DOCUMENT RESUME

ED 436 714 CS 013 714

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TITLE An Oral Language Based Reading Remedial Program for Special Education Children.
PUB DATE 1999-05-00
NOTE 117p.; Ed.D. Practicum, Nova Southeastern University. Contains some faint type.
PUB TYPE Dissertations/Theses - Practicum Papers (043)
EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS Action Research; Curriculum Based Assessment; *Instructional Effectiveness; Junior High Schools; Low Achievement; Oral Language; *Reading Achievement; *Remedial Reading; *Special Education

ABSTRACT

A problem was addressed within the context of the action based research practicum model. The problem was junior high school special education students who read at or below the 10th percentile when compared to age appropriate peers on standardized achievement instruments; and who have had all manner of reading interventions and yet continue to fall further behind their peers. Conceptually, it was posited that the manner in which a child's oral language develops is inextricably related to a child's ability to read. The basic thesis was that if a child's oral language development was deficit or delayed for any number of natural or environmental reasons, then reading achievement would be deficit and delayed. Therefore, an approach to reading remediation was developed through identifying oral language deficits and their idiosyncratic relationship to reading achievement as a beginning intervention point. The problem solution was designed to assess oral language skill and deficit areas as the basis of the reading interventions. The reading interventions were continuously assessed through the use of curriculum based measurement. The data were analyzed in several different ways: through curriculum based measurement; though the use of pre/post measures of selected normed referenced academic achievement tests; and through pre/post measures on both teacher and parent questionnaires designed to assess their perceptions of change within their students as a result of the reading interventions. There were seven expected outcomes that led to mixed results. However, while not all of the outcomes were met, the direction of the data were favorable to the language based reading intervention model. (Author/RS)

An Oral Language Based Reading Remedial Program for Special Education Children

by
Tom Langdon
Cluster 78

A Practicum II Report Presented to
the Ed.D. Program in Child and Youth Studies
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Nova Southeastern University
1999

APPROVAL PAGE

This practicum took place as described.

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This report was submitted by Tom C. Langdon under the direction of the adviser listed below. It was submitted to the Ed. D. Program in Child and Youth Studies and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

Approved:

May 14, 1999
Date of Final Approval of Report

Wm. W. Anderson, Ed.D., Adviser

Acknowledgments

I am not only at the end of the practicum experience but through the practicum experience I have come to the end of, what was for me, a rigorous three years of self-discipline and study that has culminated in a doctorate degree in education. For me the experience has been very challenging. I am certain of the personal rewards that have come with study. I am less certain of the professional rewards and less interested.

However, I must acknowledge those who along the way have made the Nova experience vigorous and meaningful. First I would like to thank the integrity of the Nova program. It is a program of unquestionable standards and expectations that are assiduously protected. I would like to thank my two practicum advisers Drs. Anderson and Staggs. The former for his articulate and concise criticism of my work thereby allowing me to maximize my benefit and minimize my cost in terms of time. The latter for her no nonsense approach to my work and my need to understand the problem-solving power of the vehicle Nova has chosen to discern and solve educational problems; the practicum model.

Next I would like to thank my proof reader, Carol Galloway. Carol, whose passion for clarity of the written word, has assisted me in upgrading my own written expression to the standards of the Nova experience.

I would be remiss without thanking my special education resource room teacher, Denise Thorpe, for her assistance with the practicum interventions, and our special education para-professional, Harriet Broom for her help with standardized achievement testing.

Lastly I would like to thank my wife who understood and respected the need of a middle age man, with four children in various stages of the own educational evolution to seek personal refuge reassessment, and renewal in learning.

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Abstract

An Oral Language Based Reading Remedial Program for Special Education Children. Langdon, Tom C., 1999: Practicum Report, Nova Southeastern University, Ed.D. Program in Child and Youth Studies. Reading Remediation/ Language/Reading Oral Language/Reading Special Education Students/Reading Remedial Reading/Special Education

The problem addressed within the context of the action based research practicum model. The problem was special education students who read at or below the 10th percentile when compared to age appropriate peers on standardized achievement instruments; and who have had all manner of reading interventions and yet continue to fall further behind their peers. Conceptually, it was posited that the manner in which a child's oral language develops is inextricably related to a child's ability to read. A multitude of factors and models of reading and language development were discussed within the context of their relativity to oral language acquisition and reading achievement. The basic thesis was that if a child's oral language development was deficit or delayed for any number of natural or environmental reasons, then reading achievement would be deficit and delayed. Therefore, an approach to reading remediation was developed through identifying oral language deficits and their idiosyncratic relationship to reading achievement as a beginning intervention point.

The problem solution was designed to assess oral language skill and deficit areas as the basis of the reading interventions. The reading interventions were continuously assessed through the use of curriculum based measurement. This provided a measurement directed, language based instructional model, wherein the metric of words read per minute were dependent on the independent variable which was in the form of the language based idiosyncratic reading intervention. Such a design is a valid and sensitive measure of reading, and can therefore, direct the nature of the reading intervention overtime by using the direct feedback of the measurement (dependent variable/correct words read per minute) to affect necessary and meaningful change to the reading intervention (independent variable/language based reading intervention).

The data were analyzed in several different ways: through curriculum based measurement; though the use of pre/post measures of selected normed referenced academic achievement tests; and through pre/post measures on both teacher and parent questionnaires designed to assess their perceptions of change within their student as a result of the reading interventions. There were seven expected outcomes that led to mixed results. However, while not all of the outcomes were met, the direction of the data were favorable to the language based reading intervention model.

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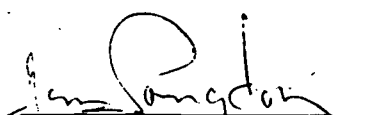
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Chapter I: Introduction

Descriptions of Community

The community where the writer is employed is right of center in terms of its national politics. It is Judeo-Christian in its religious persuasion. The community is part of a major metropolis and supports a professional and retail establishment. Most of its residents are either service providers or professionals, and the majority of them work in other major communities. The community is predominately middle class and their ethnicity is predominately Caucasian. The population of the community is 150,000.

