To the Graduate Council:

I am submitting herewith a thesis written by Clifton Duane Willard entitled "The Effects of the Inservice 'Dyslexia, A View From Within' on Teacher Attitudes Toward Students With Dyslexia." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Educational Psychology.

William A. Poppen

William A. Poppen, Major Professor

We have read this thesis
and recommend its acceptance:

W. Jean Schindler

W. Jean Schindler Ph.,D.

Thomas W. George

Tom George, Ph.,D.

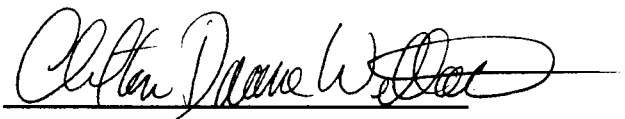
Accepted for the Council:

Associate Vice Chancellor
and Dean of The Graduate School

STATEMENT OF PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a Master's degree at The University of Tennessee, Knoxville, I agree that the Library shall make it available to borrowers under rules of the library. Brief quotations from this thesis are allowable without special permission, provided that accurate acknowledgement of the source is made.

Requests for permission for extensive quotation from or reproduction of this thesis in whole or in parts may be granted by the copyright holder.

Signature: 

Clifton Duane Willard

Date May 28, 1993

THE EFFECT OF THE INSERVICE, "DYSLEXIA, A VIEW FROM WITHIN" ON TEACHER ATTITUDES TOWARD STUDENTS WITH DYSLEXIA

A Thesis

Presented for the

Master of Science Degree

The University of Tennessee, Knoxville

Clifton Duane Willard

May 1993

ACKNOWLEDGMENTS

I would like to express my deepest gratitude and appreciation to Dr. William A. Poppen, Dr. W. Jean Schindler and Dr. Tom George, for their invaluable help, understanding, and patience in the preparation and execution of this thesis. I am especially grateful to Dr. W. Jean Schindler for suggesting this graduate program to me and to Dr. William Poppen for all that he has taught me during my tenure as a graduate student under his advisement and in the development of this project.

I would also like express my sincere gratitude and heartfelt thanks to my wife Eileen, for her unwavering support and sacrifice which enabled me to fulfill the requirements for this degree.

Thank You.

ABSTRACT

The purpose of this study was to determine the attitude of teachers toward students with dyslexia as compared to their attitude toward students in general and the effectiveness of the inservice presentation, "Dyslexia, A View From Within," in changing the attitudes of teachers toward students with dyslexia. Literature has shown that the attitude that a teacher has toward a student will determine how that teacher will act toward and react to the student. Improvement in attitude toward students with dyslexia would have a direct positive impact on students with dyslexia. A number of teachers attended a one hour inservice at which "Dyslexia, A View From Within," was presented. A semantic differential attitude measuring instrument was given before and after the inservice program. The results were tabulated and movement in attitude graphically depicted. It was shown that the attitudes of teachers toward students with dyslexia was different than teacher attitude toward students in general. It was also shown that teacher attitude toward students with dyslexia moved in a positive direction after the inservice presentation. Further testing with a larger sample is recommended.

TABLE OF CONTENTS

CHAPTER I

INTRODUCTION

The passage of the Rehabilitation Act of 1973 and particularly section 504 prohibits discrimination on the basis of disability in programs and activities funded by the Department of Education. The Americans With Disabilities Act of 1990 enforces section 504 of the Rehabilitation Act of 1973. These laws require that schools provide services to all students with and without disabilities. The emphasis in many school systems is to mainstream students with disabilities into the regular classroom. Nearly 18% of students with learning disabilities are in regular classrooms and 59.2% are in resource classrooms (Chapter 1 of ESEA (SOP) and EHA−B 1987/88 school year).

Thirty-six to fifty-six percent of students with learning disabilities drop out of secondary school (Mellard, & Hazel, 1992). The Federal Government studies have found that at least one−third, and probably one−half of the children who are convicted of juvenile delinquency are learning disabled (Gallet, 1987). Sisty percent of retained students (held back one or more years) are diagnosed or undiagnosed learning disabled (Brooks, 1993). Something is happening in the classrooms that is influencing these high rates of negative outcomes in such a small percentage of the total population.

The attitude of teachers toward students with learning disabilities contributes to these negative outcomes. Sawyer (1992) discussing students with learning disabilities referred to Simmons and states that, "Simmons believes that teacher perceptions of student's potential for success strongly effects the course of intervention and the degree of success actually achieved (page 38)." Teacher's interact significantly differently with successful and unsuccessful students. The successful students are given almost twice as much interaction and more positive interaction than students who are unsuccessful (Freeman, 1980). Students with learning disabilities by the nature of their disability are not as successful as non-learning disabled students in the classroom and therefore would receive only one–half as much interaction and less positive interaction than other students. Attitude plays an important part in this type of behavior.

Osgood (1957) defined attitude as being learned, implicit and inferred states of an organism. He also stated that attitudes are predispositions to respond and that they predispose toward an evaluative response. Attitude may then be said to be the learned, implicit mental position or feeling of an evaluative nature toward an object. Attitude is also a tendency to approach or avoid an object. One might then infer that teachers who have a negative attitude toward students with learning disabilities would tend to avoid interaction with those students in favor of interaction with more successful students.

The idea that attitudes are learned suggests that some experience or set of experiences have provided teachers with information leading to presumptions about students with learning disabilities. Good experiences would most likely lead to positive presumptions whereas bad experiences would lead to negative presumptions about students with learning disabilities.

Teacher attitudes toward job satisfaction influences their attitude toward job tasks. (Lobosco, 1992) found in: "A survey of 573 elementary school and secondary school New York teachers, including gifted and learning–disabled students, that teaching the gifted is related to job satisfaction, whereas working with learning disabled students is related to decreased job satisfaction, especially for teachers without special training." Barsch (1992) estimates that our teacher education colleges and universities only product 350 certified or otherwise judged qualified teachers to teach the learning disabled each year. This would suggest that most of the teachers teaching students with learning disabilities who are regular classroom teachers are not trained in teaching students with learning disabilities. Consequently these teachers would have lower job satisfaction and a poorer attitude toward these students than toward students in general. This would also mean that those teachers would have less success with students with learning disabilities reinforcing their negative attitudes causing a response to these students less favorable than with other students. Teacher attitude then becomes a major factor in their response to students with learning disabilities in the classroom.

Statement of The Problem

The attitude of teachers toward students with learning disabilities contributes to the negative outcome of so many of this school population. Inservice training may be a possible method of changing these attitudes and therefore the educational and post−educational outcomes of many of these students.

Research Questions

There are three research questions in this study.

1. Are the attitudes of teachers toward students with dyslexia different from their attitudes toward students in general?

2. Does the inservice presentation, "Dyslexia, A View From Within" change the attitudes of teachers toward students with dyslexia?

3. Are the attitudes of teachers toward students with dyslexia different from their attitudes toward students in general after attending the inservice presentation, "Dyslexia, A View From Within"?

Operational Definition of Terms

For the purpose of this study the following definitions were used:

1. Dyslexia. Dyslexia refers to individuals who are word blind (Richardson, 1992). This is the inability to visualize or re−visualize language symbols either printed, verbal, or non−verbal, in the mind's eye or ear.

Learning disability and dyslexia are used interchangeably throughout this project and are meant to be synonymous unless otherwise stipulated.

2. Teacher attitude. Teacher attitude refers to the learned mental position or acquired feeling with regard to a student or group of students. This mental position or acquired feeling generates a predisposed, evaluative response to a student or group of students and is an approach/avoidance response. This response can be measured using the semantic differential as described by Osgood (1957).

3. Semantic space. Semantic space is defined as a hypothetical construct that is in the form of a multi−dimensional space that includes all possible meanings of a concept (Osgood, 1957).

Significance of The Study

There has been a great deal published on dyslexia, the social problems and the many secondary effects of dyslexia. In spite of all that has been published, little progress has been made in finding any remediation technique, generally accepted teaching strategy or intervention that has had any significant impact on the overall educability or integration of large numbers of students with dyslexia into mainstream academics or society for that matter. The prognosis for individuals with dyslexia is not much better than it was twenty or thirty years ago. It is true that larger numbers are attending post secondary educational facilities, however, they are a small percentage of the overall population of individuals with learning disabilities.

Students with learning disabilities often understand little about their disability and though teachers can describe the symptoms, they have little insight into its cause or how to deal with these problems. Teacher attitudes seem to be a result of their experience with students with dyslexia and the lack of generally agreed definitions of learning disabilities. These definitions vary from state to state. They

are usually defined in terms of measurable symptoms,(e.g. a student who has a reading level two or more years below what is expected of similar students but performs on grade level in other areas). Students with dyslexia and their parents often report that the explanation they are given for this disability are statements like, the child has minimal brain damage, clogged channels, perceptual difficulties, and so on and so forth. All explanations are negative in nature and prejudicial. Students with dyslexia also report that these statements mean little to them and are not reflected in their experience.

Many factors influence a teacher's learned attitude toward students with learning disabilities. A major factor will be how they define a learning disability in terms of cause and the utility of that definition. A second factor will be understanding the relationship between the symptoms and the cause of those symptoms. A third and primary factor will be the success a teacher has with students with dyslexia. Without an appropriate understanding, ineffective interventions will be implemented which will have little success. Lack of a success will only frustrate the teacher further reinforcing negative attitudes toward students with learning disabilities. Certainly improving the attitudes of teachers towards students with language learning disabilities would be beneficial. According to Barsch (1992), only 350 teachers a year acquire certification or are judged to be qualified where certification does not exist in the field of learning disabilities. Responsible educators deeply concerned with the qualifications of teachers seek,

just as desperately as teachers do, to find methods to bring appropriate information before the "firing–line" personnel. Providing information that also fosters a more positive teacher attitude through inservice training would enable large numbers of teachers to have more success with students with learning disabilities. This may very well have a profound effect on everyone.

Limitations of The Study

The intention of this study was to determine the attitude of K–12 teachers toward students with dyslexia as compared to general students without dyslexia and to determine the impact of a specific inservice education program. The limitations of this particular study are as follows:

1. The sample was restricted to teachers who signed up for the inservice meeting and who volunteered for the study.

2. The sample who did register for this inservice meeting did so with the knowledge of the subject matter and in preference to other meetings given at the same time. One might assume therefore that this sample had some interest in the topic and forethought as to having some need or personal interest in the material. This might also indicate that this sample might not be representative of teachers in general.

3. The total number of teachers attending the inservice meeting who completed the semantic differential instrument was 16. This small number of subjects limits the conclusions and generalizations that might otherwise be appropriate.

4. This inservice presentation lasted only one hour and fifteen minutes. Considering the amount of material covered, more presentation time might effect the results.

CHAPTER II
LITERATURE REVIEW

Teacher Attitudes

Bhushan (1976) found in a study of the relationship of teacher attitude and classroom environment that the teacher's attitudes result from his or her experience. These attitudes will have a noticeable effect on the kind of relationships that a teacher creates with students in his or her classroom. The findings of Bhushan's study clarified the relationship between teacher attitude and classroom learning environment. In a classroom environment with favorable learning conditions, students become similar with regard to learning ability, rate of learning, and motivation to learn more. The contrary was also found to be true. Students in classrooms with unfavorable learning conditions became more dissimilar with regard to learning ability, rate of learning, and motivation to learn more.

Freeman (1980) studied teacher attitude toward the integration of mildly handicapped students into the regular classroom. Thirty-two successful and 32 unsuccessful students grades 3 through 7 were integrated into the regular classroom. He found that teachers interacted significantly differently toward successful students than they did toward unsuccessful students. The unsuccessful

students received only one−half the interaction obtained by the successful students. It was also found that the interaction the unsuccessful students received was more negative. He also found that there was a statistical difference in the physical distance between the teachers and the successful students and between the teachers and the unsuccessful students.

Whitaker (1976) studied the relationships between selective non−cognitive factors and the problem solving performance of fourth grade students. The study examined the connection between the mathematical problem−solving performance of fourth−grade students and their attitudes toward problem solving, their teacher attitudes and related sex and program type differences. Among the various findings was that initial teacher attitude seemed to have a greater effect on final student attitude than initial student attitude had on final teacher attitude.

In another study (White, 1990) regular classroom behavior and teacher ratings of learning disabled, low average, and average students were compared before and after LD students were placed in resource. Prior to being identified as LD there was no difference in the classroom behavior of LD students and other students as rated by outside observers. After identification and placement in resource class for one hour a day, differences in classroom behavior were observed. These differences included spending significantly less time doing school work, looking around more often, and initiating more interactions with the regular

classroom teacher than with the other students. Interestingly, teachers rated LD students less favorably than other students both before and after LD identification and placement in resource class. Changes in behavior were noted after identification which were not previously present. Consequently teacher attitude cannot be ruled out as a contributor to the sudden increase in negative classroom behavior.

Siperstein & Goding (1985) noted that teachers have strong negative perceptions of students with learning disabilities. Teachers tend to describe students with learning disabilities as "hyperactive," "aggressive," "unable to organize themselves," and "unable to accept responsibility." Teachers perceive children with learning disabilities as less desirable than non−learning disabled children. In his assessment of the differential behavior of teachers toward students with learning disabilities and students without learning disabilities, he discovered that students with learning disabilities were isolated and rejected by their fellow students and that teachers perceived students with learning disabilities as exhibiting low levels of behavior as compared to students without learning disabilities. Teachers also had more contact with the rejected and isolated students with learning disabilities but the quality of that contact was negative. It was noted that the behavior of students with learning disabilities and students without learning disabilities was not observed to be different.

Dyslexia

The interchangeability of the term learning disability and dyslexia is commonly implied by the overlap of definitions given for each. (Kavale, 1992) explains that in Iowa, LD placement procedures are based on the Rules of Special Education (1985), whereas the definition and operational guidelines are presented in The Identification of Pupils with Learning Disabilities (1982). The definition is presented in terms of a student's inability to receive, organize, or express information relevant to school functioning and is demonstrated as a severe discrepancy between the student's intellectual functioning and achievement in the areas of basic reading, reading comprehension, mathematical calculation, mathematical reasoning, written expression, and listening comprehension. These are the same descriptors given to dyslexia with the exclusion of problems in math. Levine (1984) defines learning disability as the term currently used to describe a handicap that interferes with someone's ability to store, process, or produce information. That definition would include blindness, deafness, emotional disturbance and any number of other causes for the interference in storing, processing, or producing information. Additionally this would include hyperactivity, attention deficit disorder, motor difficulties, brain injury, and so forth and so on.

Adelman (1992) suggests three types of causes for learning disabilities, Type I being found in the individual (e.g., a neurological dysfunction, cognitive skill and

or strategy deficits; developmental and/or motivational differences. Type II is found in the environment (e.g., primary environment, such as poor instruction programs, parental neglect, secondary environment, such as racially isolated schools and neighborhoods; tertiary environment, such as broad social, economic, political, and cultural influences). Type III is found in a combination of Type I and Type II.

Most of the research regarding dyslexia or learning disabilities has centered on determining the cause of learning disabilities and on finding appropriate interventions (Wetherly, 1985). Further research has demonstrated the linkage of learning disabilities to juvenile delinquency, the prison population, behavior problems and other generally negative associations (Sikorski, 1991). Barsch (1992) in discussing different perspectives on learning disabilities states that a child's inability to learn have been ascribed to: intellectual deficit, parental rejection or affective neglect, sensory impairment to sight or hearing, brain injury, damage or dysfunction of varying degrees, excessive anxiety generated by parental management, social disadvantaging which has impoverished the intelligence, physiologic dysfunction, and poor teaching.

Critchley (1978) explains that there are teachers and educational psychologists who object to the term dyslexia. Some of them assert that dyslexia does not exist: or if it does, it is outside their experience. The problem of a child's poor reading

being defined as dyslexia is brushed aside in favor of that child being a late starter, having an over anxious mother, being culturally deprived at home, lacking a domestic background which has harmony and stability, having a family that is too big, and so on. One headmaster is reported to have proclaimed that dyslexia is a euphemism for laziness. Some writers have described dyslexia as retarded reading. NIH (1986) defines dyslexic students as those who read at levels significantly lower than is typical for children of their age and intelligence. They also group the probable causes of dyslexia into three catagories: educational, psychological, and biological.

Remediation

The area of remediation is controversial and offers little success for the teacher of students with dyslexia. Hynd (1983) states that there can be no doubt that, for the reading disabled child who is severely affected, the success of most remedial programs has been dismal. Further, Brooks (1993) states that there is no evidence that remediation (for dyslexia) has any beneficial long term effects.

In a longitudinal study spanning a two year period, 415 adjudicated delinquent youths who were also learning disabled were randomly assigned to a control group (no treatment) or to a remedial intervention group. Each member of the remedial group met for one hour each week with a learning disability specialist for remedial instruction in the student's greatest functional deficiencies. The

results indicated that there was no statistically significant gains over the control group (no remediation) in the areas of academic deficiencies. Further results indicated that remediation consisting of 40 to 50 hours of instruction was significantly effective in preventing or controlling future delinquency. The beneficial effects of the remediation were attributed to the relationship between the student and the learning disability specialist (Sikorski, 1991).

