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ABSTRACT

Cognitive style mapping enables adult basic education (ABE) teachers to more readily identify a student's cognitive styles, or preferred way of acquiring information, as well as the specific areas where improvement is needed. The procedure prescribes techniques and resources for enhancing both academic skills and interpersonal relationships. The pamphlet is an outcome of a Federally funded project entitled "Identification of Preferred Cognitive Styles and Matching Adult Reading Program Alternatives for the 0-4 Grade Level." It briefly describes the instrument and outlines the procedures. Cognitive styles are surveyed by the presentation of a series of statements which cover all elements of cognitive styles. To accommodate students with varying achievement levels, students can be inventoried with a card reader, audio tape cassette player, or card file. Three areas are explored: (1) symbolic orientations (how information is received), (2) cultural determinants (how information is interpreted), and (3) modalities of inference (how conclusions are drawn about information). (EA)

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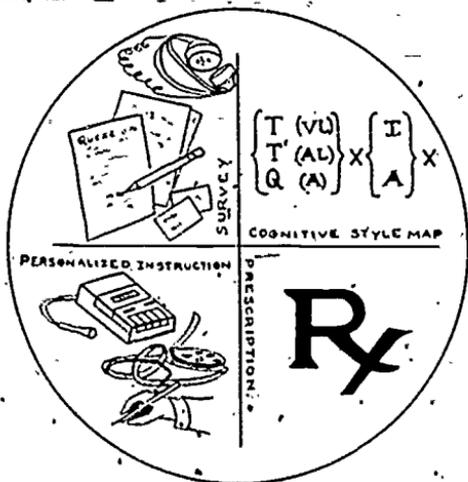
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# COGNITIVE STYLE MAPPING AND MATCHING READING PROGRAM ALTERNATIVES

Survey



Cognitive  
Style  
Map

Prescription

Personalized  
Instruction

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## FORWARD

Adult Basic Education programs are continually seeking means to improve teaching and learning methods which will help make the learner's efforts more effective and productive. Although current Adult Basic Education programs have been relatively successful, it is apparent that the needs of the following groups should be more adequately provided for:

Young males, minorities, those with a fourth grade or less ability in reading, writing, computational and communication skills, welfare recipients, rural and urban adults, the most severely impoverished, the most severely undereducated, the unemployed; the underemployed.

These adults have been unsuccessful in their prior experience and now must look to the ABE program for their opportunity to attain the functional coping skills necessary in modern society. In order to effectively plan for and work with this type of student, it is necessary for adult educators to consider the general characteristics of the undereducated adult:

- Lack of self-confidence**  
Implications    Must experience some success from the moment of intake.  
Work should be at instructional level to insure success.  
Should be allowed to set his own pace.
- Fear of School**  
Unpleasant past-experience with school.  
Fear of failure and of being tested. Lack of understanding.
- Implications    Warm, non-critical acceptance. Accentuate the positive.
- Weak motivations**  
Easily discouraged due to life history.
- Feeling of helplessness**  
Doubts ability to learn — learning is thwarted.

Effective learning by the adult student is highly conditioned by his adjustment and well-being in and out of the classroom. The realistic and satisfying progress of the student toward self-direction depends much on his growing understanding of himself in relation to the opportunities and requirements for education, work and effective living. These skills and the new awareness must be accomplished in the shortest feasible time and be consistent with good educational practices.

In order to identify the individual's needs in as comprehensive a manner as possible, each of the students entering the project is given a standardized reading test to assess reading level and areas of strengths and weaknesses, and a survey which identifies preferred cognitive styles. Based on the results of these instruments, prescriptions are prepared through which the instructional staff can better provide techniques and resources for the individual adult student.

The general objective of this project is to provide a program of instruction specifically designed for each participating student according to his abilities, cognitive style and previous experiences.

It is an accepted premise that no two people learn in exactly the same manner. It is hypothesized then that an adult student will respond better to learning situations if he is allowed to acquire information in a way that he prefers. His preferred way of acquiring information is defined as his cognitive style and is determined by the way he takes notice of his environment —

- how he receives information
- how he interprets information
- how he draws conclusions from information

It is no longer enough to diagnose academic, social and physical needs to form the basis of instruction. How a person comes to know must also be determined.

Gerardo Franciosa, 309B Project Director



What is cognitive style mapping? *page two*



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How are the students' cognitive styles surveyed? *page four*



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What is a prescription? *page nine*



How will cognitive style mapping and a taxonomy of matching reading program alternatives benefit the adult education student? *page ten*

# What is cognitive style mapping?



AN INSTRUMENT AND PROCEDURE ...

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to map a student's cognitive style ...

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to prescribe techniques and resources ...

to personalize the adult educational experience.