Description of Work Setting

The writer is employed by a public school system with approximated 20,000 students. The students are supported by 18 elementary schools, five junior high schools, three high schools, one alternative high school, and a day treatment program for adolescence. The school district is committed to technology and therefore has networked the schools with the assistance of computer technology, and has connected each classroom to the Internet. One of the major goals of the school district is to have timely computer access for all students, and to have a major portion of the students' program related to independent problem solving by employing the major resources provided by computer technology and the Internet.

Writer's Role

The writer is a school psychologist and is assigned to two elementary school and one junior high school. The writer's main function is to provide assessment services to those students who have been referred to special education services for an evaluation to determine their qualification for special education services. As a secondary function the writer is expected to collaborate with school personnel in the development of individual

education programs (IEP) for those students who have previously qualified for special education services. However, much of the writer's time is dedicated to report writing and compliance issues related to the Individuals with Disabilities Education Act (IDEA). The school district is very concerned with litigation arising out of due process issues relating to the implementation of IDEA. From the writer's perspective the school district's emphasis on due process is unfortunate as it precludes the writer and his colleagues from performing those tasks that are a necessary and valid function of IEP development, implementation, and reevaluation. One of the most important tasks that a school psychologist can perform is the dynamic or formative assessment, which is sometimes authentic, but in all cases dynamic, ongoing, and developmental in its nature. It is the kind of assessment that pushes the limits of the standardized assessment instruments and provides a detailed picture of the student's strengths and weaknesses and not just a time constrained snapshot of the student, based on the traditional school psychological assessment that is primarily used to fund the student's special education program and little else.

The majority of the writer's employment time is spent in the elementary schools. It is here that the writer has carved out the necessary time to make a contribution to the teachers and children he serves. The staff at the junior high school perceive the role of the school psychologist as that of assessment only. Therefore, they are satisfied with the writer's performance as it relates to psychometric assessment and reporting. The student population at the junior high school is approximately 850. This translates into approximately one initial assessment every two weeks and one reassessment every three weeks. Therefore, the writer has been able to disproportionately provide greater service to his elementary school. As a result the writer is greatly involved in providing service to special education students and regular education students alike. Furthermore, there is more time available for IEP development, implementation, and evaluation. The writer has therefore been perceived by the teaching staff as an important resource and not just a central administration bureaucrat. One benefit from this perception is that the writer can be trusted

to support teachers in all aspects of their instructional endeavors and their interpersonal school related concerns. The teachers know that the writer will put forth an honest effort to support them and their children, and that he will be objective. For the writer this means access to all the nuances and dynamics of the building's collective personality, which is key to providing informed and intelligent service.

Within this informed environment the writer has been afforded the trust of most staff members. This has put him in the unique position to move in and out of many different school related situations with parents and teachers, teachers and principal, parents and parents, teachers and students, teachers and teachers, and counselor and teachers. The writer has been entrusted with confidential information within these relationships and the result has been an increase in trust and credibility. It is within this context that the writer has defined the practicum problem.

Chapter II: Study of the Problem

Problem Statement

The problem to be solved in this practicum is six special education resource room students who have average measured intellectual ability, less than average expressive and/or receptive language scores on norm referenced language assessment instruments, and who concurrently have combined measured reading deficits at or below the 10 percentile on curriculum based reading measures and on the Woodcock/Johnson Psycho-Educational Battery-Revised (Woodcock, 1987) on two or more of the following W/J-R reading related subtests: Letter-Word Identification, Word Attack Skills, Passage Comprehension, Dictation, Broad Reading, and Basic Reading. These students have a rate of reading growth that is discrepant from that of their classmates in that their rate of grade level oral reading fluency is at or below the 10th percentile when compared to their classmates. As this type discrepant student moves to the junior and senior level the discrepancy can be as much as four to seven grade levels below their age peers. The problem therefore, is those special education students who read at or below the 10th percentile when compared to their age appropriate peers despite exposure to the best reading programs and strategies offered by the writer's school district.

Problem Description

These children represent an immense problem to the school and to the community. The basic school's regular education reading program, the school's Chapter reading programs, nor the special education programs have been able to support these students in their efforts to read at grade level. As these children moved through the elementary school they fail to learn to read adequately, and therefore, they fail to read to learn as they advance through the grades. Many times they become withdrawn or they move to the other

extreme, in terms of behaviorally acting out their frustrations with a system wherein they cannot be successful.

Many of these children are made to feel that they are "dumb" and incapable of learning. This is certainly not done intentionally, rather it is an inadvertent consequence of a system that has failed on at least two accounts. The first failure is the system's inability to teach these children to read at a level that will allow them to adequately learn from one grade to the next. The second failure, and in the writer's opinion an unconscionable failure, is the absence of alternative programs for those children who have failed to read through the regular program, Chapter programs or special education programs.

In the writer's school district there are no special education or regular education vocational programs at the junior high level. These programs are not available until the student's junior year of high school. The destructive price of this non vocational policy is that the preeminent lesson the student has learned is that she/he cannot learn in the academic arena. This is a very, very, sad lesson to learn at such a young age. For many of these students the lesson has been irreversible.

Despite all the well intentioned efforts on the part of the school district and their director of reading curriculum, the extremely dedicated primary education teachers, the well trained Chapter and special education teachers, and all the other teachers in our better than average system of education, a system whose very mission statement boasts the need to develop "world class learners," regularly and consistently produce a significant number of students who are functionally impaired in the area of reading and writing. The number of reading impaired students nationally is somewhere in the vicinity of 40 percent, however nearly half of that population is illiterate (Adams, 1990), and this is the population of this practicum.