Dyslexia, A View From Within

The inservice presentation, "Dyslexia, A View From Within", suggests that the correct definition for dyslexia is wordblindness and that this word blindness is caused by a variation in timing of the processing of input or output information. This variation causes the input/output processing to be "out of sync" with the rest of the system thereby causing fragmentation in the resulting perception of input information or fragmentation in the output expression of information. This output could be writing, walking, speaking, following directions or following a sequential order, and so on. Several noted experts support this view of dyslexia.

Richardson (1992) defined dyslexia as word blindness. He explains that this was the original term used to describe the phenomenon and applied to either written or spoken language disorders. Dyslexia is the inability to visualize or re–visualize language symbols either printed, verbal, or nonverbal, in the mind's eye or ear.

Livingston, and a team of prominent brain researchers reports that studies of living dyslexic people, as well as autopsies of dyslexic brains,suggest that the basis for the condition might be a failure of the visual system's circuits to keep proper timing (Blakeslee, 1991).

Reuters (1993) reports that Stephen Lehmkuhl and his colleagues' research has confirmed that the pathway from the eye to the brain that tracks overall shape, form and movement was sluggish in reading–disabled youngsters, including those with dyslexia.

Newton (1985) supported the "Sluggish" concept and states that many dyslexic children process incoming language slowly and if bombarded with too much information, too fast, may "blow a fuse".

The Semantic Differential

The method used in this study was the Semantic Differential developed by Osgood et al. (1957) and modified by Nunnally (1961). This method was chosen because of it's ability to measure attitude. Osgood states that attitude is a mediating mechanism in stimulus response mechanisms. He explains that attitude is an intervening variable between the presentation of a sign and the behavior of an individual in response to that sign. Osgood (1957) goes on to explain how associations within an individual enable one idea to lead to another. This

association is semantically determined. This being the case it has also been shown that associations depend on the meaning of the stimulus word. It is also the case that the same word may have at least for a short time, different meanings to different people. The association (word) itself however is not enough to provide an index for meaning. There must be a relationship. By providing several opportunities to respond, the semantic space can be defined and meaning broadly determined.The response to several pairs of common verbal opposites should narrow down the meaning of the stimulus sign. Each pair of bi−polar adjectives is assumed to represent a straight line function that passes through the origin of this space. A sample of such scales then represents a multi−dimensional space. By additionally determining factors such as evaluation, potency and activity, semantic space can further be defined.

Highly acceptable levels of various forms of reliability (item, factor score, and concept meaning stability) were reported by Osgood (1957). Osgood (1957) also reported high coefficents of stability of .90 or higher for mean scale values and mean profiles.

Horne (1980) reports coefficents of test−retest reliability (.87, .83, .91) have been reported in investigations of attitudes toward blacks, the church, and capital punishment (Osgood 1957). Validity studies of evaluative scales showed correlation coefficents of .74 and .82 with Thrustone scales and .78 with Guttman scales

(Osgood, 1957).

The semantic differential technique has been used by professionals, peers, and parents to measure attitude toward various exceptionalities; (Halpin, 1973, cited Horne 1980); to identify hierarchies of attitudes toward disabilities (Buttery, 1978, cited Horne, 1980); and to explore efficacy of attitude modification procedures (Brooks, 1971).

Summary

The literature contained here indicates that there is a difference in attitude of teachers toward students in general and students with disabilities, learning disabilities, and dyslexia. The literature also shows that there is no clearcut definition of learning disabilities and that there is considerable overlap in various definitions of learning disabilities and dyslexia. Some of these definitions are so vague that they could include just about anything. Remediation has also been shown to have little longterm value in improving academic performance, although relationships between tutors and students do have some positive motivational effects.

The literature does support the concepts and definitions used in the inservice presentation, "Dyslexia, A View From Within". The causes for these concepts or paradigms are also supported with recent research. It is also clear that the

semantic differential as an instrument for measuring attitude is valid and in use by professionals and researchers in various fields.

CHAPTER III
RESEARCH METHODS

The primary purpose of this study was to investigate the effectiveness of an inservice presentation, "Dyslexia: A View From Within," on the attitudes of teachers toward students with learning disabilities in comparison to attitudes toward students in general without learning disabilities. It is also the purpose of this study to analyze the findings and make recommendations based on those findings. This chapter describes the procedures used for this study.

Instrumentation

The instrument used in this study was the Semantic Differential developed by Osgood, et al. (1957). The particular scales used were developed by Nunnally (1961) for the purpose of studying the attitudes of the public toward mental-health professionals. Nunnally was able to show that the scales were not easily "fakeable." By using statistical methods Nunnally was able to offset the tendency of respondents to give the most socially correct response. This was accomplished by analyzing the relative attitudes of respondents. This tendency was further offset by protecting the anonymity of the respondents. Nunnally also suggests that a response to the concept of psychotic as dangerous, dirty, and ignorant, is not likely that; The respondent is being influenced by a desire to be socially correct.

The nineteen scales used in this study are an attempt to define the semantic

space for each of the concepts. It is assumed that these scales are representative of dimensions of meaningful judgments. In his study of the public's attitude toward mental health professionals, Nunnally determined two factors relevant to determining meaning in the semantic space. They are Evaluation and Understandability.

The scales used to determine Evaluation were Effective–Ineffective, Valuable–Worthless, Sincere–Insincere, and Dependable and Undependable. The Understandability scales were Predictable–Unpredictable, Simple–complicated, and Straight–Twisted.

Selection of Subjects

The respondents in this study were teachers employed by the Knox County Board of Education. An announcement was made through normal channels that the inservice, "Dyslexia, A View From Within," would be given on April 12, 1993 at 4:15 o'clock in the afternoon at the Teachers Center. This is a normal method of informing teachers of inservices and a non–artificial method of attracting non–biased respondents. Announcing the inservice as a study would have introduced a variable into their selection that would contaminate the results. The announcement did not indicate that a study was to take place, only that there would be an inservice meeting.

Development and Administration of the Semantic Differential

Respondents were asked to volunteer to participate in this study and assured that they did not have to participate if they did not want to. They were asked not to sign or indicate in any way their name or any identifying marks that would jeopardize their anonymity. Surveys were then passed out and respondents read and were explained the directions for filling out the survey. Twenty–three subjects completed the pre–test forms. The forms were collected subsequently so that the concepts could be compared after the presentation.

The presentation was delivered (see Appendix A). Upon completion of the presentation, the respondents were again asked to volunteer and complete a second survey. Sixteen respondents did complete the post test survey and the administration of the study was completed.

Data Collection and Analysis

The semantic differential was scored by assigning values of one to seven to each space on the scale. A value of one was assigned to the space closest to the adjective considered to be the most negative of the pair. The value of seven was assigned to the space closest to the adjective in the pair considered to be the most favorable (Figure 1). Means were then computed for each scale and graphically represented. Means were also computed for each of the two factors and also

graphically represented. The direction and distance from origin determine the position in semantic space as defined by Osgood et al.(1957). The direction is said to indicate the reaction to a stimulus and the distance from the stimulus the intensity of that reaction.

Bad 1 : 2 : 3 : 4 : 5 : 6 : 7 : Good
‹––– Direction of Attitude –––›

1. Very intensely negative reaction
2. Intensely negative reaction
3. Mildly intensive reaction
4. Neutral reaction
5. Mildly positive reaction
6. Intensely positive reaction
7. Very intensely positive reaction

Figure 1. Attitude intensity measurement method.

CHAPTER IV
PRESENTATION OF DATA WITH ANALYSIS AND DISCUSSION

The purpose of this study was to investigate the effectiveness of an inservice presentation, "Dyslexia: A View From Within," on the attitudes of teachers toward students with learning disabilities in comparison to attitudes toward students in general without learning disabilities. To collect data, four semantic differentials were administered to sixteen school teachers in the Knox County School System. A pre–test and post–test format was used. The forms were completed and collected right before and after the inservice presentation.

The data were tabulated and computed. Because of the small sample size only a graphic profile of the results comparing the means of the selected scales and the two factors is presented. The mean for each scale and each concept was computed and graphed. These means are listed in Appendix B. An analysis of the factors of evaluation and understandability was also computed and graphed.

Analysis of Findings

The first question in this study was; are the attitudes of teachers toward students with dyslexia different than their attitudes toward students in general?

A graphic representation of the comparison of pre–test means for each scale

on the semantic differential used to measure teacher attitude toward students in general and students with dyslexia is presented in Figure 2. The direction and intensity are indicated by the arrows at the top of the figure. The graph shows that on some of the scales teachers who responded in this study do have a different attitude toward students with language learning disabilities than they did toward general students without language learning disabilities. Without a larger sample however, the significance of these differences cannot be determined.

Six scales from the nineteen presented obtained ratings that were perceptively different for the two groups. Students with dyslexia were seen as being less effective, much faster, more delicate, much more tense and much less colorful, than students in general. The means for these six scales were in a negative direction and are considered less favorable than the attitudes expressed for the students in general. These teachers did however indicate that their attitude relevant to predictability was about the same with both groups of students. One may speculate that they expected these students to do poorly and they do. There was however nothing to suggest what the prediction was, just that students with learning disabilities are just slightly less predictable than students in general.

Neither group of students was seen as any more or less twisted–straight, cold–warm or worthless–valuable than the other. Only slight differences in the ratings were obtained for the following scales: excitable–calm, sincere–insincere,

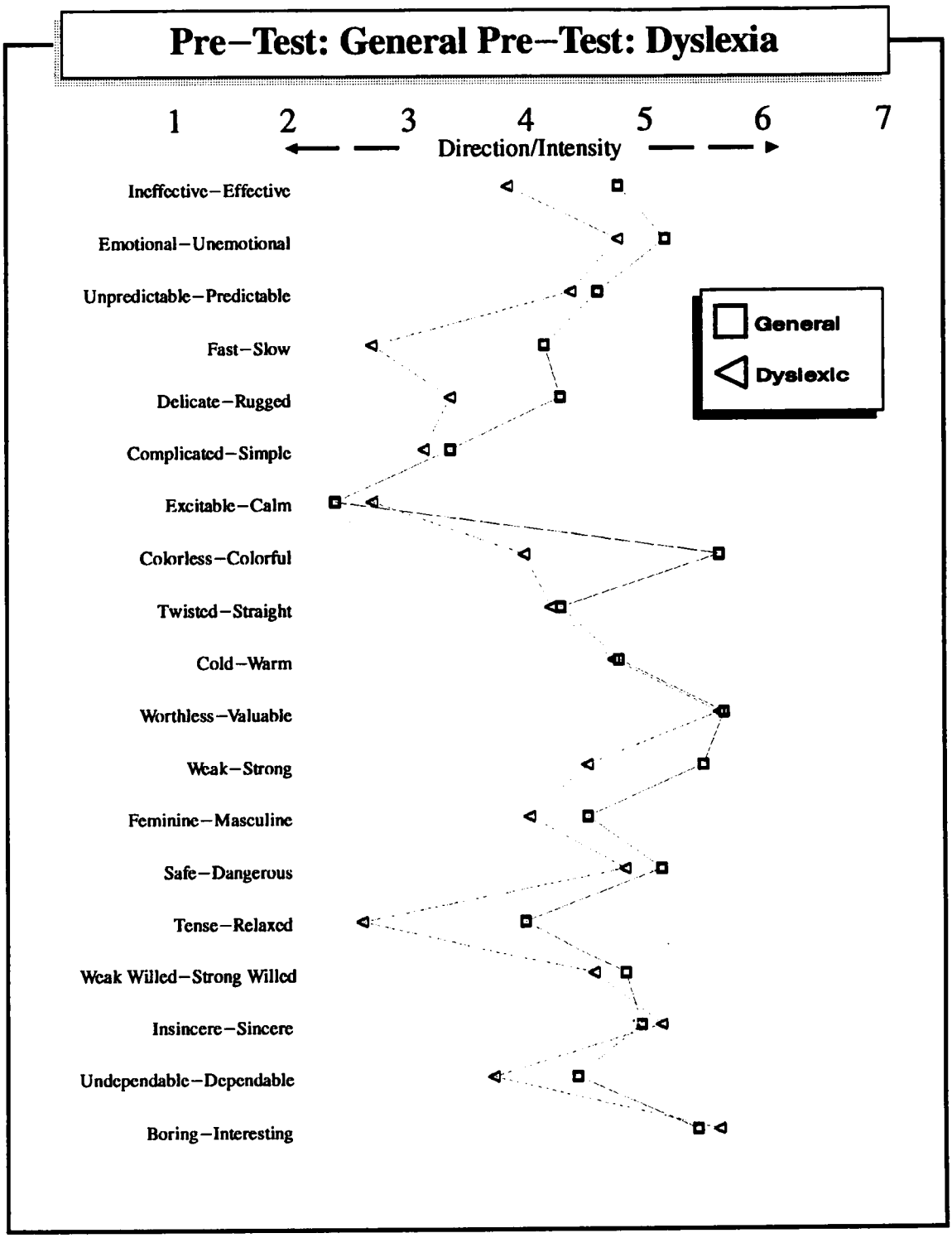


Figure 2. Pre–test general and post–test general comparison. Pre–test N=23.

weak willed–strong willed, feminine–masculine, safe–dangerous, dependable–undependable, and boring–interesting.

The students with dyslexia were seen as slightly weaker, a little more feminine and safer then the general student. They are also perceived as more tense, more sincere, less dependable but more interesting than their general counterparts. Though the causes for these feelings are purely speculative, the generally negative attitude toward students with dyslexia is clearly manifest.

The second question was; does attending the inservice, "Dyslexia, A View From Within," positively influence the attitudes of teachers toward students with dyslexia. The graphic representation of the comparison of pre and post test means for each scale on the semantic differential used to measure teacher attitude toward students with dyslexia (Figure 3.) shows that on some of these scales teacher attitudes toward students with dyslexia shifted in a positive direction after the presentation of the inservice. Again these differences cannot be said to be significant due to the small sample size. A closer analysis shows in which areas the shifts were positive.

They were viewed as more effective, less emotional, and less predictable. The shift in the predictable scale to less predictable indicates a positive shift, even though is it in a negative direction. Predictability assumes a known outcome. If a

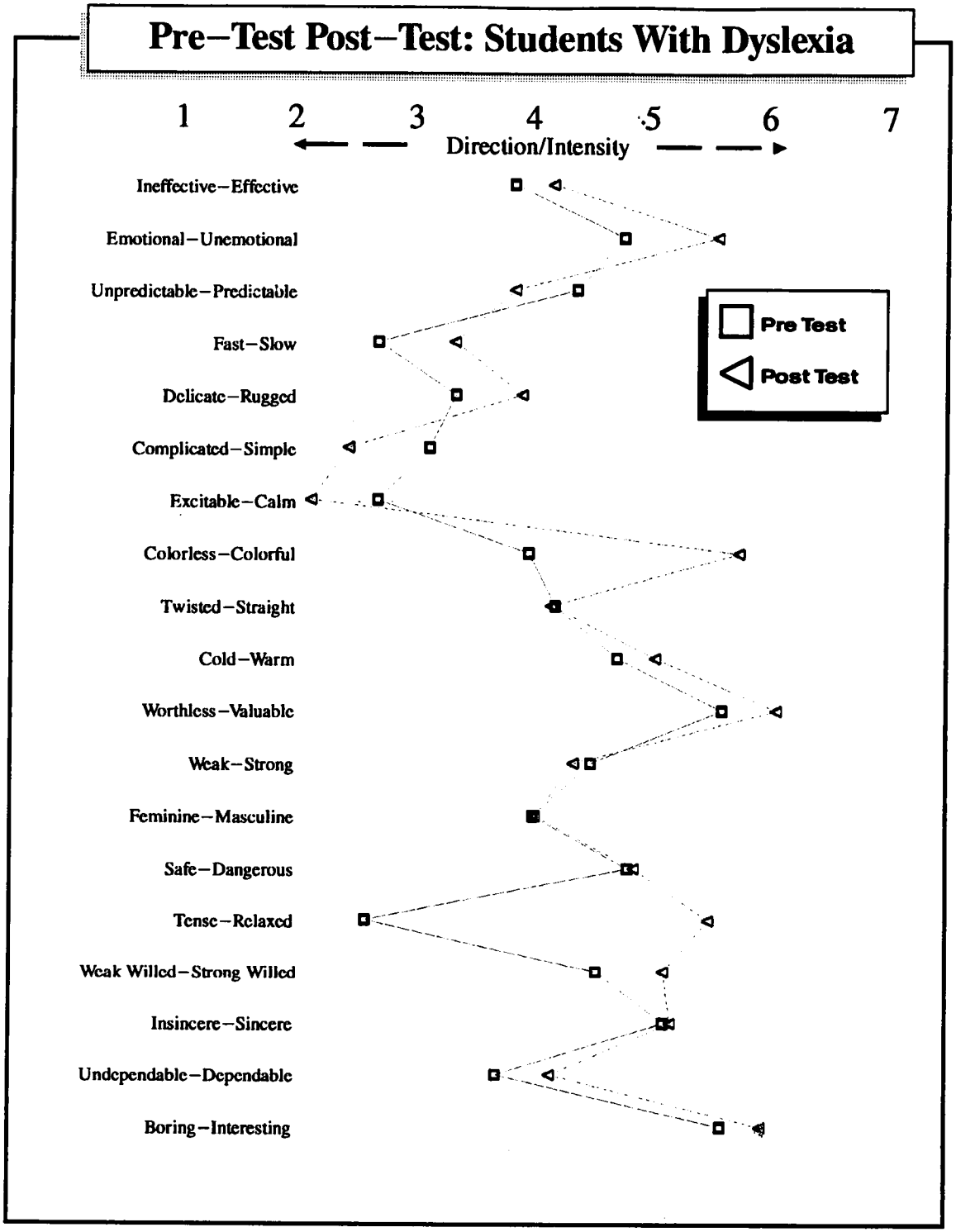


Figure 3. Pre–test and post–test comparison. Pre–test N=23, post–test N=16.

student with a learning disability is viewed by the teacher as a student who fails because he or she can't spell then when the student does fail because he or she can't spell, that student is quite predictable in a spelling test situation. However if the teacher is less certain that the student will fail, than that teacher might very well try to assist the student to learn the words and pass the test. This then is positive because the teacher will now help the student and will behave positively toward that student. In this situation, unpredictable is better and more favorable than predictable.

