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# COGNITIVE STYLE: WHAT IT MEANS FOR PERSONALIZED READING INSTRUCTION

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No longer regarded by researchers as a simple set of recognizing and matching symbols, reading has come to be conceptualized as a complex and active operation in which individuals must employ their own thought and language competencies to process information (Wardhaugh 1969).

If reading is indeed a constructive process to which readers themselves make a significant contribution (Smith 1982) then two factors become imperative: the manner in which these contributions, or cognitive strategies, are activated must be examined; and, the extent to which these tendencies differ in individuals must be determined. Perhaps such study will result in improved reading instruction. To that end, this article will: (1) define that set of characteristics known as cognitive style; (2) suggest how these traits possibly influence reading behavior; and, (3) cite some of their ramifications for classroom reading instruction.

## What Is Cognitive Style?

Observation of human behavior reveals that individuals are seemingly predisposed to confront learning tasks in specific, identifiable, predictive ways. These persistent inclinations in perceiving, thinking, and problem solving are generally referred to in research literature as cognitive styles (Ohnmacht, 1970). Although many dimensions of cognitive style have surfaced as research constructs, for the purpose of this article only three will be described. Selected on the basis of their ramifications for reading behavior and instruction, these three are (1) conceptual tempo; one's rate of processing information; (2) locus of control; one's level of self-confidence and acceptance of personal responsibility for learning; and (3) mode of perceptual organization and conceptual categorization; one's degree of specificity employed in classifying information.

### Conceptual Tempo

A crucial factor in their attempt to read success-

fully is the rate at which readers habitually process information. To study this aspect of cognitive style, Kagan (1965) postulated a continuum of impulsive-reflective behavior. Readers who are extremely impulsive are characterized by careless scanning of stimuli and minimal anxiety over incorrect or uncertain responses. Reflective readers, however, tend to conduct a careful search of the text, are overtly concerned about making mistakes, and become quite anxious over receiving approval from their peers or adults.

### Locus of Control

A second possible facet of cognitive style essentially concerns which area of attention claims more of the readers' confidence--their own ability to cope with the stimuli on the page or the nature of the printed page itself. More specifically, how much confidence readers have in themselves, especially how much they believe they can control their own destiny, and how much responsibility they tend to accept for their own learning--in short, their locus of cognitive control--can be detected in a behavioral sampling of their reading. Whether the stimuli (written discourses) or the learners' concept of their own ability receives a greater amount of attention has been studied by Witkin (1962), who called this construct field-dependent/field-independent. In reading, the field (intended stimulus) is the page of print, and a learner's experiential background largely represents the non-field (learner's being, or experiential background brought to the page).

Learning to read, then, demands utilization not only of the visual cues available in and around words (field-dependence) but also of the nonvisual information or personal characteristics of the reader/learner (field-independence). Because some readers seem to rely on cue systems "within themselves" more than on the cue systems within words (phonics generalizations, conventional spelling patterns, etc.), these loci of control appear to be partial explanation for differential regard for the printed page. Some persons seem to almost totally ignore the printed page while others appear to devote extreme allegiance to it.

### Organizational Strategies

A third dimension of cognitive style pertains to the degree of specificity the reader/learner employs in organizing percepts and categorizing concepts. For

example, when readers are typically able to differentiate and analyze those stimuli (some form classes such as nouns, verbs, and certain adjectives) needed for interpretation while simultaneously disregarding relatively nonessential information (certain inflectional endings, prepositions, articles, and conjunctions) available in a total pattern, they are showing an analytic cognitive style. Indeed, not all learners seem to prefer this mode of perceptual organization and conceptual categorization; non-analytic readers, who tend to use global categories for classifying are relational in cognitive style.

#### How Does Cognitive Style Influence Reading Behavior?

That cognitive style exerts influence on reading behavior has been contended in research (Kagan, Moss & Sigel, 1963; Kagan, Rossman, Day, Albert & Phillips, 1964; Santostefano, Rutledge, & Randall, 1965; Serafica & Sigel, 1970). One implication of cognitive style inquiry is that individual children approach the reading task with their own established patterns for coping with external stimuli, the printed page being no exception. The manner in which these young readers characteristically internalize printed words thereby attaching meaningfulness will be regulated by these personalized cognitive tendencies. For in relation to their environment, these individuals are the same perceptual creatures when they read as they are when engaged in any other visual-cognitive task.

#### What Does Cognitive Style Demand of Teaching?

Although the dimensions of cognitive style cited above are by no means exhaustive, all three--tendency toward either reflective or impulsive responses, tendency toward either internal or external behavior, and tendency toward either relational or analytic treatment of stimuli--should concern anyone who dares to teach children how to read. To be ignorant of or apathetic toward readers' personal thinking/learning traits can result in their being perpetually punished just for being true to their own cognitive style.

Several ramifications for reading instruction have evolved from research on cognitive style, some of which are the following:

1. Identification of cognitive style should become an inherent component of diagnostic testing programs in reading. Incorporating such a practice might ultimately

ascertain whether all poor readers manifest a particular cognitive style. Confirmation of a possible commonality would aid in initially grouping/placing students for personalized instruction. This observance could mean the difference in whether certain students are properly or improperly placed throughout their scholastic terms, in some instances.