Problem Documentation

There are several sources of evidence that document the existence of the problem within the writer's workplace. To the writer the most vivid and valid documentation of the

problem comes from the teachers in the writer's work site. The teachers are both extremely dedicated and experienced in the art of teaching reading to regular education students. Among them there exists more than 70 years of reading instruction. Given their dedication and experience, it is somewhat surprising that they are at a complete loss as to practical reading strategies for this group of reading resistant students. They refer these children to Chapter programs and for special education assessment in an effort to problem-solve their students' reading impediments (note: reading "resistant" students is a term coined by the writer to represent those students who are either reading disabled or reading impaired due, in part, to lack of literacy opportunities; wherein the writer believes there to be cause and effect reciprocity between the two).

The problem continues to find documentation at the junior high school level. Here these students are referred to special education for assessment. However, by this stage of the student's academic development, the problem has generalized to all academic areas. Much of the time the referred student has a six to eight year history of school failure with accompanying behavior problems, or performance deficits as a result of withdrawing from the academic portion of the school process. Generally at this stage of the problem development, the student is recalcitrant and resistant to all manner of intervention.

Some parents are voicing concern. Who, better than the parent, to know that the student has a reading problem. They ask for meetings and more testing. It is as if they believe that the "right" test will unmask the reading problem. Much of the time the parents blame the teacher, any teacher. The parents believe the system has failed their child; unfortunately it is the writer's belief that many times, due to the dynamics of the system, it does fail all too many children.

In the writer's school district the problem of the parents pointing their fingers, so to speak, has recently been exacerbated. The school district, in the name of learning and accountability, has adopted a policy of retention in the event that students do not make "minimum progress" as defined by grade level benchmarks. When the reality is

understood by the parent that their child is making more progress toward retention than toward the next grade level, many parents affix the blame on the school, the principal, the teachers, or any other person or event that makes the most sense to them. The parents then demand remedial assistance in the form of Chapter programs, special education, and/or teacher accountability in the form of continuous meetings with the teacher and other specialists regarding their child's progress.

In the primary grades many of these students have a great deal of difficulty learning their alphabet. Despite the fact that they have had experience and practice with these letters in a variety of contexts in kindergarten and in the first grade, some of these reading disabled students do not know all of the letters of the alphabet, or their letter recognition is slow and labored. It is also true that many of these children do not know the relationship between the letters and their respective sound, or they are slow and labored in this understanding. Such a deficiency in letter and letter/sound knowledge, and speed of recognition has serious consequences to the reading process.

These reading disabled students are also recognized by their poor performance on any number of individually administered and nationally normed reading achievement and reading inventory assessment devices such as the WJ/R, Woodcock Reading Mastery Inventory (1987), or the Iowa Test of Basic Skills. These children are further recognized by their poor performance on nationally normed, locally normed or peer normed curriculum based reading measures such as reading fluency measures. And lastly, in terms of nationally normed and criterion referenced tests, these reading disabled students are conspicuous by their performance in reading and language areas that are generally below the 10 percentile with regard to most reading and language measures.

Another point of recognition is the almost unanimous perception of the teachers who have had contact with these students, that they are at risk for extended school failure. Most teachers are very careful with regard to the narratives they write in the students' report cards. However, a cursory reading of a reading resistant student's report card, and even

the most considerate of teachers find it difficult to soften the reality of their fear for the future of this kind of student. Furthermore, upon causal discussion of the reading resistant student with any of their teachers, two perceptions are articulated. The first is that these teachers look into the near academic future of these students and predict little success, and secondly the teachers are at a complete loss as to how to prevent their predictions from coming to fruition.

One of the more distressful experiences in the special education environment occurs when these reading resistant children are brought before a staffing of the multidisciplinary team (MDT). In the writer's school this team is composed of a reading specialist, school psychologist (the writer), school counselor, speech and language pathologist, resource room special education teacher, school principal, school nurse, and a regular education teacher. This is an experienced team of professionals whom, over an extended period of time, have been together as a team and have had very little impact on solving the puzzle of the reading resistant student.

The most frustrating and defeating aspect for this team of professionals is the number of times these same students are brought back to the staffing table by different teachers with the same referring problem i.e., the student is failing in most academic areas, and is struggling with reading. In the higher grades the referring problem is simply poor reading and written language performance, leading to academic failure in most core areas. The resistant reader is frustrating and defeating in that after the initial special education assessment confirms referring teacher's beliefs, and the child is qualified for special education as an learning disabled student or a speech and/or language disabled student, very little progress is ever made toward the remediation of the student's deficits.

The writer has been instrumental in initial special education qualification of these students in elementary school and then has been reintroduced to these same students at a junior high school MDT staffing years later. Much to the writer's dismay these same students were having the same problems, only instead of being one to two years below

their peers in the reading and written language areas, they are now three to six years behind their peers. It is a very disheartening phenomenon. One cannot help but wonder why all the king's horses and all the king's men couldn't put humpty dumpty back together again!

The process, strategies, reading programs, teachers, MDT members, and all the dedicated efforts, over an extended period of time, have not been able to teach the resistant reader to read. The exasperating point is very clear; what we do, and have done with the reading resistant student has not worked, and there is absolutely no reason to believe that more of the same thing will do anything except demonstrate to these students that not only can they not read, but more destructively, they cannot learn!

Causative Analysis

There are multiple causes for the problems that result when children find it difficult to read. All of these problems appear to be represented differently in each resistant reader, and most of these differences are not well understood empirically. The most obvious, and yet it would seem the least well documented, is inadequate instruction.

However, in terms of understanding the origination(s) of reading disorders, on a conceptual level, we cross into the area that has been occupied by the field of psychiatry, and other "soft" sciences, for some time. These practitioners have a very extensive and elaborate system to describe and evaluate psychiatric conditions. They have the Diagnostic and Statistical Manual of Mental Disorders-IV, (1994). It is updated from time to time and it represents a compendium of psychiatric disorders that are basically defined by the patients' presenting behavior(s), and duration, and severity thereof. The manual is purely descriptive, designed to be diagnostic and provide for comparative analysis. The manual offers no cause and effect scenarios or treatment procedures.