In this graph attitudes shifted positively toward the students with dyslexia being described as slower, more rugged, much more colorful, warmer and more valuable. They were also seen as more complicated and more excitable. Again, as with the predictability scale, these can be seen as positive shifts is this situation. Simple indicates a knowledge of or the easy acquisition of knowledge about a person, place or thing. Simple things have generally few moving parts, plain lines and most of the knowledge about them is readily apparent. Simple places also have little excitement, and little unknown.Everything seems quite apparent. The same may be said of people who are simple. They generally do little, need little and cause little attention except for their simplicity. It is also easy for a teacher to assume that he or she knows just about all there is to know about simple people. They do as expected, and cause little interest or effort by others. The equation of this meaning of simplicity to students with learning disabilities would indicate a

blind eye to the needs of those individuals and an attitude of assumption. This is by all means negative and might be the worst kind of negative attitude, that of ignoring or not seeing what is really happening. Though the ocean on a moonlit night is calm and simple in line and form, there is great turmoil and raging power just beneath the surface. Simplicity connotes no such storm or power. Seeing students with learning disabilities as more complicated might very well lead to a better understanding of these students.

The shift toward excitability may indicate an awareness of the emotional circumstances many of these students are under. This understanding would only help the teacher to provide for that student, consequently this is a positive shift.

The positive shift toward colorful might suggest an appreciation for the personality and ingenuity of many of these students. These are factors often overlooked because of attitudes about personality characteristics, motives, and behaviors of students with language learning disabilities. The presentation discussed this at length relative to the coping and compensating strategies of these students. Seeing these students as warmer and being more valuable certainly indicates a better understanding of these students with dyslexia as being like many other students without learning disabilities.

The negative shift toward weak and feminine might be an understanding that

there are some things that these students cannot do. This understanding hopefully would lead to the teaching of more compensatory strategies and coping skills. This would definitely be a plus for the students with learning disabilities.

The area of greatest shift was in the shift toward viewing the students with dyslexia as more relaxed. This may reflect more of a projection than an attitude shift. If teachers understand students with dyslexia better then the teachers might tend to feel more in control. This sense of increased control may be being projected onto the students with dyslexia as their being more relaxed.

The shift toward more strongly willed, might very well come from an understanding of the effort and determination many of these students have to exert just showing up for class every day. This was a strong point in the presentation.

The third research question was, are the attitudes of teachers toward students with dyslexia different from their attitudes toward students in general after attending the inservice presentation,"Dyslexia, A View From Within?"

The post−test comparison (Figure 4.) of these two groups of students is more parallel, showing less difference in attitude toward these students. The students with dyslexia were still viewed as less effective, more emotional, faster, and more complicated then students in general. The rest of the scales shows close proximity

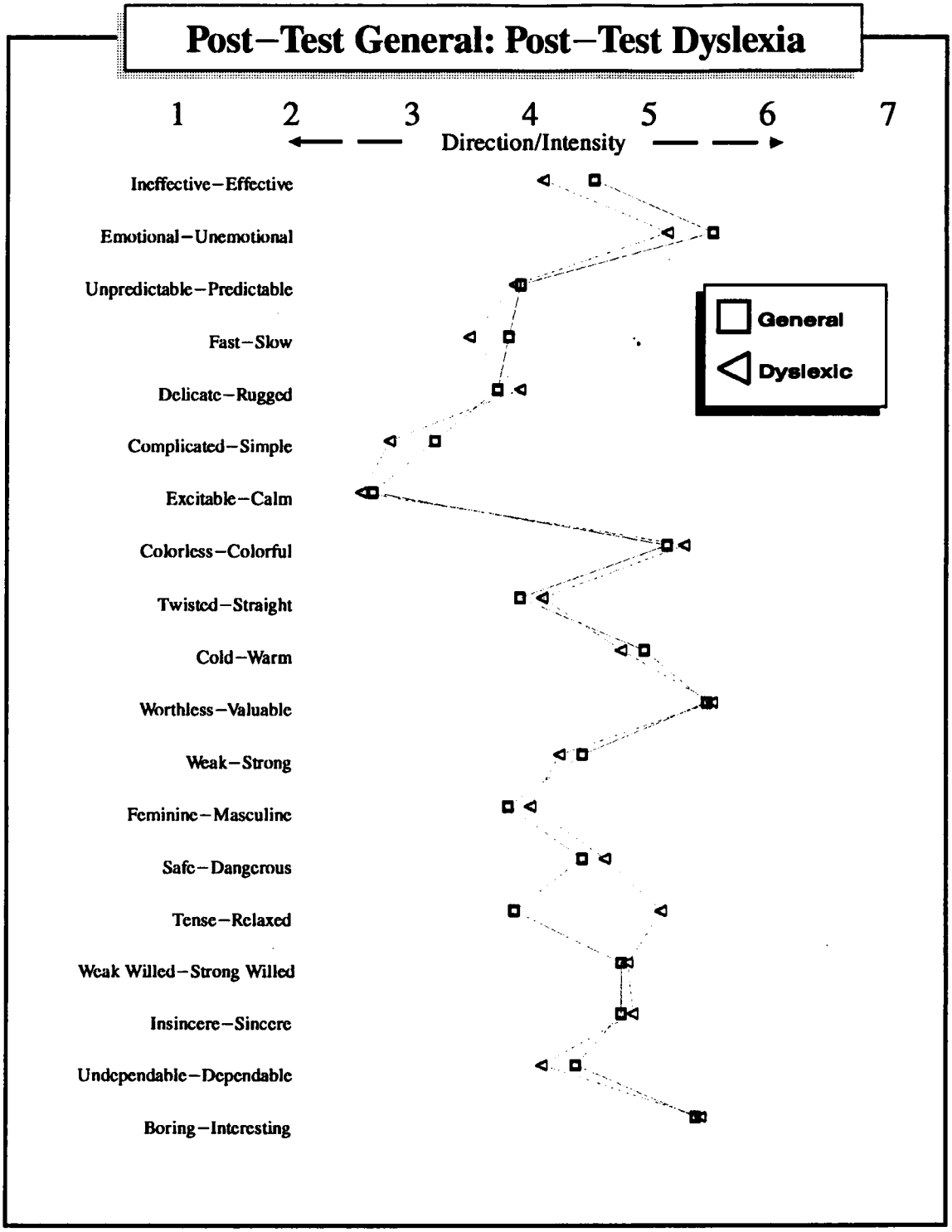


Figure 4. Post–test general and post–test dyslexic comparison. N=16.

between the two groups with one dramatic exception. The students with dyslexia were viewed as much more relaxed than their counterpart. This might be a result of the introduction of the independent variable, the inservice meeting. This close proximity might also demonstrate that the independent variable of the presentation, "Dyslexia, a View From Within," had a positive effect on the attitudes of these teachers toward their students with learning disabilities.

In this situation the inservice presentation of, "Dyslexia, A View From Within," apparently caused a shift in a positive direction of attitudes toward students with learning disabilities. Two other factors were also computed which focus on concept understandability and evaluation.

No research question was asked about the impact of the inservice presentation on the attitude of the teachers toward students in general. Some changes did however occur as shown in figure 5. The pretest and post−test comparison (Figure 5.) of the attitudes toward students in general shows some movement in both positive and negative directions. There is slightly negative movement toward faster, less rugged, more complicated, and more feminine. The other scales shifted in a positive direction or not at all. Interestingly, these teachers view the general students as slightly more interesting and much more tense in the post−test.

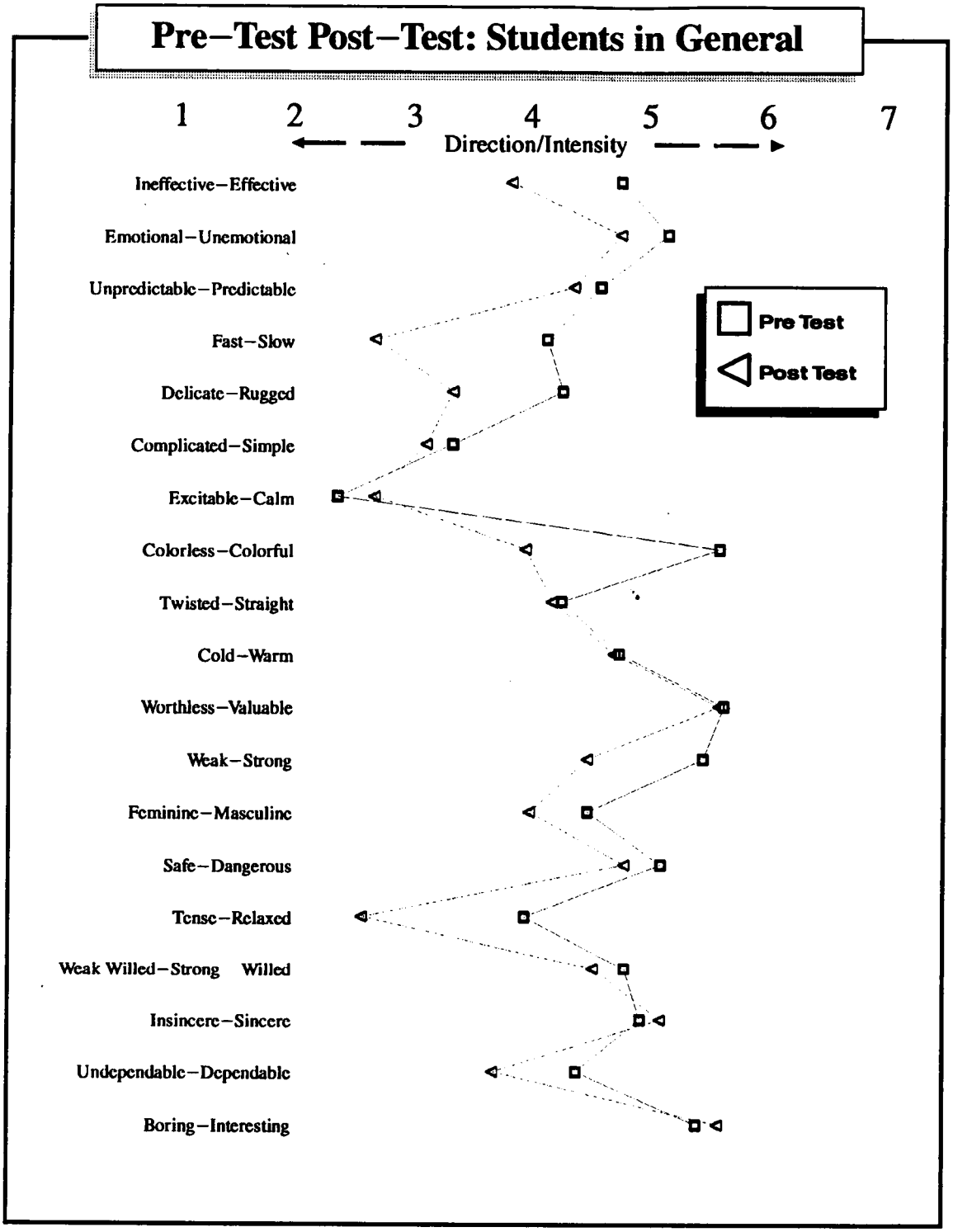


Figure 5. Pre–test and post–test comparison. Pre–test N=23, post–test N=16.

Figure 6 shows the shift in understandability factors of students in general. The two scales of the understandability factor, simple–complicated and straight–twisted did not move very much. The scale of unpredictability–predictability did however and shifted in the direction of more complicated. This may reflect a doubt about the certainty of the teacher's own knowledge about their students in general. Throughout the presentation there is a constant focus on seeing things differently. The idea that things are not necessarily what you think they are, was presented often during the inservice both visually and auditorially.

The factors of understandability (Figure 7) of dyslexic students also shifted. The factor for simple–complicated shifted toward complicated, probably because of a better understanding of the complexity of dyslexia presented in the inservice program. The factor for predictability–unpredictability shifted toward unpredictable probably for the same reason simple–complicated did. Straight–twisted did not move any appreciable amount. The shift was so small that their movement is negligeable.

The factors for evaluation (Figures 8, 9) of ineffective–effective, worthless–valuable, insincere–sincere, and dependable–undependable for the students in general and the students with dyslexia did shift in a positive direction. This shift however, was only modest.

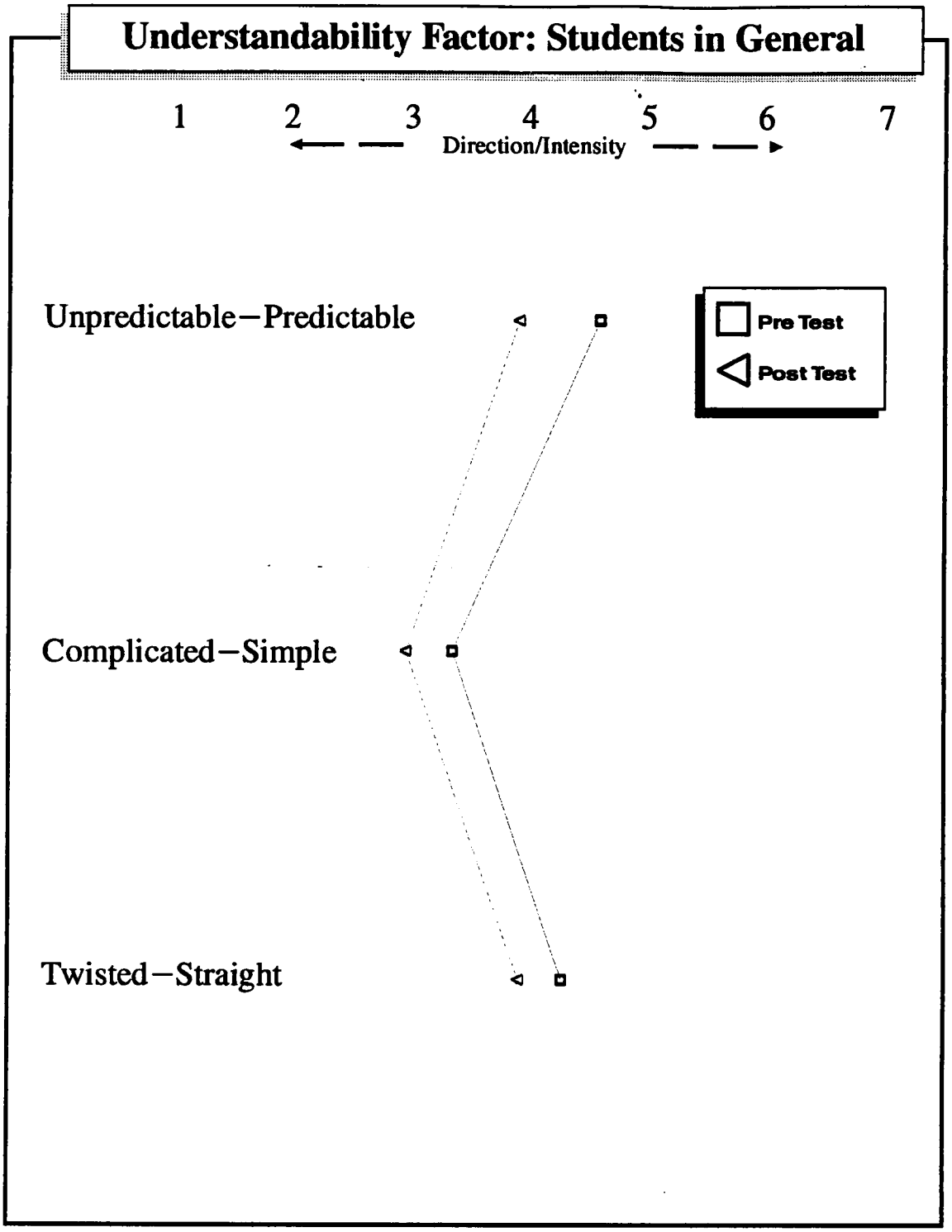


Figure 6. Understandability factor for pre−test and post−test students in general. Pre−test N=23, post−test N=16.

