration when learning to read. The frustration is partly a result of simultaneous requirements to speak, read, listen, and write/compose in the new language. It also is possible that the teaching methods and strategies employed by the teachers could be harmful to non-Englishing speaking students' academic success and self-concept development (Layton, 1979).

Reading is usually referred to as a thinking process or as a cognitive process (Anastasiow, 1973). In support of that definition of reading, Jung (1968) stated th[illegible] for a child to learn, both active cognition as well as participation was required. Athey (1971) also believed that cognitive development, acquisition of language,

and learning to read were highly positively interrelated. She contended that the only difference between the acquisition of language and learning to read was in the teaching methods employed.

Contrary to Athey's views and other positions presented above, Wardhaugh (1971) contended that the theories of language acquisition's relationship to learning to read could not be supported. It was his idea that the two areas of development were contrasting. However, Entwisle (1971) encouraged educators to be very aware of persons from various ethnic and social groups who may have different cognitive styles that could enhance or depress their abilities to learn under specific conditions.

It is apparent that not all authorities are in agreement as to the characteristics of the non-English speaking students nor the methods of teaching to be employed. Nevertheless, it appears logical that if teachers are to work effectively with non-English speaking students, teachers must begin with an English-based, cognitively oriented program of some type. By developing cognitively oriented programs, teachers can be assured that students can understand concepts in English prior to being directed to read and understand those concepts. Weikart's works may used for developing that type of program.

## Weikart's Cognitive Curriculum

Weikart (1971) developed a program referred to as the Cognitive Curriculum that appears to contain all of the variables

that seem to be important to include in a program designed for non-English speaking students. Weikart's goals may be summarized as follows:

1. In a cognitively oriented program, children will be given experiences with real objects and will learn to discover the relationships that exist among the objects and events in the environment.
2. Children must be allowed to construct mental representations of those relationships that exist and apply them in complex and abstract situations that occur in their own world.

Weikart developed his program from the extensive work of Piaget. Weikart developed four content areas that may be used by teachers to focus on the process of learning rather than to focus on learning facts and subject matter that initially may have no meaning to the children at all. The content areas developed by Weikart are as follows:

1. Classification in which the child is involved in activities related to functional and relational discrimination. Objects are grouped according to size, shape, and color.
2. Seriation in which the child is involved with ordering objects in relation to size, quantity, and quality.
3. Spatial Relationships in which the child's perception of himself in space is developed. Concepts of position,

direction, and distance are taught through real experiences.

4. Temporal Relationships in which the child learns about time and works with time periods. Chronological order and concepts concerning beginning and ending periods are also taught.

Weikart explained that the content areas are taught through providing motoric and verbal experiences. Next, he added the three levels of representation that were to be integrated. Weikart's representation levels, beginning with the lowest level, are as follows:

1. The Index Level is the level of representation in which the child uses cues to find relationships among real objects. Cues may be any part of an object or related marks or sounds of an object.
2. The Symbol Level is the level of representation where the child works with pictures, drawings, and sketches that represent some real object.
3. The Sign Level is the highest level of representation where printed verbal symbols take on meanings of real objects although there is no resemblance to the real object. This is when letters and words are introduced.

Non-English speaking children may have mastered those levels in their own language, but must be given experiences in their new environment that will result in their ability to transfer that

previous knowledge and relate it to English. Teachers' knowledge of Weikart's representation levels will enhance their abilities to prepare and conduct lessons that will be successful and beneficial to non-English speaking students.

## Application of Weikart's Model to Teach Non-English Speaking Children

The following examples may be used by a teacher to integrate Wikart's four content areas, motoric and verbal experiences, and the three levels of representation to teach non-English speaking students to read. The primary object for presenting them will be to teach the students about the four main food groups.

### Content Areas

1. Classification Index Level-- the teacher would exhibit many different real foods from the four major food groups for the student to see, touch, taste, feel, and smell. Names of the foods would be introduced but no emphasis would be placed on their remembering all of the names. The student would be able to examine parts of the foods by having the teacher cut and tear foods. Then, the student would group the foods into classes (i.e. color, shape, size, etc.). At the index level students would not always be able to have real examples, so pictures would be substituted. At the symbol level the teacher would move to all pictures emphasizing their names and

characteristics more. At this point the teacher could discuss the different kinds of foods that are available at fast food restraunts and to what food groups they belong. Nutritional aspects could also be discussed depending on the age of the student. Next, the teacher would have students illustrate their favorite foods using paints or crayons. At the sign level students would write short essays (language experience stories would work very well too) about experiences in restraunts and try and locate the propaganda techniques in advertisements used by those establishments. The preceding activity would also fulfill the verbal level of operation.

2. Spatial Relationships Index Level-- students would discuss size relationships of many foods and then experiment and explore to determine where the various foods are produced. Fruits and vegetables would be measured to compare size with exact numbers and relationships. Motoric experiences would include playing "Simon Says" games with various foods to give the students experiences with terms such as : front, back, side, under, over, around, etc. At the symbol level the students again would draw or sketch pictures of the foods to make them life-like in size, shape and color. Then, at the sign level the students would discuss with the teacher the location of foods in a refrigerator and compose a comical short story about different types of food being unhappy about their position in

the refrigerator. This would fulfill the verbal level also.

3. Temporal Relationships Index Level-- students would discuss proper time limits for chewing food as well as eating slowly in a relaxed atmosphere. They would also experiment to determine how long it takes to grow some foods and make comparisons of the time for the different food groups. At the symbol level the students would collect several pictures from magazines and decide which foods take longer to produce, which foods are better for our diets, and develop a bulletin board to show their findings and feelings about the four food groups.

By using Weikart's model, a teacher can take advantage of non-English speaking students' nonverbal learning, learning style, and verbal concepts in their native languages and move them progressively toward the language-related skills in English. Therefore, it is extremely important for the teacher to encourage the students to use their oral and written language abilities to help learn English terms and concepts. The end result provides the student with the ability to gain meaning from printed words on a page and use the information in their new environment to learn and survive.

## Summary

In this paper a procedure has been presented for preparing a learning program for non-English speaking students. The intent

was to demonstrate that by beginning at Weikart's index level for listening to and speaking English, the students could progress to the symbol level with few, if any, complications.

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