The field of reading disorders has no manual. It has no consistent manner for identifying the nature of reading disorders. There is no systematic common language. Unlike the field of psychiatry, the field of reading disorders has very few consistently common held conceptual understandings or beliefs. For example, when the concept of

"dyslexia" is mentioned, the definition can be as varied as the number of people purporting to give it a definition. The commonly held public definition relates to the "brain's inability" to "see" symbols the way in which they are presented in their context. Many reading teachers would subscribe to this conceptualization of the problem. The process of understanding dyslexia is very complex, and at this point theoretical, but becoming less theoretical all the time with the advent of brain imaging technologies and research designs developed to take advantage of such insights. It has been posited (Aaron & Joshi, 1992; Catts, 1989a, Catts, 1989b; Goldsworthy, 1996) that phonological encoding and decoding difficulties form a conceptual understanding of dyslexia. This kind of research, while very important, leads to more questions than answers along the road to understanding the reading resistant student.

The writer's purpose of comparing the general field of psychiatry to the specific field of reading disorders is to demonstrate, that while the systematic study of psychiatric problems has been around much longer then the study of reading disorders, in the formal sense, and while the field of psychiatry has had a nomenclature for disorders since the 1950's, which has given impetus to research and treatment models, they still have little more than a conceptual understanding of the disorders they are evaluating and treating.

While the study of reading disorders is very similar conceptually to the study of psychiatry, there appears to be much less of a conceptual understanding of reading problems i.e., the cause and effect associated with poor reading. To further articulate this point, all one has to do is ask three psychiatrists to define the nature of schizophrenia in terms of its origination, it populations, and its treatment models. The reader should not be surprised if there are three different answers. Therefore, to state that reading disorders are not well understood empirically is an understatement, and should caution all readers to understand that reading is a extremely complex neurological process for which neuroscience has very little objective understanding at this time.

Given the above understanding with regard to cause and effect of reading disorders, the writer has examined some causes of reading problems that seem to be prevalent within the writer's work site but certainly not exclusively limited to the writer's work site. The first of these causes is related to the "differences" that young children bring to the reading process. After interviewing many reading teachers, the one constant that appears to be self-evident is that no two children learn to read in exactly the same manner. To be sure, the evidence that most children do seem to learn to read adequately when exposed to different methods of beginning reading programs would suggest that most children learn in a similar manner. That is the good news. However, not all children bring the same pre literacy skills to the reading table nor do they bring the same cognitive and neuropsychological skills to the reading table. It would seem that to the degree to which the reading resistant students deviate from the norm, in terms of pre literacy skills and neuropsychological functioning, is the same degree to which they have difficulties learning to read.

There would appear to be another side to this "difference" coin i.e., that students bring different and varying skills to the reading table. The other side of the coin is that school districts traditionally provide only one curriculum to meet the diverse needs of the beginning reader. The writer's school district has a prescribed reading program. It is a good program but it does not meet the diverse clientele to whom it is applied. As experienced teachers have informed the writer, every one of their beginning readers are different and most can be taught to read with most any consistent reading program that any school district might adopt. However, the degree of difficulty within any reading program varies for each student, and it would appear that none of the reading programs fit the needs of the practicum population as defined herein, even when those programs are Chapter or special education.

An area of paramount importance to the neophyte reader is the pre reading or pre literacy experiences that should have occurred in the home long before the student is even aware of school in the formal sense. The importance of these experiences cannot be

underscored enough. For many children such experiences can mean the difference of learning to read or not learning to read, or at the very least, the lack thereof bearing a direct relationship on the difficulty of learning to read.

The writer does not in anyway purport to be an "expert" in the field of reading. However, by virtue of time spent in MDT staffings over the years, and the knowledge gained through the assessment process, the writer has acquired specialized knowledge of reading. Unfortunately, the most disconcerting bit of information the writer has absorbed was the realization that no member of any MDT that the writer has had the privilege serving, has current research based knowledge of instructional methodologies that meet the reading needs of the reading disabled/resistant student. Given the professional qualifications of the MDT members it would not seem possible that these professionals would not have the expertise to develop and implement reading programs that would in fact teach the reading disabled/resistant to read.

The writer's elementary schools MDT have both a reading specialist and a speech pathologist. It is the opinion of the writer that these people, by virtue of their training and experience, should be the most qualified to both assess and collaborate on instructional methodologies for the reading disabled/resistant student. However, this has not been the case. They too are at a loss for a means of significantly moving these children along in the reading process.

The writer does not mean to imply that these people are not competent, but most certainly something must be askew. If not the professional, then who or what may be responsible? Perhaps the colleges and universities that train them, or possibly the school districts who employ them, are at fault, for not providing teacher training programs designed to disseminate the new reading research and strategies that have been developed in the last 15 to 20 years. It appears to the writer that there are enough holes in the instruction system for all members to shoulder some of the responsibility for not providing a reading program that truly works for the reading disabled/resistant student.

There would also appear to be systemic problems within the public school program that legislate against appropriate reading instruction for these reading disabled/resistant students. The system wide program of assessment for special education students is one of these systemic problems. In order to qualify for services under special education in the area of reading, in the writer's school district as in most school districts around the country, but certainly not all, there must be a discrepancy between the students' reading ability and the students' intellectual ability in favor of the intellectual. Unfortunately, for most students, this requires from one to four years of reading failure before such a discrepancy becomes statistically significant and the student qualifies for special education in the area of reading. In the interim the system has taught the student that he/she cannot read, and furthermore, is an academic failure.

Another system wide problem indigenous to public education is the manner in which the reading curriculum is delivered. For the most part it is delivered in twenty to thirty minute segments per day. For the reading disabled/resistant student this is not nearly enough instructional time per day. Also, the instructional time is generally geared to either small group or large group instruction. The reading disabled/resistant student, for reasons to be discussed later, needs a great deal of individual instruction. Even when these students find their way to a specialized Chapter or special education program, they are not exposed to individual reading programs. Their reading instruction is almost always in small group settings, comprised of readers with diverse reading problems, and the same reading program such as direct instruction is taught to all students.