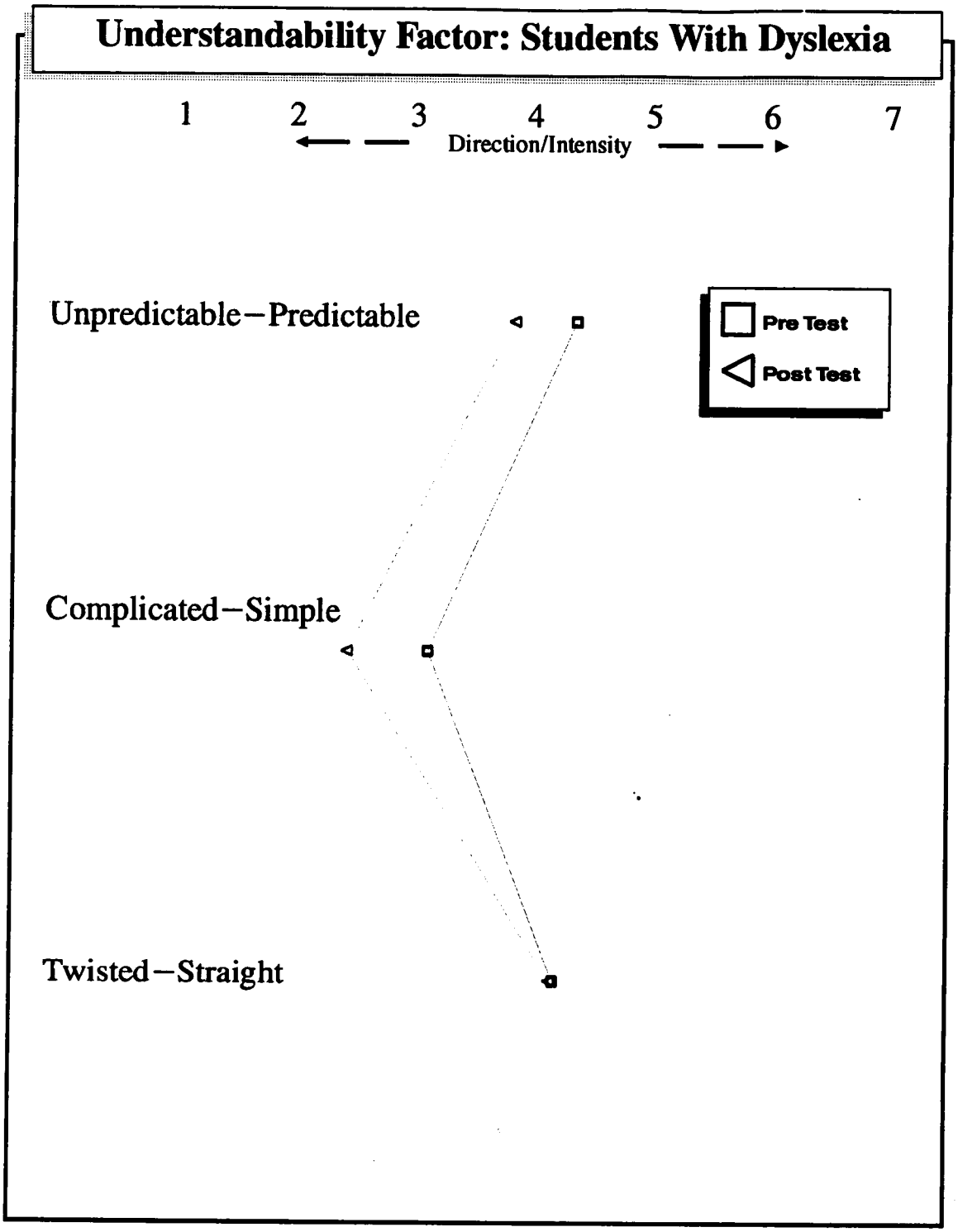


Figure 7. Understandability factor for pre–test and post–test students with dyslexia. Pre=test N=23, post–test N=16.

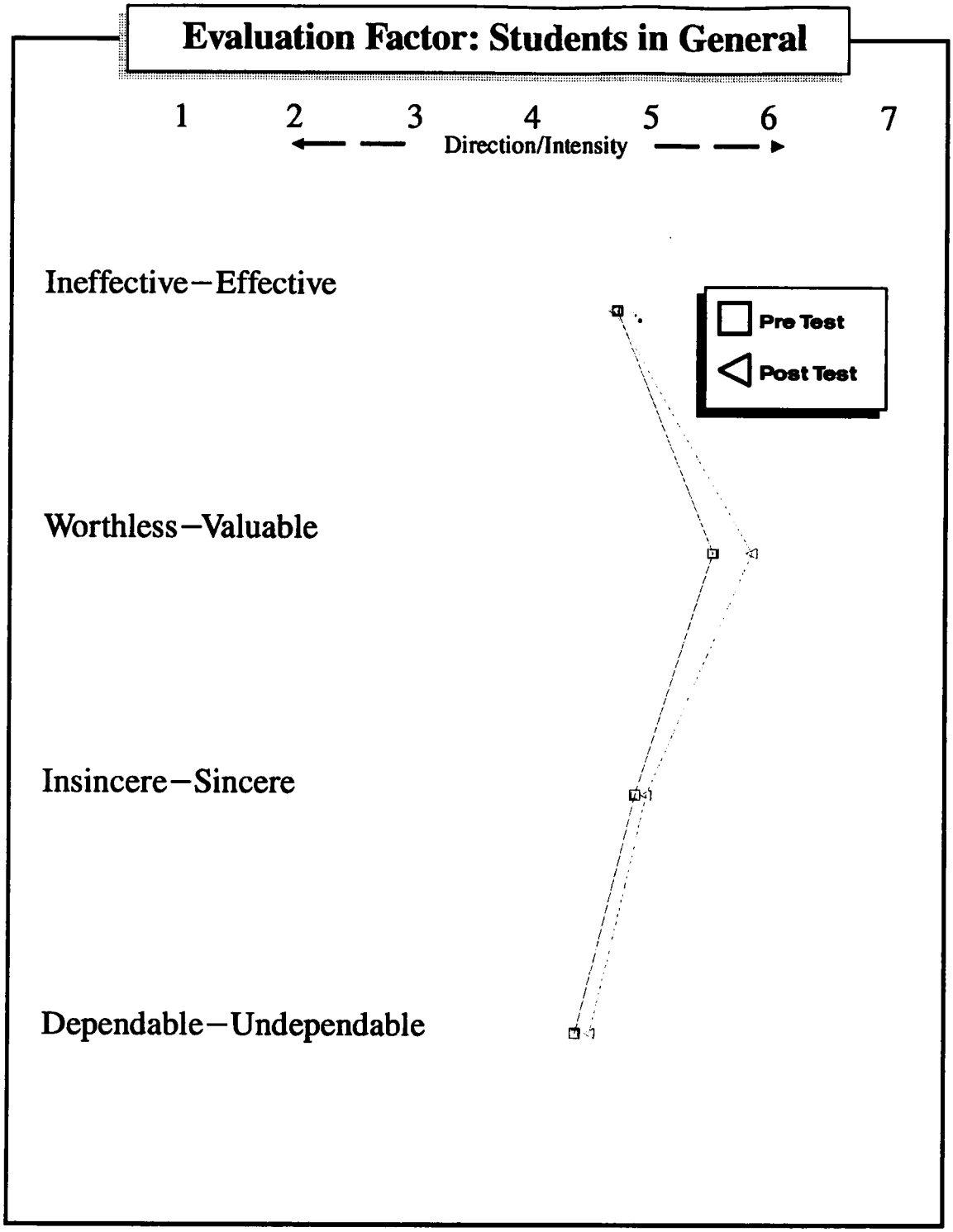


Figure 8. Evaluation factor for pre–test and post–test students in general. Pre–test N=23, post–test N=16.

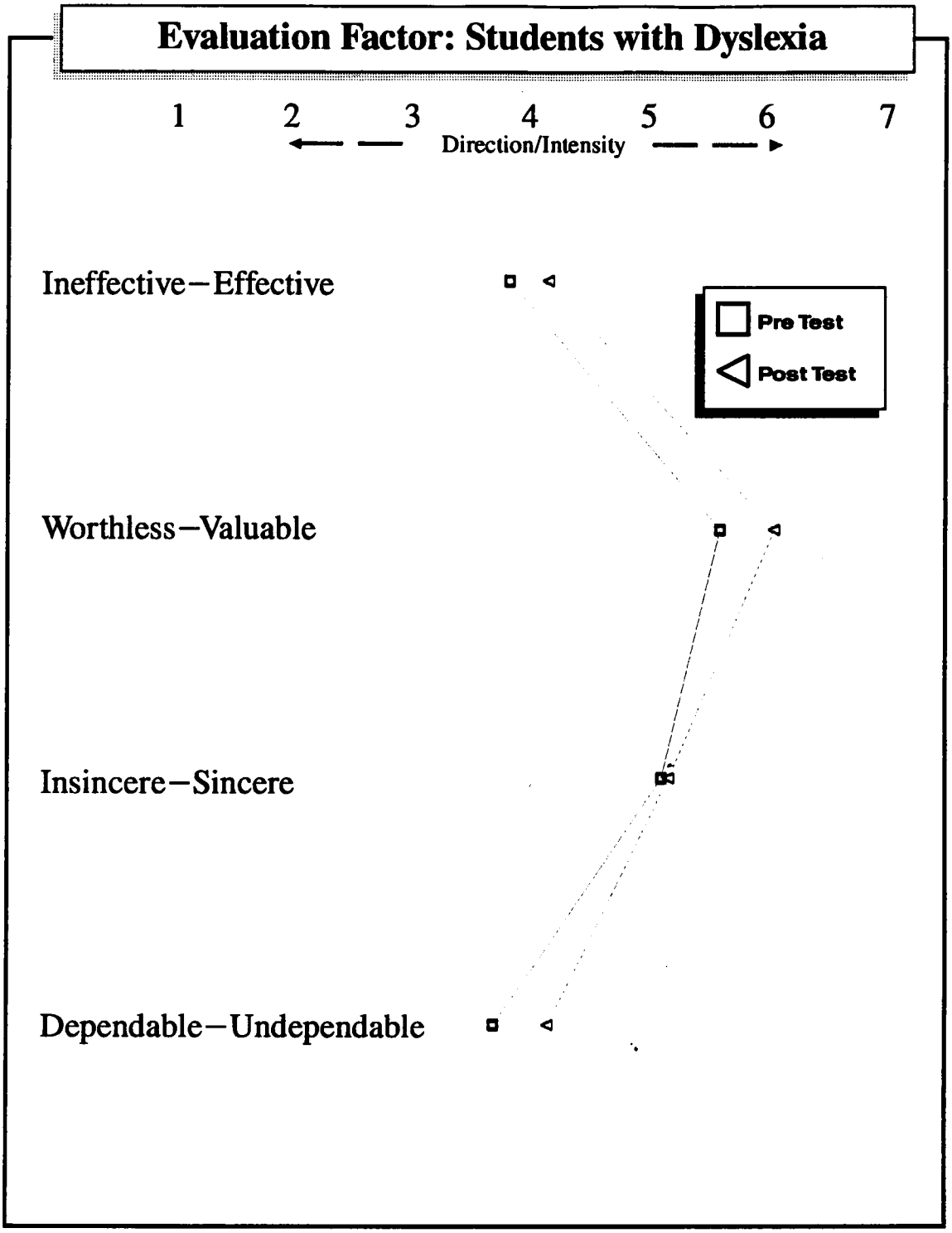


Figure 9. Evaluation factor for pre–test and post–test students with dyslexic. Pre–test N=23, N=16.

CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to investigate the effectiveness of an inservice presentation, "Dyslexia, A View From Within," on the attitudes of teachers toward students with language learning disabilities.

The subjects in this study were teachers from the local school system who registered for an inservice, "Dyslexia, A View From Within." A semantic differential method of determining the attitudes of these teachers was used at this inservice and the results of the twenty–three pre–test participants and the sixteen post–test participants in the study were computed and presented graphically. These graphs were analyzed and the score each scale discussed in relation to its movement or position on other concepts in the study.

The principle findings suggest that there was a difference in attitude of those teachers participating toward students with dyslexia than there was toward students in general. It was also found that there was a positive shift in attitude toward students with dyslexia after the inservice presentation.

These findings, though indicative of changes and differences, are only an indication in a preliminary study. The number of respondents was not sufficient to

draw any substantive statistically supported conclusions. The shift of attitudes as indicated by the ratings, was present. This movement raises some questions that lend themselves to further investigation.

Recommendations for Futher Research

Several questions and findings ask for further investigation. This study should be replicated with a much larger compliment of respondents. It would also be of value to develop a test that verified that the participants learned the major concepts presented. It would be useful to determine if more intensive exposure to the concepts contained in, "Dyslexia, A View From Within," result in greater changes in attitudes and practices.

The literature reviewed and the results of the instruments used in this study do demonstrate that generally, teachers do have a negative attitude toward students with dyslexia. This generalized attitude might indicate the real need for teacher educational programs for both special education and regular teachers to pay more attention to this segment of the school population. It would seem that the neglect of attention to the problems and nature of dyslexia in the teacher education institutions is what is reflected in the negative attitude toward this segment of the school population. The entire area of learning disabilities needs to be sorted out and the reality of these disabilities understood and taught to student and practicing teachers. The idea of grouping the many varieties of disabilities that inhibit

learning into one catagory makes no sense in light of the results of such a grouping. This negative attitude of teachers toward students with dyslexia may be reflective of the attitude manifest in the institutions that educate these teachers. These students account for a significant number of the total student population. Each student in teacher education should spend at least three to six semester hours learning about dyslexia, and the other learning disabilities. They should be taught what works and what does not work with each group. They should be able to correctly identify students with dyslexia and other learning disabilities and understand that they are for the most part no different than the general student population except for a particular area. After all we are all learning disabled in some area. No one can do everything equally well.

As this study clearly indicates, teachers currently practicing also need continuing education in this area of learning disabilities. They need to understand these students with dyslexia so that they may provide the appropriate learning strategies and environment for them. School administrators need to be vigorous in providing inservice training for this type of training.

The information gathered from further research would be valuable in developing inservices and understanding what moves the attitudes of the teachers. It would also be valuable to preform a longitudinal study to determine the long term effect of any changes in attitude. How does a change in attitude translate to a

change in behavior in the classroom? How does a change in attitude effect the performance of students with language learning disabilities and other students in general. These and other questions need to be answered for a complete picture of the effect of this inservice on the attitudes and the translation of this effect into better student behavior, adjustment, performance and less school failure for students with language learning disabilities.

BIBLIOGRAPHY

BIBLIOGRAPHY

Adelman, H. S. (1992). LD: The Next 25 Years. Journal of Learning Disabilities, 25(1), 17–22.

Barsch, R. H. (1992). Perspectives on Learning Disabilities: The Vectors of a New Convergence. Journal of Learning Disabilities, 25(1) 6–16.

Bhushan, V. (1985, March). Relationship of Teacher Attitude to the Environment of His/Her Class. Paper presented at the Annual Meeting of the American Educational Research Association, 1985, Chicago.

Blakeslee, S. (1991, September). Study Ties Dyslexia to Brain Flaw Affecting Vision and Other Senses. New York Times, p. 1.

Brigham, F. J. (1991). Generating excitement: Teacher enthusiasm and students with learning disabilities. Proceedings: Annual Meeting of The Council for Learning Disabilities, Minneapolis, MN. October 10–12.

Brooks, R. B. (1987). Storytelling and the Therapeutic Process for Children with Learning Disabilities. Journal of Learning disabilities. 20 (9), 546–550.

Brooks, R. B. (1990), Fostering Self–Esteem in the Learning Disabled Child and Adolescent: The Search for Islands of Competence. The Learning Consultant Journal, 11 28–33

Critchley M., & Critchley E. A. (1978). Dyslexia Defined. Springfield, IL: Charles C. Thomas.

Dukes, M., & Saudergas, R. A. (1989). Teacher Evaluation Bias Toward LD Children–Attenuating Effects of The Classroom Ecology. Learning Disability Quarterly, 12, 126.

Freeman R. N. (1980, April). Life in Classrooms: Teacher Interaction with Successful and Unsuccessful Pupils. Paper presented at the 58th. Annual International Convention of the Council for Exceptional Children, Philadelphia, PA.

Gallet, J. H. & Gilligan, J. (1987). Lost In the Juvenile Justice System: Learning Disabled Children & Juvenile Deliquency. Churchill Forum, X (1), p. 1,4.

Horne, M. D. (1980). How Attitudes are Measured: A Review of Investigations of Professional, Peer, and Parent Attitudes toward the Handicapped. ERIC clearinghouse on Tests, Measurement, and Evaluation, Educational Testing Service, Princeton, NJ.

Horvath, R. (1987). Learning Disabled Children In The Family court system: An Advocate's Perspective. Churchill Forum, X (1), p. 5.