## How did cognitive style mapping originate?



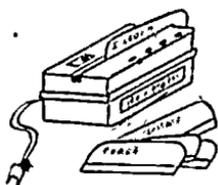
In the early 1950's, Dr. Joseph E. Hill and his associates at Wayne State University recognized the need for identifying a student's cognitive style, ways in which the individual behaves in various situations. One of his prime objectives was to develop the level of precision and accountability in education that is found in other applied fields such as medicine and law. The concept of cognitive style mapping resulted from this recognized need. Dr. Hill tested this concept primarily at Oakland Community College in Bloomfield Hills, Michigan. From this experience, a similar program has been instituted in the East Lansing Schools, East Lansing, Michigan, on the elementary level.

# How are the students' cognitive styles surveyed?



To inventory a student, a series of statements is presented to cover all elements of cognitive styles. The student is asked to consider the statements and respond.

In order to accommodate students with varying achievement levels, three survey methods have been developed.



## 1. The Language Master® (card reader)

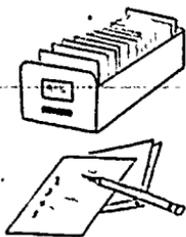
Statements typed on cards are placed in the Language Master®.

The student considers the statements and responds by putting them in boxes indicating his choices.

## 2. The Audio Tape Cassette Player

Statements typed on cards and on coordinated tapes are used.

The student considers the statements and places the cards in the appropriate boxes of his choice.



## 3. The Card File

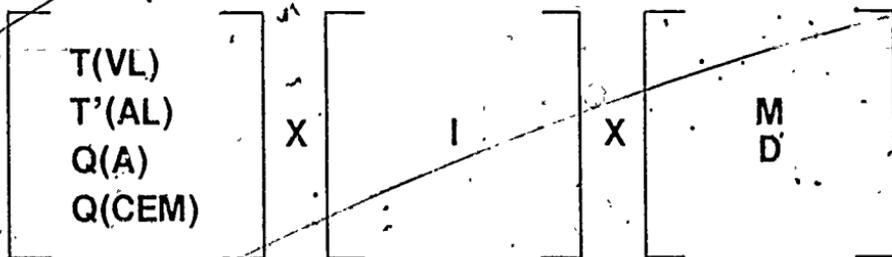
Statements typed on cards are read and considered by the student.

The student considers the statements and places the cards in the appropriate boxes of his choice.

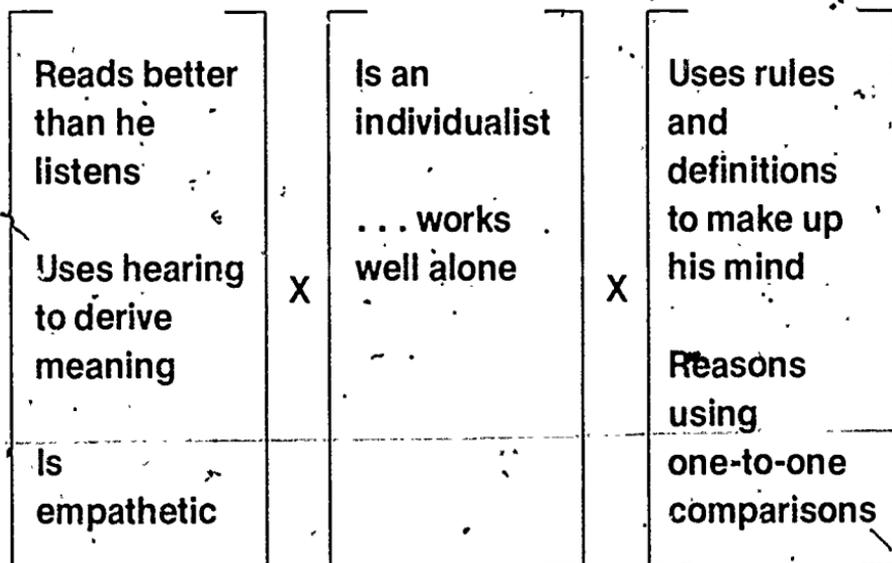
# What is a cognitive style map?



The map is a pictorial representation of a student's cognitive style.