It would appear that this kind of instruction is the norm and not the exception. Furthermore, it would appear that this kind of instruction is a product of what has been done in the past, and therefore, continues to be done in the present. It may be economically efficient in the short term but it is also very myopic, as the cost to the social system for not teaching all capable students to read at literate levels is incalculable.

There would appear to be assessment and instructional strategies available for the instruction of the reading disabled/resistant student, but they are not marketable as they do not lend themselves to a great deal of group instruction. Furthermore, they require the traditional reading programmers to "think outside of the box;" and apply new conventions to old problems. In short, it is the writer's belief that much of the way the system requires that reading be taught is in fact a contributing cause of failure in the reading disabled/resistant student.

Another contributing factor to the poor reading performance of the disabled/resistant reader are the kinds of reading diagnostic instruments that are commonly used in the schools today. Almost all of these instruments have great technical attributes from a psychometric perspective. They have high degrees of reliability and validity. That is, they consistently do what they purport to do. They tell us who can read and who cannot read, and they direct us to a reader's relative strengths and weaknesses. In essence, they do little more than confirm what good teachers already know; that the student cannot read, only that they do it with great technical objectivity.

There are three basic problems with these kinds of assessment instruments. They tell us little more than what experienced teachers already know about the poor reading skills of their students and secondly, for the most part, the results do not lead to meaningful interventions. Moreover, many Chapter and special education teachers use the results to measure reading progress from year to year. The problem with using these instruments in this manner, is that a once a year progress measurement could mean that a complete year of the student's academic life has been wasted, if the instructional program is not working for the student.

However, the fact that these instruments do not lead to appropriate interventions because they do not evaluate specific skills or skill deficits, and they do not evaluate in a formative manner (in a manner that is continuous and provides on going program intervention) but rather in a summative fashion (evaluations on completed programs with

no opportunity for program intervention), usually means too little too late. In point of fact, formative assessments lead to assessment driven interventions that can be adjusted every day if necessary. Wherein, the norm or criterion referenced summative assessments lead to little student specific interventions and certainly not nearly frequent enough.

The absences of most curriculum based measures (CBM) in the school environment is, in the writer's opinion, a substantial contributing cause of the disabled/resistant reader's inability to read at the same level as his or her peers. In the first place, CBM is a formative format for evaluation. In this format progress, or lack thereof, can be measured on a daily basis. It is easily adapted to a single trial format which allows the teacher to evaluate specific or general student reading skills on a daily, weekly, or monthly basis, depending on the teacher's defined need.

CBM is a formative method of academic measurement that provides immediate information about the reading progress that can either confirm or deny any particular reading intervention; it is a measurement method that empirically drives interventions and, just as important, provides a detailed record of a student's progress. The is crucial data to have as it benefits the student, the teacher, and the systems ability to articulately justify its own behavior, which is not only professional but necessary, in these times of high litigation costs.

It is the writer's perception that the reason CBM is not in use in the writer's school district, or in most other school districts for that matter, is twofold. Although CBM has been around since the 1980's (Shinn, 1988, 1989) many of our current teachers, who were trained in the 1960's and 1970's were not exposed to it. However, a more salient reason is the fact that it requires the teacher and district's reading director to "think outside of the systemic box." Secondly, that they use measurement as a teaching tool as well as a evaluative tool, not merely as a tool that informs the district how things are going once a year.

Another suspected cause, that adversely impacts the disabled/resistant reader, is the initial reading programs that the school district prescribes for the beginning reading experience. Without fail they are all basal series, and they all begin with instruction of the alphabetic code. For most children this is a sound approach. But for the many children who are not reading at that level of instruction, the results can be disastrous and sometimes irreversible. Many of these disabled/resistant readers are not ready to learn the alphabetic code, and no matter how much practice and ditto sheets the child endures, the only thing that is learned is that reading is something they do not understand and cannot do.

As stated earlier many of these disabled/resistant readers do not have the requisite literacy experiences and skills that one must have to begin reading at the alphabetic code level. However, in our system if the disabled/resistant reader is unsuccessful in the regular reading program, the child will usually qualify for a Chapter reading program and subsequently into a special education program. In the writer's opinion this can be the worst kind of alternative programming for this group of students. For in these programs the child is usually exposed to the same kinds of alphabetical code breaking programs, only this time presented more systematically with more meaningless ditto seat work and letter/sound related tasks that have very little meaning to the student. Moreover, here again the worst of all possible consequences to the disabled/resistant reader, is the internalization of the self-concept of the non-reader, non-learner belief system. It has been reported by Fountas and Pinnell, (1996) that lower achieving readers are given fewer opportunities to read and write than their higher achieving peers, and instead they are besieged with drill and practice which is pointless when purpose or intention is lacking.

Yet another cause of the resistant reader in the writer's school district, as well as other school districts, is the kind of instructional reading methods, that for the most part, have not taken advantage of newly developed brain based understandings regarding learning and emotional responding in the school environment.. There has been a great deal of brain related research in the past ten years due, in part to the demand, and to the new

technology related to brain imaging techniques (Amen, 1994; Goleman, 1995; Caine & Caine, 1994; Csikszentmihalyi, 1990; and Sylwester, 1995). Much of this research speaks to the merits of brain based learning. Basically, what kinds of stimulus presentations pander to the natural processing of the brain. Instruction, be it reading or otherwise, that does not teach to the whole child but rather to the isolated aspects of the child, does not provide for an adequate learning environment. The child who is learning, is the child who has his/her needs for creativity, imagination, excitement, and learning style simultaneously stimulated (Ornstrin & Sobel, 1987). Many teachers, and most reading curricula, do not consider the child beyond the needs of the material presented; can the student demonstrate mastery or not?