Hynd, G. W., & Cohen, M. (1983). Dyslexia: Neuropsychological Theory, Research, and Clinical Differentiation. New York: Grune & Stratton.

Kavale, K. A., & Reese, J. H. (1992). The Character of Learning Disabilities: An Iowa Profile. Learning Disability Quarterly, 15, 74–94.

Levine, M. (1984). Learning Disability.....What Is It? Harvard Medical Journal, September.

Livingston et al, (1991, September). Physiological and anatomical evidence for amagnocellular defect in developmental dyslexia. Proceedings, National Acadamy of Science, USA, 88, 7943–7947.

Lobosco, A. F., & Newman, D. L. (1992). Teaching special needs populations and teacher job satisfaction: Implications for teacher education and staff development. Urban–Education, 27 (1), 21–31.

Mellard, D. F. & Hazel, J. S. (1992). Social competencies as a Pathway to successful Life Transitions. Learning Disability Quarterly, 15 (Fall)

Meyer, T. J. (1986). At America's Costliest College, Learning to Read Is a Major Accomplishment. The Chronicle of Higher Education, 31 (18), 1, 30–31.

Newton, (1985) Some Clinical Aspects of The Dyslexia Phenomenon. In Duane, D. D., & Leong, D. K. (Ed.), Understanding Learning Disabilities, International and Multidisciplinary Views (pp. 97–99). New York: Plenum Press.

Nunnally, J. C. (1961). Popular conceptions of mental health: Their development and change. New York: Holt, Rinehart and Winston, Inc.

Osgood, C. E., Suci G. .J., & Tannenbaum P.H. (1957). The Measure of Meaning. Chicago: University of Illinois Press, Urbana.

Reuters (1993, April 12). Reading Problems Tied To a Defect of Timing In Visual Pathway. Boston.

Richardson, S. O., (1992). Historical Perspectives on Dyslexia. Journal of Learning Disabilities, 25 (1), 40–47.

Sawyer, D. J. (1992) Dyslexia: Introduction to the Special Series. Journal of Learning Disabilities, 25 (1), 38–39.

Sikorski, J. B. (1991). Learning Disorders and the Juvenile Justice System. Psychiatric Annals, 21 (12) 742–747.

Siperstein, G. N., & Goding, M .J. (1985). Teacher's Behavior Toward LD and Non–LD Children: A Strategy for Change, Journal of Learning Disabilities, 18,(3) 139.

Wetherly, R. (1985). Counseling Learning Disabled Students. Canadian Counsellor/Couseiler Canadien, 19 (3), 199–207.

Whitaker, D. R. (1976). A Study of the Relationship between Selected Noncognitive Factors and the Problem Solving Performance of Fourth–Grade Children. Unpublished doctoral dissertation, University of Wisconsin, Madison.

White, F. W., Saundargras, R.A., & Zanolli, Z. (1990). LD Children's Regular Classroom Behavior Before and After Identification and Placement. Learning Disabilty Quarterly, 13, 196.

Willard, C. D. (1992). Personal conversations.

APPENDIXES

Appendix A.

Insturment

Instructions for Survey

The purpose of this study is to measure the meanings of certain things to various people by having them judge them against a series of descriptive scales. In taking this test, please make your own judgements on the basis of what things mean to you. On each page you will find a different concept to be judged and beneath it a set of scales. You are to rate the concept on each of these scales in order.

Here is how you are to use these scales:

If you feel that the concept at the top of the page is very closely related to one end of the scale, you should place your mark as follows:

Fair X : : : : : :Unfair

or

Fair : : : : : X :Unfair

If you feel that the concept is quite closely related to one or the other end of the scale (but not extremely), you should place your check mark as follows:

Fair : X : : : : :Unfair

or

Fair : : : : X : :Unfair

If the concept seems only slightly related to one side as opposed to the other (but not really neutral), then you should check as follows:

Fair : : X : : : :Unfair

or

Fair : : : : X : :Unfair

If you consider the concept to be neutral to the scale or you feel that the scale is completely irrelevant, unrelated to the concept, then you should place your mark in the middle as follows:

Fair : : : X : : :Unfair

Be sure to check every scale for each concept -- do not omit any.

Never put more then one check mark on a single scale.

Mark your first impression, do not puzzle over any items and work fast.

Your answers are completely anonymous so please be completely honest. Thank you,

Clifton D. Willard M. S.

PRE-TEST

Students in general

Insincere _____: _____: _____: _____: _____: _____: _____: Sincere

Unpredictable _____: _____: _____: _____: _____: _____: _____: Predictable

Weak _____: _____: _____: _____: _____: _____: _____: Strong

Slow _____: _____: _____: _____: _____: _____: _____: Fast

Delicate _____: _____: _____: _____: _____: _____: _____: Rugged

Cold _____: _____: _____: _____: _____: _____: _____: Warm

Dangerous _____: _____: _____: _____: _____: _____: _____: Safe

Tense _____: _____: _____: _____: _____: _____: _____: Relaxed

Worthless _____: _____: _____: _____: _____: _____: _____: Valuable

Ineffective _____: _____: _____: _____: _____: _____: _____: Effective

Complicated _____: _____: _____: _____: _____: _____: _____: Simple

Colorless _____: _____: _____: _____: _____: _____: _____: Colorful

Undependable _____: _____: _____: _____: _____: _____: _____: Dependable

Feminine _____: _____: _____: _____: _____: _____: _____: Masculine

Excitable _____: _____: _____: _____: _____: _____: _____: Calm

Boring _____: _____: _____: _____: _____: _____: _____: Interesting

Weak Willed _____: _____: _____: _____: _____: _____: _____: Strong Willed

Emotional _____: _____: _____: _____: _____: _____: _____: Unemotional

Twisted _____: _____: _____: _____: _____: _____: _____: Straight

PRE-TEST

Students With Dyslexia

Ineffective	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Effective
Emotional	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Unemotional
Predictable	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Unpredictable
Fast	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Slow
Delicate	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Rugged
Complicated	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Simple
Excitable	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Calm
Colorful	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Colorless
Twisted	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Straight
Cold	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Warm
Valuable	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Worthless
Strong	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Weak
Feminine	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Masculine
Safe	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Dangerous
Relaxed	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Tense
Weak Willed	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Strong Willed
Insincere	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Sincere
Undependable	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Dependable
Interesting	_____:	_____:	_____:	_____:	_____:	_____:	_____:	Boring

POST–TEST

Students in general

Complicated _____: _____: _____: _____: _____: _____: _____: Simple

Emotional _____: _____: _____: _____: _____: _____: _____: Unemotional

Predictable _____: _____: _____: _____: _____: _____: _____: Unpredictable

Ineffective _____: _____: _____: _____: _____: _____: _____: Effective

Delicate _____: _____: _____: _____: _____: _____: _____: Rugged

Undependable _____: _____: _____: _____: _____: _____: _____: Dependable

Insincere _____: _____: _____: _____: _____: _____: _____: Sincere

Strong _____: _____: _____: _____: _____: _____: _____: Weak

Colorful _____: _____: _____: _____: _____: _____: _____: Colorless

Relaxed _____: _____: _____: _____: _____: _____: _____: Tense

Twisted _____: _____: _____: _____: _____: _____: _____: Straight

Weak Willed _____: _____: _____: _____: _____: _____: _____: Strong Willed

Valuable _____: _____: _____: _____: _____: _____: _____: Worthless

Feminine _____: _____: _____: _____: _____: _____: _____: Masculine

Fast _____: _____: _____: _____: _____: _____: _____: Slow

Safe _____: _____: _____: _____: _____: _____: _____: Dangerous

Interesting _____: _____: _____: _____: _____: _____: _____: Boring

Cold _____: _____: _____: _____: _____: _____: _____: Warm

Excitable _____: _____: _____: _____: _____: _____: _____: Calm

POST–TEST

Students With Dyslexia

Interesting _____: _____: _____: _____: _____: _____: _____: Boring

Undependable _____: _____: _____: _____: _____: _____: _____: Dependable

Insincere _____: _____: _____: _____: _____: _____: _____: Sincere

Weak Willed _____: _____: _____: _____: _____: _____: _____: Strong Willed

Relaxed _____: _____: _____: _____: _____: _____: _____: Tense

Safe _____: _____: _____: _____: _____: _____: _____: Dangerous

Feminine _____: _____: _____: _____: _____: _____: _____: Masculine

Strong _____: _____: _____: _____: _____: _____: _____: Weak

Valuable _____: _____: _____: _____: _____: _____: _____: Worthless

Cold _____: _____: _____: _____: _____: _____: _____: Warm

Twisted _____: _____: _____: _____: _____: _____: _____: Straight

Colorful _____: _____: _____: _____: _____: _____: _____: Colorless

Excitable _____: _____: _____: _____: _____: _____: _____: Calm

Complicated _____: _____: _____: _____: _____: _____: _____: Simple

Delicate _____: _____: _____: _____: _____: _____: _____: Rugged

Fast _____: _____: _____: _____: _____: _____: _____: Slow

Predictable _____: _____: _____: _____: _____: _____: _____: Unpredictable

Emotional _____: _____: _____: _____: _____: _____: _____: Unemotional

Ineffective _____: _____: _____: _____: _____: _____: _____: Effective

Appendix B.

Tables of Means

Pre–test: Students in General Means

Pre General	Scale	Mean
1	Effective	4.78
2	Emotional	5.17
3	Predictable	4.61
4	Fast	4.17
5	Rugged	4.30
6	Simple	3.39
7	Calm	2.43
8	Colorful	5.61
9	Straight	4.30
10	Warm	4.78
11	Valuable	5.65
12	Strong	5.48
13	Masculine	4.52
14	Safe	5.13
15	Relaxed	4.00
16	Strong Willed	4.83
17	Sincere	4.96
18	Dependable	4.43
19	Interesting	5.43

Pre-Test: Students with Dyslexia

Means

Pre Dyslexic	Scale	Mean
1	Effective	3.87
2	Emotional	4.78
3	Predictable	4.39
4	Fast	2.74
5	Rugged	3.39
6	Simple	3.17
7	Calm	2.74
8	Colorful	4.00
9	Straight	4.22
10	Warm	4.74
11	Valuable	5.61
12	Strong	4.52
13	Masculine	4.04
14	Safe	4.83
15	Relaxed	2.65
16	Strong Willed	4.57
17	Sincere	5.13
18	Dependable	3.74
19	Interesting	5.61

Post–test: Students in General Means

Post General	Scale	Mean
1	Effective	4.75
2	Emotional	6.06
3	Predictable	3.94
4	Fast	3.81
5	Rugged	3.69
6	Simple	3.00
7	Calm	2.31
8	Colorful	5.56
9	Straight	3.94
10	Warm	5.31
11	Valuable	6.00
12	Strong	4.63
13	Masculine	3.81
14	Safe	4.63
15	Relaxed	3.88
16	Strong Willed	5.06
17	Sincere	5.06
18	Dependable	4.56
19	Interesting	5.88

Post–test: Students with Dyslexia

Means

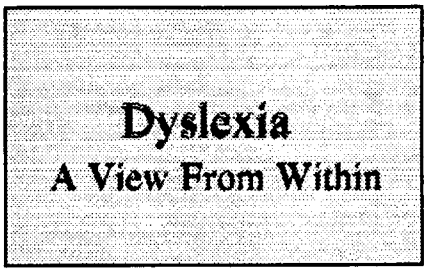
Post Dyslexic	Scale	Mean
1	Effective	4.19
2	Emotional	5.56
3	Predictable	3.88
4	Fast	3.38
5	Rugged	3.94
6	Simple	2.50
7	Calm	2.19
8	Colorful	5.75
9	Straight	4.19
10	Warm	5.06
11	Valuable	6.06
12	Strong	4.38
13	Masculine	4.06
14	Safe	4.88
15	Relaxed	5.50
16	Strong Willed	5.13
17	Sincere	5.19
18	Dependable	4.19
19	Interesting	5.94

Appendix C

Edited transcript of actual

presentation given to subjects.

My name is Clifton Willard and what I am going to present to you today is a new idea, a presentation on exactly what a learning disability is and what dyslexia is. To give you a little bit of my background, I was in 13 schools before I ever got out of the 8th grade, I never did go to high school. I have a bachelors in marketing, I have a masters degree in communications and I have a second masters degree which I hope to complete, I expect I will have a second masters degree in May in educational and counseling psychology.



My interest is to work specifically with students and adults who have language learning disabilities. I love doing this presentation in front of teachers. It is just rather ironic that I do this because I'm here and you're there. I was your worst nightmare. I was the kid that should have been getting A's and was flunking everything. I would never sit still when I was told to, I was always getting into trouble. I knew the principals and the assistant principals and the secretary in the principal's office better than I knew my classmates. That was because I spent most of my time there. I'm sure many of you think that that was inappropriate behavior, but I will show in this presentation how it really was smart behavior. A lot of the symptoms or behaviors that you see as inappropriate in students with dyslexia are really very appropriate behaviors when you understand the nature of the disability. A lot of the research that has been done, deals primarily with the cause and the

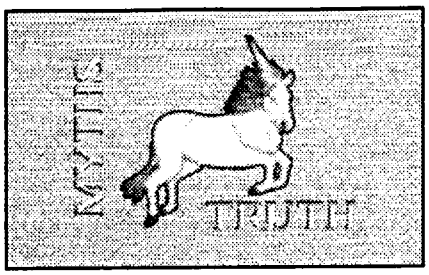
remediation. I have never found any of the research to be utilitarian. It doesn't really tell you what to do. It tells you certain people have tried certain things with certain groups and they seem to work. There is no curriculum for students with learning disabilities that is generally accepted among the majority of mainstream educators. This is one of our big problems, because every individual with a learning disability is different from every other one. There's no such thing as having a learning disability. I usually say when someone says that somebody has a problem with reading they are only seeing one part of the problem. The person with a reading problem may also have dyssemia, which is the inability to read nonverbal language. An example would be if you where standing up in front of your class and said, "alright anybody can ask me any question they want and I'll be more than glad to answer it." At the same time you look at your watch because its one minute before the bells going to ring and you want to leave. What happens? The kid with dyslexia asks you a question and it takes you twenty minutes to answer it. He's not picking up on your nonverbal language. He's picking up on what you said. The other students will pick up on the fact that you looked at your watch, you really don't want to stay, you want to go. When this kind of behavior happens it can be annoying, it can be upsetting, it can be difficult but it's easier I think if you understand what the nature of it is. The idea here of the, "View From Within" is that this model is based on my own experience as someone with a learning disability.

Several years ago Lois Simington at East Tennessee Special Technology Assess Center, asked me if I would put on a presentation about learning disabilities for a group of business men for a Knoxville conference. Without thinking, I said yes. I got home and I thought about it. I thought, "Well this is nice but what am I going to do? I said yes I would do this and I committed myself and now I didn't know what to do." I had been thinking about learning disabilities for years. I originally came to Tennessee in order to get a masters degree in special education, multiple disabilities. I completed all the course work but I didn't complete the practice teaching. I found that second graders could read and spell better than I could. Jean Shindler asked me when I started, "Clif, what are you going to do when your teaching a class and the kids can read better than you can?" I sort of sarcastically said "Jean, don't worry about it I'll get them to teach me." I spent the next two years and a lot of work in a lot of courses completing the requirements. I then began my practice teaching in a second grade classroom. Elizabeth, a student in the class, asked me how to spell a word that she had gotten wrong on a spelling test. I didn't have a clue. I didn't know. I thought to myself, "What am I doing here?" It turned out that what I really was trying to do when I came to Tennessee was to cure my disability. I figured if I knew as much as the teachers knew then I could teach myself how to read and everything would be fine. I did learn what they knew and I didn't have any better luck than they did so I've given up on that cure. I don't know of anybody nor have I ever heard of anybody who has been legitimately diagnosed as dyslexic or language learning disabled who has ever been

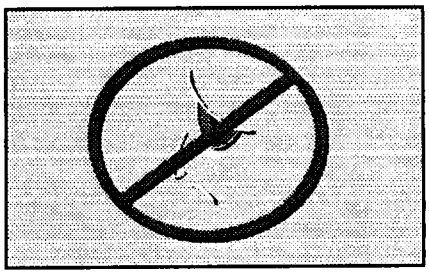
cured.

I just finished some research on the idea of using glasses and taking vitamins and eye exercises and none of it has been substantiated infollow up research, none of it. The colored glasses were actually developed to correct for color sensitivity, a problem known as scotopic sensitivity syndrome. That's not dyslexia. That is a visual problem that can be corrected.