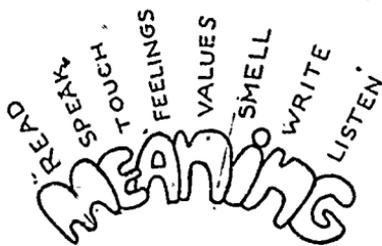
This is how it would look in writing:



# What three areas are explored in cognitive style mapping?

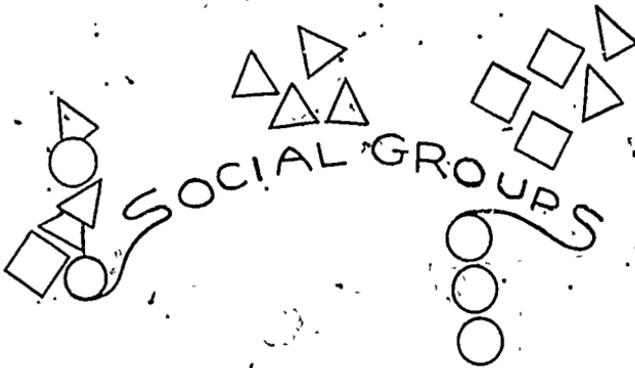


## THE FIRST AREA — "Symbolic Orientations"



The map indicates whether a student obtains meaning by reading or listening and whether he best expresses himself by speaking or writing. It also shows how much he depends on his sense of smell or touch in deriving meaning, how well he empathizes with others, how well he obeys the rules and even his ability to use gestures in speaking. These items give clues to the student's feelings, commitments, and values.

THE SECOND AREA — "Cultural Determinants".



The  
instrument  
reflects the effect  
of social groups (whether  
it be associates or family) and  
how the student perceives life. The  
student's individuality is also assessed.

## THE THIRD AREA — "Modalities of Inference"

The map illustrates the ways in which the student reaches decisions or how he reasons.

Classification,

differentiation,

multiple relationships,



adherence to rules,

methods that individuals employ in determining their course of action. These modalities are surveyed in this area of the map.

Symbolic  
Orientations

X

Cultural  
Determinants

X

Modalities of  
Inference

G =  
(Gestalt)

*How we  
receive  
information*

*How we  
interpret  
information*

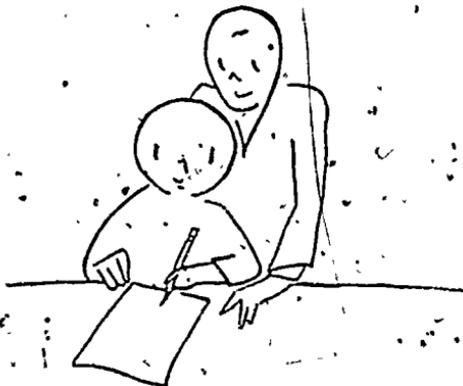
*How we  
draw conclusions  
about  
information*

G = RECEPTION

X INTERPRETATION

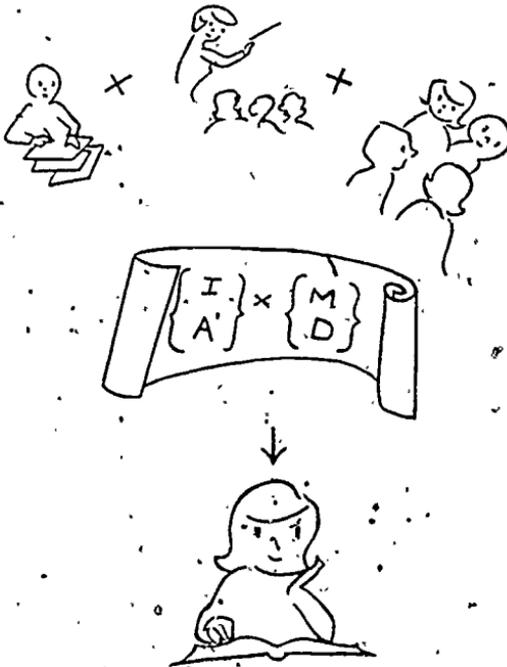
X CONCLUSION

# What is a prescription?



With the completed map as a starting point, the teacher begins the process of providing a prescription. This amounts to utilizing the student's major orientations as determined by the map to facilitate learning. In addition, the teacher will program experiences to improve the student's minor orientations so that all facets of his personality will be developed.

# How will cognitive style mapping and a taxonomy of matching reading alternatives benefit the adult education student?



Used along with standardized achievement test, diagnostic tests, teacher observations, and staff evaluation, the cognitive style map will enable the teacher to more readily identify the student's cognitive styles and the specific areas where improvement is needed. Rather than being concerned solely with academic skills, the teacher is also better able to prescribe activities that will enhance not only academic skills but also interpersonal relationships.

A committee of staff members at the Whitney Avenue Adult Basic Education Center in Niagara Falls was privileged to participate in a "Pilot Project for Cognitive Style Mapping". As a result, Niagara Falls received an HEW 309(B) grant entitled "Identification of Preferred Cognitive Styles and Matching Adult Reading Program Alternatives for the 0-4 Grade Level".

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## APPRECIATION

Appreciation is expressed to Dr. Joseph E. Hill, President of Oakland Community College, Bloomfield Hills, Michigan, creator and developer of the concept of Cognitive Style Mapping, *The Educational Sciences*.

This adaptation does not necessarily reflect the position or policy of the American Educational Sciences Association and no official endorsement should be inferred.