Another important consideration for learning is meeting the physiological needs of the learner. Some of the nutritional demands of the learner are not within the control of the teacher, or at best indirectly. However, everything that affects our physiological functioning affects our ability to learn (Caine & Caine, 1994; Conners, 1989). In the classroom environment the teacher must be concerned with the affects of stress, threat, and boredom as well as happiness and contentment (Ornstein & Sobel, 1987). The key is the management of these variable parts of the physiological environment in a manner that balances what is new, exciting, and demanding with that which is stable and known; to create a meaningful and exciting challenge with a very modest amount of anxiety (Csikszentmihalyi, 1990). The writer understands the inherit difficulties when a teacher is faced with 25 different students, all with varying dispositions and temperaments; not to mention the day to day needs of the teacher. This is all the more reason that teachers, at the very least, need to understand the role human physiology plays in the dynamics of the classroom.

One cannot expect learning to occur if the structure for learning, or the wrapper on the concept is not meaningful. It is a natural instinctive drive to make meaning out of new or related stimuli. The brain seeks meaningful connections while at the same time searching

for and responding to new stimulation (Canie & Caine, 1994; Sylvester, 1995). This is an extremely important concept to understand. Without meaning learning does not occur, only unrelated fleeting memories. The brain is constantly seeking to make meaning from the stimuli presented. The brain seeks comparisons and contrasts as it seeks to classify and generalize in a continuous effort to induce and deduce and interpret and extrapolate. When there is no meaning, but rather isolated and unrelated data such as in learning isolated sounds or numbers, learning becomes pointless and the learner becomes frustrated and confused. When the physiology of learning is disrupted then meaningfulness and relatedness is not present, and what is learned, is that school is too hard or too boring; it is a place where survival/coping skills are learned instead of reading.

Related to an aforementioned, albeit, limited discussion of the alphabetic principle, are language related reading problems, which in the writer's opinion play an enormous role in any child's ability to learn to read. However, we pay only cursory attention to it, and it plays a very little role in the understanding of the reading process in the writer's district. For the most part, speech and language related problems are treated as if they occurred in isolation from the reading process and, are therefore, remediated separately. The speech and language pathologist rarely if ever discusses the intimate and integral relationship between speech/language and the child's ability to learn how to read. Unfortunately, language is of paramount importance, and in many cases, is pivotal to reading or not reading.

It is the writer's belief that a major reason there is not the kind of relationship between the spoken word and the printed word in the writer's school district, has little to do with the speech pathologist and everything to do with the manner in which we do business in special education. Funding is the name of the game, and the implementation of the regulations that control special education funding splinters the whole of the assessment and IEP process. That is to say that each specialist is directed to meet the regulations for funding for their respective disciplines and that becomes the major focus. That is how

specialists are evaluated as competent or incompetent. Here again the problem is systemic, in that the needs of the system to follow funding requirements change the focus of the assessment. Subsequently, the immense remedial piece held in the language/reading dynamic is lost in the process. Just another systemic example where regulations become the end and not just merely the means; the tail continues to wag the dog in the business of special education funding.

Yet another suspected cause for the disabled/resistant reader in the writer's school district is related to parental involvement in the whole of the educational process. Many times parents are not involved due to a lack of incentive to be involved. Many parents are truly too busy to be involved at some level of school activity. There are also those single parents who have two or more school age children and work full time and perhaps are going to school at night. Schools need to be sensitive to the plight of these parents and others with similar circumstances. However, the disabled/resistant reading child needs to read or work on literacy skills at every opportunity. They have literacy experiences to catch-up on, and many times, in order for them to learn reading skills, they need considerably more exposure to concepts and strategies.

In the vernacular of the business community, the "at home reading" market is an untapped resource that needs desperately to be heavily involved in the disabled/resistant child's reading development. In the writer's school this resource has been under utilized, and if used at all, it is used in a very perfunctory manner. It would seem that this vast and very necessary resource must be tapped if there is to be any hope of making substantial progress in the reading skills of these children. The school must attempt more innovation in this area of home/school instruction in an effort to gain the immense benefits from a resource that may have the potential to equal or surpass the school's contribution to the literacy of the disabled/resistant reader.

The writer perceives goals, and the measurement thereof, to be instrumental to the reading process. The teacher and the student need to have specific reading expectations and

a means of determining if what they are doing, in terms of program and strategies, is having the desired effect. Using norm or criterion referenced tests, that have short term test-retest reliability problems such as the WJ-R, as a measurement tool is highly inaccurate and not timely. They are inaccurate in that they do not measure the idiosyncratic needs of the disabled/resistant reading student, and therefore, provide marginal insights into the needs of the reader. An example of this can be found in the analysis of a WJ-R protocol. If the student is 7 years of age and has a standard score of 78 on the letter-word identification subtest and a 73 on the word attack subtest and a 69 on the dictation subtest, what does this information say about the student's reading program? Well it tells us that the student is very low in letter/sound knowledge and has little to no understanding of the alphabetical principle when compared to age appropriate peers. But it does not tell us why. The "why," which is a crucial piece of the reading puzzle because "why" can lead to meaningful programming strategies.

Another major shortcoming of these assessment instruments is that they do not provide a formative evaluation but rather a summative evaluation. This is a very important distinction. The formative evaluation can be designed to provide its user with data that are useful on a day to day basis. Such data can provide the kind of feedback that can be analyzed and used for immediate program adjustment. These kinds of data are indispensable if one ever expects to meet reading goals. Without these kinds of data how would one know if the reading program was on target toward reaching those goals? In order to reach reading goals discrete measures must be taken along the way, in order to assure that our aim toward our goal is true.

The more traditional norm and criterion referenced assessment instruments are designed to be summative, and therefore, are of little value in providing the kind of daily or weekly formative measures that provide for short term course corrections that are absolutely indispensable to the overall process of program goal achievement. The bottom line here is that if you are to impact the reading skills of the disabled/resistant reader, you

must know where you are going, i.e. there must be goals and secondly, you must have a timely and relevant assessment/measurement to keep your programming applicable to the needs of your students.