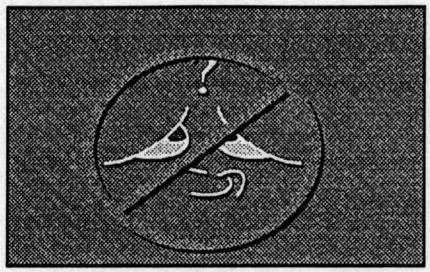
Erratic eye movement is not dyslexia. I went through that erratic eye movement business. What happened was they put lights on my eyes, I read, they watched and made a chart of what my eyes were doing. My eyes were going all over the page, so the assumption was that I had erratic movement and that if I could correct this erratic eye movement then I could certainly be able to read. Erratic eye movement was not causing the disability, the erratic eye movement was a result of the disability. I would get to the bottom of the paragraph and forget what I read, so I would go back to the top to re−read what I read. I would then go back down to where I was reading before and forget what I read in the first paragraph. I'd then go re−read that paragraph and so on. What I was doing when my eyes were going all over the pages, was trying to re−read what I read. It had nothing to do with eye exercises or erratic eye movement. Now, that's not to say that erratic eye movement will not interfere with somebody's reading. It will! However that's not what I'm talking about.



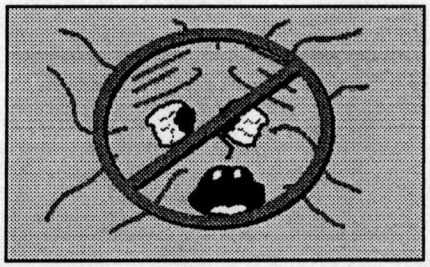
I want to get rid of some myths about learning disabilities. One myth is that parents feel they are some how responsible for the learning disability in their child. You will run into this as teachers, I'm sure you already have. I had one parent I was working with who finally had his child tested for a learning disability. It turned out that the child did have a learning disability. I asked the father why he waited so long to get the boy tested. He looked me right in the eye and said, "I didn't want a defective kid." A lot of parents feel this way. They feel that they've done something to cause the learning disability. They haven't! There is no way a parent could make any kind of a choice that would make a child dyslexic. It's a role of the dice. I'm one of five children and I'm the only one with a learning disability. All of my brothers, my sister, and both of my parents have graduate degrees. Education was a very important thing in our family. The fact that I couldn't succeed where they could was a real problem for me. My father felt that there was nothing more a parent could do for a child than provide that child with the best education possible. That's why I was in so many schools. Its important that parents understand they are not the cause of it, they didn't do anything. It is true that language learning disabilities tend to run in families. It is not at all unusual for a child to have one or both parents or an aunt or uncle or close relative that also has



a learning disability. One doesn't necessarily mean that the other is going to happen however.



Another myth is that a language learning disability has to do with poor intelligence. There is no relationship, none what so ever. As a matter of fact most of the kids who are tested and found to have either auditory or visual dyslexia, dysgraphic or have trouble with math, which is dyscalcula, have average or above average I.Q's. My feeling is and it is just a feeling, I couldn't prove it, is that those I.Q.'s are much more above average. There's a reason why I think this. Primarily the reason is that they are short on the acquisition of information. They don't pick up everything that they see. You'll understand why a little bit later. Their general overall knowledge is limited because of their disability. Normally they don't have a lot of information, but once they acquired and processed the information they're able to do something with it. This lack of processed information is due to the disability.



The other problem myth is that learning disabilities or language learning disabilities are caused by emotional problems. That isn't true. It is true however, that the learning disability can cause emotional problems. It's often said, "If this child would only solve these problems then he or she would be able to read or write or to understand oral instruction or

be able to do math." That isn't true. A lot of these emotional problems are a direct result of what happens to them when they get into the school environment. This is true not only in the classroom relative to their school work but also in school social situations where they establish poor peer relations. Many of them have poor interpersonal skills and therefore poor relationships with their peers. There's a specific reason for that and I'll get to it in a minute. One of the main things that cause these emotional problems is being constantly confronted with failure every single day and having absolutely no relief from it. I had a very interesting experience last week. East Tennessee Special Technology Access Center had a fund raiser. They put together an obstacle course. There were 6 obstacles and each obstacle represented a handicap of one sort or another. An ambulatory handicap, a visual handicap, a hearing handicap, a speech handicap, and I created the learning disability and cognitive handicap. You went from station to station and experienced each one of these disabilities. For the learning disability and cognitive obstacle, I put a little box together with a mirror in it. I asked people to read instructions which I had typed out on my word processor. I altered the text of the instructions by changing the space in between the words. I first took the space out from between all the words and then every fourth letter I'd add space back in. I asked the participants to read these instructions which told them what to do when they got to the box. In the box there was a pen and lots of paper. What do you think happened? They had trouble reading the instructions, although most, but not all, got through it at about the speed that I normally read out loud. Next they

would sit down at the box and ask me what to do. Not one of them had any comprehension of what they had just read. That's exactly what the students go through who have language learning disabilities. They read the words but don't have a clue what they meant. Why didn't they know what it meant? Because they're spending all their time figuring out the words. This is exactly what a person with dyslexia is doing when they read out loud. The instructions said that they had to write their name in script so that it was correct in the mirror. For it to be correct in the mirror it had to be written upside down and backwards. The box was designed so that when they were writing in it they could see what they were doing in the reflection in the mirror. They could only see their hand from this angle. Some people said, "I can't deal with this" and got up and left. Other people got very anxious about it. Everybody got frustrated with it, some more than others. I was surprised at how many people wouldn't do it. These participants reacted in the same way that students with learning disabilities react when they have to read. The participants either did not do the activity, finish the activity, or asked seemingly unnecessary questions given what they had just read. That's what the LD kids are experiencing every day in the classes, every single day. So its no wonder that people like me misbehave and get sent to the principal's office. When I got sent to the principal's office it was a blessing. I knew what was going to happen to me and it was O.K. I didn't have to stand up and read in the principal's office. So a lot of this behavior reflected effective coping skills and was the result of the disability not the cause.

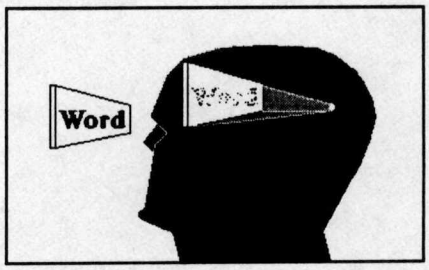
Unfortunately after a while these coping strategies which are viewed as negative behavior and trouble, begin to take on a life of their own and then you've got two problems. You've got the problem with the disability and you've also got the behavioral problem.

There is no cure. I know of no cure. Vitamins and the pills don't work. I've tried them. The reading machines don't work either. My mother worked for the Board of Education in New Haven, Connecticut. She had access to all the reading machines that were known to man and believe you me every one of them came through our house. I sat down with each one of them, even the films in the tachistoscope. Blocks went across on the screen and I was supposed to keep up with them and read the words in the blocks. I had another machine that you put the book in and a curtain moved down the pages at a certain rate. I was supposed to keep up with it. We tried another idea where you use your finger to follow along with your reading and another one was a card that had a hole in the middle and a dot on the side. You were supposed to look at the dot on the side and read out of your peripheral vision from the words that appeared in the hole. It goes on and on and on. None of it made any difference to me. I don't know of anybody with a learning disability that any of these things helped.

One thing that does happen in adolescence however, is that the disability seems to become a little less severe. I always ask people with learning disabilities, when they learned to read or write or do math or follow a verbal sequence of instructions. They almost always say the same thing. They would tell me that around adolescence they really got interested in something and they would go get a magazine or sometimes a book and they would read about it. They were so interested in getting that information they were willing to put up with whatever they had to in order to get that information, even reading. That's what I did. I read a book but I'm too embarrassed to tell you what the title of the book was, it was real trash. I read the whole thing. What prompted me was that I saw a movie and I felt sorry for this woman who was sent to the gas chamber. Turned out she was guilty as sin, but I didn't think so at the time. I was kind of a sucker for the sentiment and went and bought the book. I sat and read the whole thing, I can see myself doing it now.

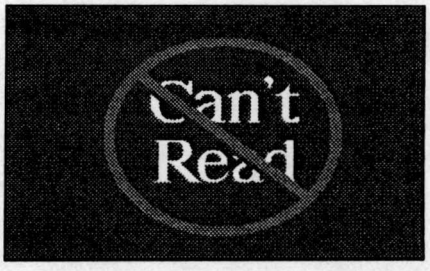
I knew how to read before then but I was not willing to put up with what I had to in order to read. After I had the experience of reading the trash book, I realized then I could. Then it became a question of "Will I subject myself to that again to read?" What you read in one hour takes me five hours to read. The only way I can get through my graduate work is to listen to my books on tape. I don't read my books, I read the literature and I read what's not on tape. As long as its not too

big, if its too much in volume I have it read. All of my books are on cassette tape. When I'm driving around or walking around campus and seem to have my head in the clouds or in the ground, listening to tapes, I'm not listening to music with my head phones, I'm listening to my text books. Actually I can listen to them twice as fast as they were recorded which is four times as fast as I could read them. I can get through material pretty quickly. For me that's amazing and it's opened up the entire world of literature and information that I just didn't have access to before. I don't even pay for the tapes or for the postage. My books are all read by Recording for the Blind. I have a slide at the end with the information on it. Now when I go to cocktail parties and people are talking about novels that they read, the Pelican Papers or The Firm, I can talk about them as well as they can because I've read them too. Before I was always left out of these conversations. I didn't have the time to read those novels, I was doing all I could do to keep up with what I had to read at work or school before I got the tapes.



There is no cure. This is what dyslexia is: It's word blindness, and that's exactly what it is. There's no minds eye for words. If you ask somebody to spell something or take a spelling test and they have to write it down, what are they doing? When you read a word and then you ask them to spell it on a test. What are they doing when they write it down? How do they know what to write down. Well I'll tell you how most of

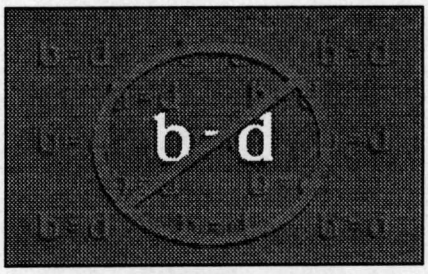
them know, or how you all know what to write down, you see it in your minds eye. You re−visualize the word and you just copy what you see. And that's generally what most people do. What do you do if there's nothing to re−visualize? How much remediation do you think it would take to learn to visualize or re−visualize. I don't know of any remediation that has any profound effect or significant effect in the long run. Robert Brooks who is clinical psychologist at McClain Hospital in Boston and also on the faculty of Harvard Medical School, gave a presentation a couple of months ago at Vanderbilt. I was really pleased to hear him say exactly the same thing. Remediation doesn't really work. I think it has very negative results. Because what your doing when your remediating someone is your making them do what they can't do. You know if you can't dance, you don't go out dancing, right? If you can't play the piano even after you have tried and studied it, you don't continue to practice. You go on to something else. These kids are constantly being asked to do what they can't do and continually remediated when it has no positive gain. It does not improve their reading any more than continuing piano lessons would help you.



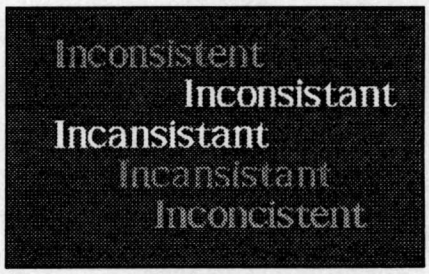
What is the major diagnostic symptom for dyslexia? One of the major diagnostic symptoms is often said to be that they can't read. That's not a major diagnostic symptom. Many kids, many people have trouble reading who are not necessarily dyslexic. They may have

trouble reading from brain damage or from a trauma to the head that may cause reading difficulties. It is important to know the difference. Remediation will work for someone who has brain damage from trauma, fetal alcohol syndrome or some other factor. Remediation however doesn't work with people who have dyslexia or wordblindness. It's interesting but that seems to be the way it is. The major diagnostic symptom then is not that someone can't read.

Is it that someone can't spell? No. A lot of people can't spell but they're not learning disabled. Some people just have trouble spelling. Do people with dyslexia reverse letters? No, they don't. What you see on the paper of somebody with a language learning disability is a "b" for a "d" or a "d" for a "b", I don't know which is which in the slide but you do. You see this and say, "Oh, he is reversing his letters." That's not correct. You reverse your letters but the person with dyslexia does not. If you wrote a "b" for a "d" you would see the "b" for the "d" in your minds eye and copy what you see. Your reversing them in your minds eye during re−visualization. In the case of the kids with dyslexia, that's not what they're doing. Therefore when you teach them not to reverse their letters, it doesn't make any sense, and, it doesn't work. The reason it doesn't work is that they're not reversing the letters. What your seeing is the result of the dyslexia or wordblindness. The cause is not that they're seeing the letters reversed.



The cause is that they don't really see the whole word at all in their minds eye. They can't re−visualize the complete word. They are guessing at what it could be just as you were earlier in the program. What else can they do? Sometimes they get it right, sometimes they don't.



The major diagnostic symptom of somebody with dyslexia is that the disability is inconsistent. How is it that somebody can have an average or above average I.Q., be on grade level in many subjects and then can't read. Or they can read, write, they can do social studies, they can do all these other things but when it comes to math they can't add two and two. Two plus two by the way does not always equal four. Two plus two only equals four is certain situations. I can show you how in some situations it can equal 8 and 12, but I won't bother today. It is easily done and is quite interesting.

People are given the battery of tests to determine if they are disabled. What will show up is that one area is two or more years or significantly below what would be expected from that person given that I.Q. and their education and environment. The other thing that is interesting about this inconsistency is the inconsistency is in it self inconsistent. How can they spell today and can't spell tomorrow? How can they read today and can't read tomorrow? Years ago when I was much younger, I was walking across the library at home with the newspaper in

my hand. My mother saw me and knew I was getting into some sort of trouble. She ask me what I was doing. I said "Oh, I'm reading the newspaper." She knew that wasn't true because I didn't read. So she said "Oh, well read me what you were reading." I was caught. What did I do? I read it. I read the whole article and I did not miss one single word. She said to me, "Don't tell me you can't read, you read that as well as I could." I did. She ask me what it meant and I told her. An hour later I couldn't have done it. That happened in the classroom too and I got the same results from the teacher. It was more traumatic because I had to read in school, I didn't at home.

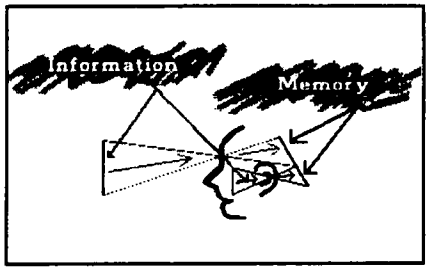
But the idea is that one of the consistencies of dyslexia is that it is inconsistent. People with dyslexia can do things today but they can't do them tomorrow. Sometimes they do them better than others. But you never know and they never know when they're going to be able to do them.

When I got my first masters degree which was in communications, I did not have my books on tape. That meant I had to read them and it was a real chore. The way I read them was to get up very early in the morning and start reading. I'd read all day until midnight or so. That was all I'd do that day, I wouldn't do anything else. That was the only way I could get my reading done. I would stop reading to go to class. But if I wasn't in class I was reading a book. That was all I could do. I had no other way to get the information. I had to listen carefully in my

classes because I couldn't rely on notes. My notes were terrible. I don't take notes now the way everybody else takes notes. I could never get the order a a b b or roman number I then A−B, then 1−2, then a−b, drove me crazy. I'd sit and try to do that and by the time the class was over I was on B trying to figure out whether it should be B or sub A. By the time I got through with the lecture I had a bunch of chicken scratch nobody could read including me and I didn't have a clue what the professor said because I was trying to figure out how to do these notes the way I was told to them. I don't bother doing that any more. Now I put a circle in the center of the page with what I think the main idea is and I just draw lines out from it and all I put on those lines are one word. By the time I'm through I have notes for an entire lecture on one sheet of paper. I do the same thing when I listen to my books. The notes that I keep with the clients that I am counseling I also keep the same way. I can look at that one set of notes and see everything that's happened from the first time I saw them right up until today. I don't have volumes of notes. It's a wonderful way of doing it because it teaches you how to network this information and how to inter−relate thoughts and ideas. That's also how many of these kids learn as you'll see in a minute.

The idea is they can't read but they can do math. Or they can do math or they can do english but they can't follow oral instructions. An example of auditory dyslexia would be if you tell a child who is sitting in your classroom to get up in front of a class and put his or her name on the black board and then go to the back

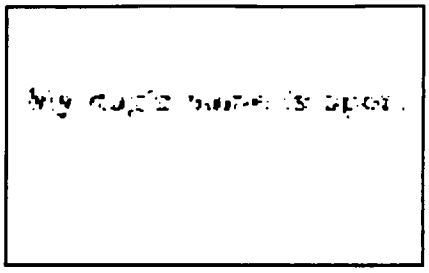
of the room and wait for the next student. When the next student gets to the blackboard, you go to your seat. What does Mary or Johnny do? They go to the back of the classroom. You the teacher then say, "Johnny I told you to go to the blackboard and write your name. Your misbehaving again." What really happened, Johnny never got the part about the blackboard and putting his name on it. He never got that. All he got was "go to the back of the classroom and wait." That was all he processed out of what you said. But what happens, he's being punished and ridiculed for misbehaving. He didn't misbehave, he didn't do anything wrong, he did what he knew to do. He just didn't have all the information you have. So he acted based on what he had. But that's often interpreted as oppositional behavior or some other negative behavior.