2. Cognitive style tests might be better predictors of reading success than are intelligence tests. Evidence for variation in cognitive functioning has been verified experimentally (Robeck & Wilson, 1974) by observing the tendency of persons of the same intellectual level (IQ score) to deal differently ("IQ function") with cognitive tasks. This renders intelligence tests relatively weak as indicators of reading aptitude.

3. Some dimensions of cognitive style appear to be more importantly related to early reading than to later stages of reading. As to which style will produce the better reader, it is difficult to predict. However, Kagan, Moss, and Sigel (1963) have hypothesized that analytic processors are more likely to realize early success in reading than are their more non-analytic counterparts. This contention is logical in that early encounters with printed discourse in formalized instructional settings typically require differentiation and analysis of similar-appearing stimuli, as evidenced in cat versus rat, saw versus was, and then versus them. Attention to such minute details automatically militates against non-analytic perceivers.

4. No proof exists for a universal hierarchy of reading skills with respect to either word recognition or comprehension. For example, reflective learners tend to be more accurate in word recognition than impulsive learners. Also, success in reading comprehension seems more closely related to field-independence than to field-dependence. As long as readers differ with respect to cognitive style, a taxonomy of skills will not be the same hierarchically for some learners as for others; reading instruction must be based on heteroarchical development. Nevertheless, skills mastery programs are predicated on the notion of a universal hierarchy of skills involved in reading behavior.

5. It is precarious to overemphasize rate of reading. Different cognitive styles might be simultaneously thwarted in the classroom. For instance, reflective readers are constantly chided by their teachers for

being slow in completing assignments, whereas at the same time impulsive readers are being scolded for committing excessive errors as a result of attempting to finish too hastily. The wisest route seems to be a minimal amount of attention to rate of reading.

6. The school's value system is often guilty of sex discrimination. Although students differ ability-wise on the basis of gender, curricular demands are seldom, if ever, tempered in light of this evidence. For instance, research has shown that girls are more field-dependent than boys (Kagan, Moss & Sigel, 1970). On the basis of such data, expectations should not be the same for male and female students.

7. All students should not be required to submit to the same response mode. Since some cognitive styles are not amenable to all manners of responding to questions, test items, and other prescribed tasks, it is imperative that all students be accepted as they are. This acceptance includes being allowed to progress at their own rate (see #5 above) as well as being permitted to express themselves in a manner which is facilitative for them as individual learners. Respecting such individuality promotes a need for certain instructional modifications in the classroom. For example, consistently unchanged formats for examinations are potentially unfair to particular students who possess a particular cognitive style. Likewise, lack of flexibility in certain classroom activities tends to honor some response modes while perpetually neglecting others.

### Conclusions

Individual differences cannot be denied. Cognitive styles account for important differences in the manner whereby children encounter the printed page. Thus, insofar as possible, programs intended for deficient readers should include strategies for increasing the flexibility of preferred cognitive tendencies without unduly coercing students to adopt a particular style that is inappropriate, perhaps harmful, for them.

Whether it transpires in a group setting or in an individualized situation, personalized reading instruction is imperative. Cognitive style demands it, for expediency as well as for fairness. Skills mastery programs, with meticulous attention to visual aspects of content and virtual neglect of individual differences, are adversaries of cognitive style and, consequently, high-risk attempts to improve children's reading.

## REFERENCES

- Kagan, J. Information processes in the child. In P.H. Mussen, J. Conger, & J. Kagan (eds.), Readings in Child Development. New York: Harper and Row, 1965.
- Kagan, J., Moss, H., & Sigel, I.E. Psychological significance of styles and conceptualization. In J.C. Wright & J. Kagan (eds.), Basic Cognitive Processes in Children, Society for Research in Child Development, 1963.
- Psychological significance of styles of conceptualization. Cognitive development in children. Chicago: Univ. of Chicago Press, 1970.
- Kagan, J., Rossman, B., Day, D., Albert, J., & Phillips, W. Information processing in the child: Significance of analytic and reflective attitudes. Psychological Monographs, 1964, 78, 1-37.
- Ohnmacht, F.W. Psycholinguistic research: A psychometric point of view. Journal of Reading Behavior, 1970, 213-231.
- Robeck, M.C., & Wilson, J.A.R. Psychology of Reading: Foundations of Instruction. New York: Wiley, 1974.
- Santostefano, S., Rutledge, L., & Randall, D. Cognitive styles and reading disability. Psychology in the Schools, 1965, 2, 57-62.
- Serafica, F.C., & Sigel, I.E. Styles of categorization and reading disability. Journal of Reading Behavior, 1970, 2, 105-115.
- Smith, F. Understanding Reading, (3rd ed.). NY: Holt, Rinehart and Winston, 1982.
- Wardhaugh, R. Reading: A Linguistic Perspective. New York: Harcourt Brace Jovanovich, 1969.
- Witkin, H.A. Some implications of research on cognitive style for problems of education. In V. Harway (ed.), The Social and Emotional Problems of the School Child. Rochester, NY: University of Rochester College of Education, 1962.