Relationship of the Problem to the Literature

There has been a great deal of information written about the reading process. For the last 6 to 7 decades there has been an ever increasing degree of sophisticated information represented in the journals. It is an area of education that is, and has been, emotionalized and politicized from the beginning. One does not have to look very far to determine why reading is such an important issue. The culture understands that if its constituents are to be socialized, its main instructional tool is the dissemination of its standards and processes. To this day the most efficient means of obtaining this goal has been through the printed word. The society has never before had more need for sophisticated readers than it does today, and to that extent it fuels the fires of controversy around the issues of reading instructional methodologies (Routman, 1996).

Reading, and the teaching of reading, is important to the culture as it is the principle tool for self-perpetuation. It easily follows then, that controversy over the best way to give the cultures' constituents the tools to prepare themselves would be a hotly debated issue. In fact this has been the case for years. The question has always been: what is the best way to teach reading? The question itself logically presupposes a controversy; it begs the certainty of controversy. The nature of the question leads to the false conclusion that there is a best way to teach reading.

In one form or another reading instruction in this country has often been a controversial issue. We have a history of alternating back and forth between a pure code based method of reading instruction and a meaning first method of reading instruction. The history of reading instruction has raged between the "code instruction" camp and "meaning first" camp since reading has been taught in a formalized method. As incredibly tedious as

this polemic continues to be, the controversy still rages today in much the same fashion that it has since the latter part of the 19th century.

Most recently the nature of this polemic has moved from the journals, newspapers, school boards, and the classrooms to the political arena in the writer's home state. The state legislature recently introduced House Bill 2419 (Houtz & Searcey, 1998). The bill is designed to provide resource centers where teachers can find information about phonics-based reading programs and set up volunteer reading programs. However, the hook in the bill provides that schools that desire state funds, to help improve their reading scores, must commit to using a phonics-based training model. The article goes on to say that the impetus for such proposed "reading" legislation is the result of a misuse in whole language approaches to reading, within an environment of careful public scrutiny of reading, and a conservative political agenda.

It is questionable whether or not this controversy will ever be resolved. Possibly, as the political agendas become more sophisticated, they will come to the same and correct conclusion that most knowledgeable teachers have already come to. And that is, that both systems of instruction, phonics and whole language, play important roles in the reading instructional process. However, as alive as the controversy seems to be, it is not the controversy that concerns the writer. With regard to the student population this practicum is concerned with, code or whole language instruction is not the immediate focus. This population of students generally has difficulties further upstream from the conventions of phonics or whole language. These students, the disabled/resistant readers, have a difficult time gaining the necessary requisites to be in a learning position to gain from the benefits of phonics instruction or for that matter, any instruction.

For a moment, conceive the beginning of the reading process as a fresh water steam. It starts high in the hills and mountains and eventually empties into the ocean. The emerging reader begins in the mountains and hills of language development. When the oral language is in place with the automaticity of its phonology and syntactical expression, then

it is time to move downstream to the printed word that carries meaning. The printed symbols carry the same sounds as the oral language that was learned further up stream, but the printed word is only symbolic of the oral sounds. It is roughly at this point in the stream that the emerging reader needs to be concerned with the instructional methods that are utilized in phonics and whole language systems. Coincidentally, it is at this point in the stream that most reading programs begin instruction. They start with letters, sounds, and words. They have abstract rules and abstract exceptions thereto, with regard to how the letters and sounds are to work together in order to make reading occur from a phonetic perspective, and beliefs about the contextual meanings and values from which whole words are derived. Unfortunately, the population of this practicum would appear to be those students whose knowledge and experience is still developing upstream from where most initial reading programs begin. The importance of the upstream learning or lack thereof, cannot be underestimated in the emerging readers' requisite training for the rigors of letters, sounds, print, words and contextulized meaning and experiences.

The emerging readers that do not have the upstream requisites, when formal reading instruction begins, are those students the writer has conceptualized as the resistant reader. They resist the best intentions of their diligent teachers because what they are being taught does not make a whit of sense to them. At the risk of punning the obvious, the student and the teacher are not on the same page, and furthermore, they do not know how to communicate this very important inconsistency between the learner and teacher. The teacher continues to find different and more creative instructional methods for letters, sounds, and words but the student has no upstream frame of reference to integrate the meaning of what is being taught. The result is the same for both student and teacher i.e., failure and frustration. However, the situation puts both the student and the society at risk for failure.

The literature strongly supports reading instructional approaches that blend the basics of phonics with the experiences of whole language (Routman, 1996; Adams, 1990;

Chall, 1983). The kind of sophomoric acrimonious arguments that permeate school boards, and public and political arenas, serve as no more than a divisive and divertive function. To posit an either or scenario is tantamount to fueling the fires of conflict, which have no higher goal than to spawn rivalries that preclude the public from accepting the dictates of empirically derived methodologies for the emerging reader. The historically hotly debated issue of whole language vs. phonics is specious. It has done nothing more than create controversy and conflict, and put the resistant reader at a greater risk for failure.

More important, then what instructional methodologies are used with the emerging reader, are the teacher's beliefs in the system of instruction and the consistent implementation of the system (Adams, 1990). There are over 100 different phonic instructional methods (Aukerman, 1971, 1984). Which is the best? Is there "the best?" The guiding principle is that letter-sound agreement is basic to the understanding of our written language system, and therefore, mandatory to the reading process. All of the phonics instructional methodologies have this common theme, the difference is in the detail and the presentation.

Whole language is less of an instructional methodology than it is a philosophy for reading. Phonics represents a method of code instruction. All of its systems can be operationalized. They have a beginning, middle, and an end. There are specific linguistic skills that must be learned that allow the student to decode the oral language that is in a printed format. Whole language, comparatively speaking, is much broader in its scope than phonics. It does not seek to instruct at the micro level as could be said of phonics, but rather at the macro level of language functioning and use. It seeks to amplify the quality of the total language experience that is being augmented in the basics of phonics. Whole language uses the backdrop provided by literature, science, history, and civics to attenuate the lessons of language, be they receptive or expressive, spoken or written, seen, heard or thought. Whole language is the philosophy of language, in all of its forms and formats, lending its cognitive and experiential expertise to the reading process.