How do we learn? How do we actually learn? Information comes in either through our eyes or our ears and then is processed and stored in an area called memory. Essentially that's what happens. Let's say for the purpose of this presentation that that's a memory cell. There are millions, and millions and millions of them. That's where information is stored.

Who can tell me what that sentence says? Come on. How would you feel if I ask you to stand up and read that out loud? You'd be embarrassed wouldn't you?

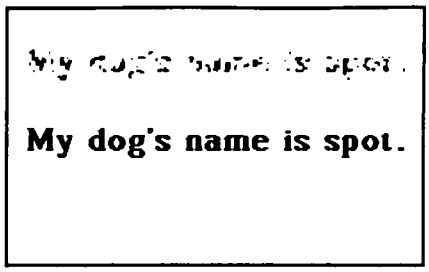
Do you think you would be humiliated when you made a mistake and everybody laughed? Huh? That is a first grade sentence. What are you all doing? (audience response) Trying to figure it out? How are you trying to figure it out? (audience response) Pardon?



"Connecting the lines." That's right. What are your options there? "None." That's exactly right. What's this word here, just that first word. My? Could it be big? Could it? Well which is it? How do you know its my? Your all guessing, you don't know. You really don't know. You're just guessing. And you know something, that's all you can do. That's all you can do. You have no other choice. That's it. You guess and you guess and you guess. Now sometimes you're going to guess right and sometimes you're going to guess wrong. And on Monday you're going to guess one way and you're going to get it right and on Tuesday you're going to have the same word and you're going to guess and you're going to guess it wrong.

In graduate school when I first came to Tennessee, I had the embarrassing distinction of handing in a two page paper in which I use the same word eight times. I would not do that today but I did then and I spelled that word differently every single time. The teacher stood up and her hands went on her hips and boy I tell you I knew it was me. As soon as I saw those hands go on her hips I knew I was in trouble. And she said, "someone in this class handed in a two page paper,

used a word eight times and spelled it differently every single time." I thought they all looked fine. If she had put all those words up on the blackboard and asked me which one of them was right I would have said all of them were right. As some person, some famous person (I don't know who it was), was quoted as saying, "If b–u–r–d doesn't spell bird, what the heck does it spell?" Andrew Jackson once said, "It is a poor mind that can only think of one way to spell a word." My sentiments exactly! They all look right to me. Why did they all look right? I could guess either way, I didn't know for sure, you never know for sure. That's the sentence. "My dog's name is spot". That's a pretty simple sentence. That is what is in the memory cell of someone with a language learning disability. All they are getting in their revisualizing and in their memory system, their storage system, are fragments of the information.



Remember I said earlier that dyslexia, a problem with reading, is not the only problem. This is one of the main reasons why a lot of these children and adults have poor interpersonal skills. How do we learn our interpersonal skills? How do you learn social skills? We're not taught them in school. Teachers don't teach them in the classes. Teachers teach discipline, but not social and interpersonal skills. So how do we learn them? We learn them by observation. Right? We learn them by experience. We learn a lot of them in the school cafeterias, or locker rooms. But what happens if that is all you're getting out of it? You watch some dude ask some

girl out on a date. Right? And if he's cool and she accepts then you think that's wonderful. And you observe and see how he's doing it. You then go out and try to do the same thing and what happens? Everybody laughs at you. Why? You did what you saw the other person do. But you didn't get it all. You only got the bits and the pieces and unfortunately you don't know you don't have it all. So you're acting on what you have and you make mistakes. Believe me, you know as well as I do, children and adults don't pick their friends based on academic success. That's not the way it works. They pick their friends based on their interpersonal relations and their social skills. If a child is constantly inappropriate in a group situation that group is going to reject that child. That's exactly what happens. Is the child being oppositional? Is the child deliberately misbehaving and being inappropriate? They are often scolded and told that they are. They're not. They're operating on the information they have. If you follow their behavior, logically and talk to them and ask them why they did what they did and follow their train of thought, you will see that somehow or another what they did, someway, is appropriate to that situation. But it's inappropriate because the other people there have more information. That's why it's inappropriate. This is what happens all the time. It happens all day long.

Often these kids do better with younger children. The reason is that there are fewer social demands. This also gives them another year or two to practice and practice and practice. They have a few extra years to learn what the child their age

has already learned. Often because of this repetition they begin to get most of it. Remediating social skills does help. But even then, most of the time, when they become adults, their social skills are not their forte. They often have difficulty working in groups. They often have difficulty in dealing with more than one or two people at a time. They usually don't like having to make presentations or having to speak up in any kind of organization. They really just never learn how to do those things and be comfortable doing them. They can however be taught how to do those things and once they learn how to do them, they're okay. You can teach someone to look for body language and to see what this non−verbal stuff is all about. If you teach them how to look for it, they'll know what to look for and they'll see it. One way of doing that is showing them video tapes of soap operas or mysteries or things with the audio turned off and ask them to tell you what's going on. The only way they can tell you what's going on is based on the non−verbal language that they're seeing. You listen to the audio to know what's going on. You can then guide them along in this way. It's an entertaining and fun way to teach them this skill. You can teach them interpersonal skills by asking them to participate in cooperative learning. But not with five other students, maybe with two other students where everybody does what they can do.

If you understand this concept, that these kids are only getting the bits and the pieces of the information, then a lot of their behavior will suddenly begin to make sense to you. Remember, there is nothing else they can do but guess. That's what's

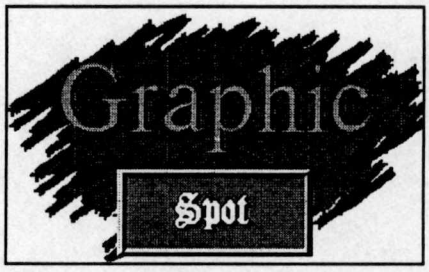
in their mind's eye. Now when they take a spelling test and go to spell a word, that's what their doing, that's what they have. That's it. They have to do exactly what you did. They have the same self-consciousness, fear, and anxiety.

One characteristic that seems to be common among adults with learning disabilities or teenagers with learning disabilities, is they seem to be self−centered. Are they really self−centered? Where does that self−centeredness come from? I'll tell you where it comes from. It comes from a sense of self−consciousness. You are so afraid of making a mistake and at being humiliated "again" that you become very conscious of every single thing you do. Sometimes to the point that you don't think about anything else. But it's not a sort of self-centeredness in an arrogant sense, its a self−centeredness out of utter fear of making mistakes. It's important to teach kids who have dyslexia to deal with failure because they're going to fail. They are going to make mistakes. Unfortunately what happens is they fail on a test, they fail interpersonally and socially, and then they fail on another test and then they fail in another social situation, and suddenly they're not failing on tests −− they become the failure. They see themselves as a failure. They are unable to succeed. One interesting thing that Robert Brooks did at Harvard was to get into this idea of attribution, theory of attribution. One of the types of questions he asked the kids was, "If you all failed a test and somebody asked you, 'well why did you fail that test?'" You would probably answer by saying, "Oh, I didn't study hard enough. I didn't feel

well that day." "I didn't study the right questions." You know you are going to come up with an excuse of why you didn't do it. But all those reasons are external. They're all something you could do something about. You ask a child who has a learning disability why they flunked a test and you know what he or she will tell you? "Cause I'm a failure." That's it. That's what I do, "I fail." That's very unfortunate. It's very important in the classroom to see that every student succeeds socially as well as academically. Remember that school is the society of children. There whole world is the school. It's their job and career until they're 18 or 21.

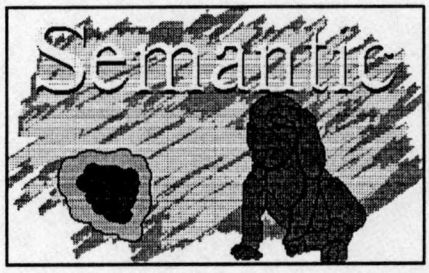
Almost half of our students with learning disabilities drop out of high school by the way and that's a shame but that's what happens. The correlation of juvenile delinquency and learning disabilities is high. In New York it is estimated that 46–60% of the juvenile delinquents are undiagnosed learning disabled students. That's very interesting, I'll tell you something else that's interesting. They took a whole bunch of these juvenile offenders who were diagnosed as learning disabled and they had them tutored one hour a week for two years. Fifty to sixty hours of tutoring for each subject. They did it for two years. At the end of two years they tested them all. All the tutors by the way were specialists trained in the area of tutoring people with learning disabilities. At the end of the two years they tested the kids and compared them to a control group. There was no significant change in their academic abilities at all. They couldn't spell any better at the end of the two years than they could when they started. However, none of them had gone back to

the juvenile court system, and they all seemed to be doing a lot better in their lives. So what was it? Well they determined that it was the interpersonal relationship the student had with the teacher or the tutor. Maybe for the first time in their life somebody was paying attention to them. Accepting them unconditionally and trying to help them and listening to them. It was this relationship that really accounted for the change in behavior of all them and none of them ended up going back through juvenile court. It cost $2,500 per student to do that. You know what it cost to keep somebody in jail for a year, $30,000. It costs another $10,000 just to retry them. So there's $40,000 in one year and it cost $2,500 to tutor these folks to keep them out of juvenile court. Seems to me it makes a lot more sense to get in early and do the counseling rather than wait until later and pay the bill.



How do we learn to read? What is reading by the way? How did we actually learn to read? Well, the first thing we do is we see words, not as words, but as pictures. As an example, when your teaching or learning cursive writing what are you really doing? One question I get from parents is, "How come my child did beautiful cursive writing and now can't even write his name? But boy he could do that cursive writing! When he was learning cursive writing he was doing a wonderful job." Well what do you think the reason for that was? Cursive writing isn't writing, it's drawing. These kids can normally draw very well. They're learning how to draw the perfect circle. But

that's drawing pictures, that's not a symbol for a word it's not a metaphor for something, it doesn't represent something. So words are pictures initially. After a while the word becomes a symbol for a meaning, Assuming you don't have a learning disability, you read semantically. When you read you really don't see the word. You know the meaning. Reading is not taking in new information at all. Reading is a process of recalling what you already know. You can't possible know the meaning of Spot unless you knew it before. You are recalling what you already know. When you see that word you recall what you know that symbol represents and you have a meaning. The particular meaning of the word is dependent upon where it is in the sequence of words in the sentence. That's really what reading is, recalling.



The reason that you know Spot is the name of a dog and not a spot on the carpet is because of the context of the sentence and it's placement in the sequence of words in the sentence. If you're reading a book, each sentence gets its meaning based on the sequence of the meanings you recall. That's what gives a sentence its meaning. What gives a paragraph its meaning? You combine all of these sentence meanings in the sequence they appear in a paragraph and you have the meaning of the paragraph. The sentences in the paragraph may be in such an order that you see new relationships among the meanings you already know. But you can't read

unless you know the meanings of all those words. Knowing the meanings as you see the symbol is reading semantically. Dyslexics never read semantically. They never make the bridge between from the graphics to the semantics. They often don't have all of the meanings of the words. For instance, a child may be playing with a friend in your neighbor's living room and they're drinking coca−cola. One of the kids spills a coke on the new white carpet. The mother comes in and seeing the stain in the carpet asks,"Who put the spot on the carpet?" The LD child replies, "I don't see any dogs!" What happens? Everybody laughs at him just like you just did. He doesn't know that a spot can also mean a stain on the carpet. He just knows that his dog's name is Spot. You can teach these additional meanings but don't assume he knows them. Is his response appropriate or is it inappropriate? It's really appropriate.

Let's talk about spelling tests. I hated spelling test, maybe that's why I'm bringing up this point. What happens when you give a child a spelling test with ten new words on it he or she can't spell? He/she is going to fail. Some teachers will then say that because the child's dyslexic, "I'll give him only five spelling words instead of ten." He didn't do any better on the five than he did on the ten. Is that really helping that child? Wouldn't it be better to find five spelling words you know he knows, you know he can spell correctly on a repeated basis. Now, give him a spelling test with the five words you know he knows and three new words. He will now not fail even if he gets the new words wrong. He doesn't have to face another programmed failure. You're at least giving him an opportunity to succeed.

If you have a student with dyslexia stand up and read in out loud in class, are you teaching that student to read? No, reading out loud is word calling and has nothing to do with reading or comprehension, it's just word calling. What do you think this child is doing while the other students are reading out loud? This child may start to misbehave when it gets around to his turn. He is probably rehearsing how he is going to act when they get called on. Instinctively of course his eyes go right to the floor in anticipation of utter humilation because he can't read out loud. If on the other hand, you don't ask the child with dyslexia to stand up and read in class you're isolating that student. You're saying to the rest of the students he can't do that. This reinforces the idea of negative difference. So what do you do? I have a suggestion. You tell that child with dyslexia, "Look, I'm not going to ask you to read when we do our reading in the class, I will never ask you to do the reading out loud. But, I am going to ask you to tell me what the others have read. You're going to have to stand up and say what others have read and paraphrase it in your own words. Maybe not the whole thing, but certainly part of it." Now what's happened? Is that child excluded? No. Are you pointing out to everybody in the classroom that this child can't do anything? No. Are you teaching that child something that is vital to his education? Yes, listening. This is very important, your giving that child an opportunity to develop his auditory skills. These skills can be used to compensate for his inability to read.

What else are you doing to that child? You're including that child. That child

now is becoming a member of the community. Community is the idea of inclusion. Not the idea of exclusion, that's not community, that's elitism. A classroom environment really needs to be a community where everybody is included. It doesn't take a lot of work to tell the child to explain what he's heard as opposed to asking him to read. It's not that much more work. But these little things, as simple as they may sound, can be very very important to that child. That reading class is not something to be terrified of anymore.

There's a book called, The Self–Esteem Teacher, by Robert Brooks. What he is saying is that you need to find a student's area of confidence. You've got to find out what these kids can do. One of the biggest shocks to me when I started dealing with kids with learning disabilities on a counseling basis, was when I would sit down with the parents and the parents would spend a half an hour or an hour or an hour and a half telling me all the problems they're having with this child, all of the things that this child can't do, all of the failures, all of the troubles with the schools, their friends and with the other parents. Finally I would get to the point to where I'd heard enough. I would then ask them to tell me what their child does well? You know what, they haven't got a clue and neither does the child. That is not limited to children in grammar school, elementary school, or high school. I had a 51 year old man call me up the other day who has a learning disability. We talked for a while and he told me of all his problems. I ask him the same question, "what do you do well?" He didn't know. He had no idea. Now I can not believe,

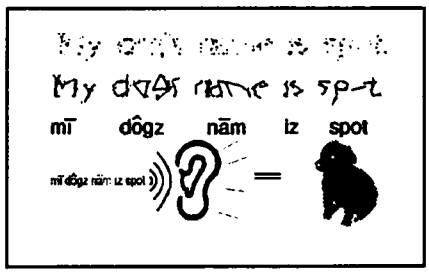
I don't care how disabled somebody is, that there isn't something they can do well. I don't care if it is just setting up the chairs in the classroom or organizing something. That is so important to give a child the opportunity to do something well. Believe me that will go a long way in helping them do better in their school work.

Minor alterations in the classroom can relieve the anxiety of the learning disabled students. You may even start to see an improvement in their work. How hard is it to figure out what that word (referring to a slide) says? Just think of all the anxiety that they're under. At least when the anxiety is lowered, they will have a better chance to be good guessers and even apply some of the rules you taught them. If you really want to teach them how to read don't teach them how to read in the normal sense, teach them how to pronounce the words. Teach them how to break words into syllables so they can pronounce them out and hear them. Teach them how to diagram sentences. I don't think they teach diagramming sentences anymore. When I was in school we learned how to diagram sentences with the subject and the verb, you draw the lines down for the adjectives and so on. That was one of the best lessons I ever had. Today when I get to a sentence I can't read I can break it up into it's parts and put it back together another way so I can understand it. If a sentence begins with the word that, I haven't got a clue what the sentence means. I don't know what notwithstanding means either. I have looked it up many times and I still don't know what it means. If can't figure out a sentence,

all I have to do is take the whole thing apart and rearrange it in a way that I can understand it. It works every time.

When I do read I keep a Franklin Language Master 4000 next to me. The one that I have talks to me. Not really. But I type in a word and if I don't know what the word is, rather than try to figure it out, I just type it in and push "say" and it will sound out the word for me. Once I've heard the word I'll know exactly what it is. My auditory vocabulary is very large. Again, it's important to teach these kids listening skills. Teach them to develop their auditory vocabulary, how to manipulate words in sentences so that they can get the meaning, and how to break words up so they can sound them out.

This is how someone with dyslexia reads (referring to a slide). This is the process. When I first started making this presentation people would ask me, "how do you read?" Understand that someone who is dyslexic is not illiterate. They can read, they just don't read very well. But they can do it. That's an important point. Someone who is dyscalculic can do some math. Its much better to teach these students with discalcula how to use a calculator. It is also better to teach these kids with dyslexia how to use a spell checker than to remeadiate them an hour a day one day a week for 10 or 15 weeks. Isolating them by remediating them and keeping them in when



they should be out playing with their friends isn't going to help them. They need to be out playing learning the social skills they really need. In some respects social skills are more important than how to spell. By remediating them, you're making them do something they can't do. You're constantly frustrating them, they know they can't do it but they try to do it anyway. Is it better to do that, or to spend twenty minutes and teach them how to use a $25 spell checker the size of a credit card? I take my spell checker everywhere I go. If I don't know how to spell a word and often I don't, I use the spell checker. When I did my internship last year at a hospital I had to write notes and charts. The first day, I went to put the notes in the charts and I wrote 1 and 1/2 pages. I really should have written only a paragraph. Why did I write 1 1/2 pages? Because I couldn't spell the words I wanted to use. So I spent a lot of time writing out their definitions. I used lots of little words to try and say what I could say verbally in one or two words or a sentence or two. Believe me, when I went in the next day I had my Spelling Ace with me. When I sat down to do the patient notes, I did them in a sentence or two just like everybody else did and everybody was delighted.

This is a picture of how a person with dyslexia reads. You connect the dots until you see the picture. Once you see the picture you sound it out. You sound out the picture until you hear the word. Once you hear the word you know the meaning. And that's the route it takes. By the way, almost every single language learning disabled or dyslexic person that has seen this presentation identifies with

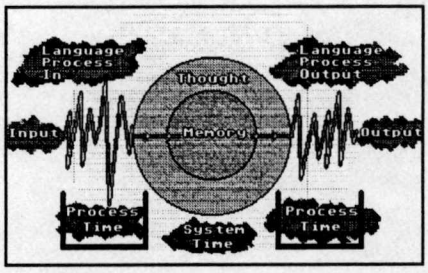
it. They don't identify with things like clogged channels, minimal brain damage and that kind of explanation. Minimal brain damage or clogged channels, make no sense to them nor does it match their experience. By the way, there is no research anywhere and no proof anywhere that there is any brain damage, none. They've never been able to find it. It's speculated by a few individuals but you don't know whether that's the cause or the result. So there's no evidence that there is any brain damage. Anyway, that's the process. It's interesting that they all identify with it.

I showed this program several years ago at local middle school. I presented it to 250 students. When I put that sentence up there a little boy stood up in the front row and said, "That's the way I hear." That child's got auditory dyslexia. This was in February. He tried to get an appointment with a guidance counselor, in June he still hadn't seen her, she hadn't had time for him. That's a crime. When that boy stood up and identified with that image, I knew that other people with dyslexia see the same thing. That's been pretty consistent over many presentations.

Learning disabilities are relative by the way. There's a country in Africa that only got a written language in 1978. If I lived in that country in Africa I wouldn't have a learning disability. Prior to 1978, there was nothing to read and nothing to write. How many of you can sit down at the piano and play Rachmoninov's

Eighteenth variation on a theme of Paganini? What if you had to do that in order to graduate from elementary school? Ok, let's say from college? How many of you would graduate? How many of you think you can learn to play that? I can. Now whose learning disabled? Learning disabilities are relative. In our culture we are fundamentally a language based society so we learn through written language. An inability to be fluent in that written language is called a learning disability. An inability to be fluent in the performance of written music, the language of music, is not.

Here's what I believe is the cause of dyslexia. This is the type of language we're discussing here, which is the input information. The output of language is behavior that we see or hear. Reading, writing, the talking, the action are all the output of language. By action I mean a response to language in the form of behavior. This response may be to what someone has read or been told. The people that read my instructions at the East Tennessee Special Access Center obstacle course were supposed to do some action after they read the instructions. Instead, the action was to say to me, "What am I supposed to do?"

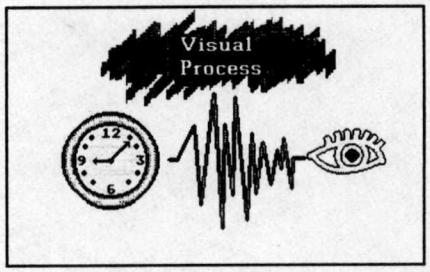


Input information comes into the system through your eyes or ears essentially and then it's processed. It takes a certain amount of time for this process to take

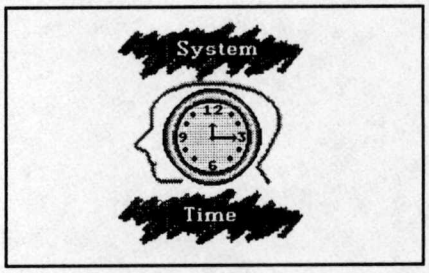
place. We are not into quantum mechanics here, it is an analogue type process. It doesn't just sort of happen. It takes time to process. Once it's processed it goes into the thinking and memory area. I have the thinking and memory in the same area. I don't really buy the idea of short term, long term, middle term memories. I think that one of the problems we have generally in our society, but primarily in education, is we disassociate things. We want to break everything up into boxes. Because computers work that way we think we ought to work that way and I don't think we do. I believe that thinking is a function of memory and memory is a function of thinking. They're one in the same thing just approached from different angles. I don't think there's any difference in memory and thinking. They're all the same thing. It just depends on how you look at it. Let's say that you have a glass of water that is only partially filled. Is it half full or half empty? Well that depends on how you look at it. So thinking and memory are primarily the same thing. It's thinking if you look at it one way and memory if you look at it another. But I don't think you can separate the two. I think that's important. What I'd like to see in education is a focus on associating things together rather than the disassociation of things. We have boxes where we teach history and other boxes where we teach English and still boxes where we teach math. When the students leave the big box containing all of the smaller boxes, and go home, they don't associate what they learned in the other boxes with what they are doing in this home box. You don't do those things in the home box, you just do them in the big box called school. There's no relationship in what they do here and what they do outside. An

interesting thing is there's no correlation between academic success and post−academic success. That bothers me but it doesn't seem to bother other people. As a student, I really want to know what I need to in order to do well after school, not just in school.

Anyway, for output behavior the information has to be processed. What we see is the result of that processing and the result of the thinking and the cognitive processing as well. Writing, behavior, and speaking are all output behavior.

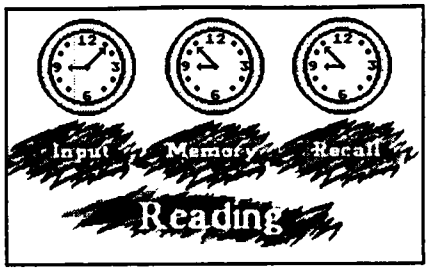


Let's say that this represents the time it takes to process visual imaging and this clock represents our central system operating time. We all have the same central time, our hearts beat at the same rate, we walk pretty much at the same speed, we all dance to the same rhythm, those of us that dance. So we have a central clock and a central time. That's no new idea. Who can tell what's going on here. What's wrong here? You don't have to think very hard. What time is it on the clock? It's a dead give away. Isn't the input clock five minutes faster than the other two? It's not in sync is it?



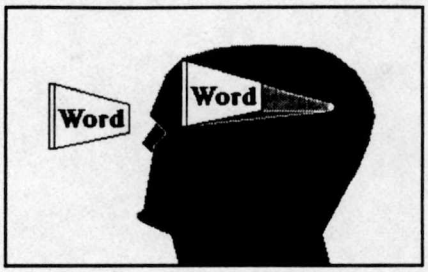
What would happen if that door was half the size that it is and I, standing up

here, see that the building is on fire and yell, "Fire?" Everybody runs out all at once. What's going to happen? Some of you are going to get out in the hall. Let's say the hall is a memory thinking area. Some of you are going to get out there. What about the rest of you? You are not all going to get there. Right? Why? Because you're all going at different times and at different rates. Everybody's jumping at the same time but you are all out of sync with each other. This time I say, "Folks don't get excited there's a little smoke in the back of the room, nothing to worry about now but I think we ought to leave. Line up and go out one at a time." What happens? Everybody gets out. How does everybody get out? What's the difference? Well when you do it in sync, everybody's going along at the same speed, the same time, and in sync or order. That's what you ask your students to do in the class when there is a fire drill. Dyslexia occurs when one of the processes timing is out of sync with the timing of the other processes in the system.



There's a reason why dyslexia can't be brain damage. How can something broken be miraculously fixed and then broken again. How can something that is broken be dynamic in nature? It can't. Sometimes a learning disabled person is not learning disabled, this is what I call a window. How can that be? If you have brain damage where things are broken, how can what is broken suddenly be unbroken? It can't. Yet, every single one of the people with learning disabilities who have

seen this presentation say the window is what caused them the most difficulty. I worked with one boy for a little while when he was at high school. I went through this material with him. Every time I saw him that year he'd say, "Clif, the window, it's the window that what got me." Because sometimes he was not learning disabled.



If the window is open, is he no longer learning disabled? Yes and no. It's true in the sense that the complete picture was getting in there and the visualization of the current incoming information is complete. He therefore didn't have to connect the dots. But, he still had to pronounce the picture until he heard the word. Relative to him however he was reading faster than he had ever read. To him he was suddenly cured; he wasn't learning disabled. Then the big question was, "Gee, am I really learning disabled or am I really stupid and lazy like everybody says I am." Unfortunately these students don't know the answer. They don't know but they do experience this window. I had one guy who worked in a warehouse come up to me and say, "You know what I have to do is go around the place and pick up boxes of things and I have to read the labels on the boxes. How come I can read the labels half the time and I can't read them the other half of the time?" That was before he saw this presentation. I said "wait, we'll see, I'll show you how and why." As soon as he saw this he said "my gosh, that's right, that's what it is." "It's the window," I replied, "and when the window is open you can do it and when it is

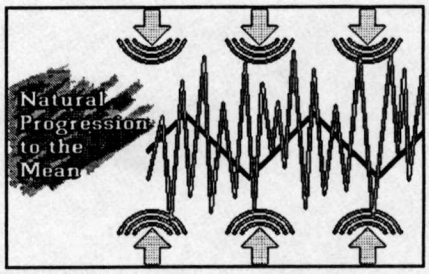
closed you can't. But remember your not reading semantically. You're just not having to connect the dots."

This window doesn't stay open long enough to create any kind of a sense of semantic reading where the person with dyslexia will automatically know the meaning of the word. He or she will still have to go through the manual process of pronouncing the word until they hear it. There's no way of circumventing that. The person who has the disability doesn't understand this because it's not explained clearly to him. They think they're reading as fast as everybody else. Remember, they don't know how to read. One of the things that occurred to me when I was putting this presentation together was that I thought everybody saw what I saw. In elementary school, I couldn't understand how the other kids could figure the words out faster than I could. But they could. I didn't know that when people visualized or re−visualize words, they saw the whole thing.

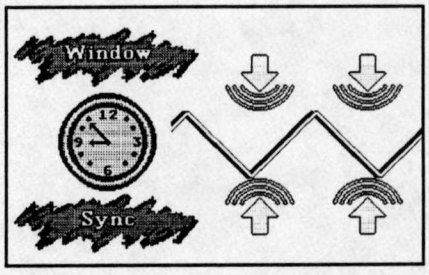
When I developed this model or presentation, I did what is called a thought experiment. I visualized myself reading. I was then starting to look at what I was doing and trying to analyze everything that was going on. I saw all of this going on and I thought, "That's right."

I have a masters in communication, I used to do television productions and produce educational and training programs. I built a TV studio one time and a

rather big one, broadcast quality. I had a monitor that was on the blink. I walked by that monitor one time and the screen was all fragmented. I stopped dead in my tracks. I looked at that fragmented picture and I knew I had seen it before, but I didn't know where. I didn't know what it was about that picture that hit me so hard. Well, later I did realize what it was. I was recognizing what I had seen in my minds eye when I read.



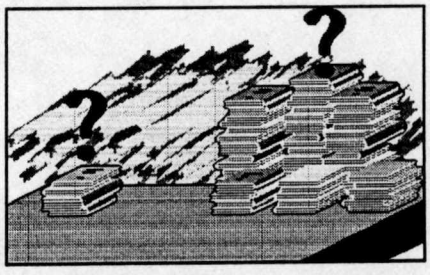
Let's say this represents language processing time. Let's say the white represent a general system time. This is word blindness. It's out of sync with the rest of the system. However, there is a natural progression to the mean and you all understand what this means. If you go outside today with a fur coat on what's going to happen? You're going to sweat. Why would you perspire? Your body is trying to cool itself off to maintain the correct temperature. A similar thing would have happened if you went out three weeks ago in your bathing suit. You would have gotten mighty chilly. Pretty soon you would have started to shiver and shake for the same reason. Everything in the body is trying to maintain the correct balance, a sort of sense of equilibrium. That's no great insight on my part. I don't know why people would think this is not also going on in the processing systems of the mind as well. A force is put on the processing system and the processing time



is slowed down until it's in sync with the rest of the system. Once it's in sync with the rest of the system the window opens and you can see the words. You don't see the fragments. It can last any where from a seconds to an hour or more. That's very unusual though. Remember the fellow who said he could read them about half of the time. This is what was happening.

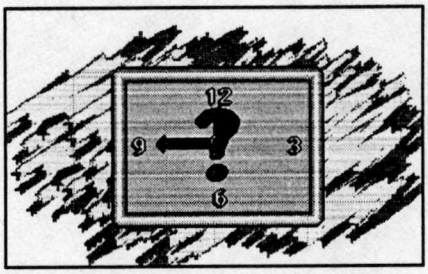
There are various degrees of dyslexia. Not everybody who has dyslexia is as dyslexic as others. There are various degrees of it and I think this concept has a lot to do with why. If the out−of−time and out−of−syncness is not too great then this force will hold the window open longer.

When you see these kids read often they tend to get agitated. I think that agitation not only has to do with the frustration of reading and the anxiety that they're under, but also the tension that's going on within them to try and correct this timing. They all pretty much tell you that. They say they tense up when they have to read, even when there's no pressure they feel this sort of sense of agitation.



Choice. The degree that a language learning disabled person is disabled has a lot to do with choice. If I had to read my books and majored in liberal arts as an undergraduate I would have been

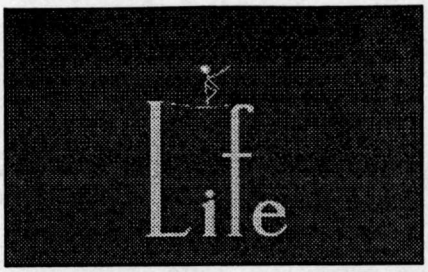
severely disabled. I never would have graduated I assure you. But I chose marketing, which required much less reading, so I wasn't so disabled. I use a spell checker now so I don't have a problem with spelling. I use a spell checker everywhere I go and I take it with me. If I don't know how to spell a word, I go type it in, get the correct word of the screen and just copy it down and keep going. So I have no spelling problems at all. I type everything on the word processor with the spell checker. Teachers have to start allowing their students with dyslexia to use compensation devices in class and on tests. Not allowing these devices, disables the students.



Time. Giving more time on test will enable a student to pass a test. Not giving them more time will disable them, causing them to fail. Remember, they have to connect those dots and put those piecestogether. The other students do not. So by not giving more time your disabling them. That is not fair.

Abilities. What can they do? What is their island of confidence? Find out what they can do and then teach them how to use that to compensate for what they can't do. Don't try to teach them what they can't do because they can't do it. No one has any control over this fragmentation and timing business.

This is how a lot of learning disabled people view life. It's a high wire act always trying to maintain your balance, always being on the guard, often defensive, often self–conscious, never quite sure, and no sense of real security. Why do you think so many of them get into drugs and alcohol? Fifty percent of the adolescents in drug and treatment centers are learning disabled. That really shouldn't be a surprise.



You don't have to know how to get where you're going, but you have to go. I've been here at the Teacher's Center four or five times. If you called me at home and ask me how to get here, I couldn't tell you. I have no clue how to get here. When I go down to the old city, and I've lived in Knoxville for almost 20 years, I don't know how to get there. I couldn't tell you how to get there, but I always get there. I know it's in that direction. So I get in my car and I head east, on Northshore, that's all I need to know. As I go along I come to an intersection and I recognize that I need to turn and I turn. When I come to the next one do the same thing. Eventually I get there. Now sometimes it's a circuitous route, but I always get there. You really don't have to know everything first. Very often it's important to know you can't always figure out how these kids are learning. You have to give them the credibility for figuring it out themselves. Teach them to trust. You have to teach them not to worry, they will pick up what they need along the way, but they must start the journey. Make the journey, try it. You don't have to know

everything before you get there. It's a way of encouraging them and giving them permission to make mistakes. We all make mistakes.

I hope I have said something that will help you with your students. I will be more than glad to try and answer any questions that you may have.

Appendix D.
Vita

Vita

Clifton D. Willard was born in New Haven, Connecticut in September, 1943. He graduated from Pace University in Pleasantville, New York in 1970. Clif received his first masters degree in communications from the University of Tennessee, Knoxville in 1986.

Work experience includes merchandising, international oil brokerage, television production, program development and voluntary counseling. He also developed a model that describes the nature of Dyslexia. Clif has done extensive volunteer work and received a J. C. Penney Golden Rule Award in 1991 for some of that volunteer work in the East Tennessee area.

Clif has been married for fourteen years and considers his home to be in Knoxville, Tennessee.