While there is little question that a blend of phonics and whole language are desirable and beneficial to the progress of the emergent reader, it is its consistent application by a diligent teacher, of whatever instructional methodology, that provides the framework for most emergent readers to begin reading. Adams (1990) states it succinctly:

> Given the tremendous variations from school to school and implementation to implementation, we should be very clear that the prescription of a method can never in itself guarantee the best of all possible outcomes. However well defined the method might be, however stellar its documented research outcomes, classroom successes (and failures) depend on much more than the written agenda held out to the teacher. Indeed the remarkable power of innovation seems to derive directly from that well of possibilities between what is only on paper and what is in our hearts and minds, between what we are told to do in the classroom and how we actually do it.
>
> The second part of the point is that the vast majority of program comparisons studies indicate that approaches including systematic phonic instruction result in comprehension skills that are at least comparable to, and word recognition and spelling skills that are significantly better than those that do not. Furthermore, approaches in which systematic code instruction is included along side meaning emphasis, language instruction, and connected reading are found to result in superior reading achievement overall pp 48-49.

While it is certainly true that teachers and programs do make the difference for most emerging readers, this is not frequently the case with the resistant reader. Two factors that significantly influence the readiness of the emerging reader are those literacy experiences that occur prior to formal experiences, and the neuropsychological development of the reader. There is a great deal of truth to the statement, that the pre reading literacy experience an emerging reader possesses is the necessary and sufficient condition for most readers to emerge. This area of experience cannot be underestimated in its immense power to shape the reading behavior of the emerging reader. But then it only stands to reason that this area of experience represents the culture of the emerging reader's home learning environment; how important is that to all development!

The neuropsychological area of reading understanding is not well understood by the neuropsychologist, let alone those educational leaders who write in the professional reading journals. The nature versus nurture polemic is quintessential and inherent to any question surrounding reading development, and usually involves chasing one's own tail. It is a race

that cannot be won, at least with our present knowledge base. However, in the last ten years there has been new understandings of brain functions as a result of the new, and ever increasing sophistication of brain imaging technologies (Amen, 1994; Zametkin, 1991). These new brain imaging technologies are providing real time actual brain functioning imaging. Researchers are remapping their understanding of brain functioning within the framework of the scientific method, with the aid of brain imaging technology. Most recently there was an article in the newspaper related to such mapping. The opening paragraph extolled the virtues of brain imaging technology in the area of reading as "the first time that a part critical to reading has an impaired function in people with dyslexia" (Suplee, 1998). The researcher, Shaywitz of Yale University, describes the problem "as a glitch in the circuitry that makes it more difficult to link printed letters and words instinctually with the language sounds and the letters and words they represent." It would appear that she is looking at brain function (images thereof) that she has ascribed to the "place and process" of phonemic awareness, which of course is a process that is requisite to understanding and using the "alphabetic code," and is the essence of reading.

The new brain imaging technologies have the potential to synergygistically increase our knowledge of how to teach reading to the resistant reader. This kind of technology has been an immense help to the field of psychiatry in understanding the brain's role in disorders such as schizophrenia and attention deficits. For example, the role that medications play in changing the behavior of people so disordered i.e., the imaging technologies provide clinicians with real time brain activity pictures, thereby allowing the clinician to visually witness brain function and structural location of medication interactions. The implications of brain imaging as a tool to understanding the reading process, at the neurological level, are staggering and yet to be realized.

At a very simplistic level the nature/nurture dichotomy, or as the writer prefers, man's propensity to chase his own tail, may have some implications for teaching the disabled/resistant reader. The reason why the nature/nurture controversy is in fact a

controversy, is that man, in his infinite wisdom, is explaining the same phenomenon i.e., growth and development with two ostensibly diametrically opposed concepts of growth, namely the influence of inherited nature as opposed to the forces of environmental nurturing. Of course, these two factors are different conceptually, but the writer conceives of them as two sides of the same developmental coin. That is to say that the brain (motor development, language development, vision, social attachment, and the like) occur on an evolutionary based, developmental timetable, that is fine tuned and textureized by the stimulation of its developmental environment. The quality of that development is largely dependent on the quality and timing of the environmental stimulation i.e., one's pre literacy experiences.

Research indicates that there are windows of developmental times where the appropriate kind of environmentally based neuronal stimulation is imperative to normal development of those brain and nervous system structures responsible for language, motor development. perceptual development, (and reading) and the like (Begley, 1996). Research conducted at the University of Washington (Kuhl, 1996), has demonstrated that language sounds (phoneme) are mapped into a kind of perceptual auditorily map by the age of one. This early perceptual mapping explains why it is most difficult for Japanese students of English to pronounce the English phonemes ba's, da's, and ee's, as the phonemes the Japanese children learned were hi's and rr/ll's as a result of hearing these phonemes over and over, thereby stimulating the formation of dedicated connections in the brain's auditory cortex.

It is the developmentally timely (evolutionary) and appropriate (environmental) stimulation that begets the kind of language development that leads to developmentally timely and appropriate reading. What Kuhl's research is suggesting is that evolutionary consideration provides good circuitry for the conduction of language, and that for optimal development of language, timely and appropriate environmental stimulation must be present. There is in fact an evolutionary and environmentally appropriate window for this

language development, according to the research (Begley, 1996), and that is generally from birth until ten years of age. That is the window of time when circuits in the auditory cortex, that represent sounds, and later language, are developing.

The nature/nurture polemic is as ridiculous as the metaphor of the dog chasing its own tail, as they are both just different sides of the same coin. and therefore, the only thing to argue or catch, is the appropriate perspective. Both sides of the language coin stimulate development on the other side; there is reciprocity. This brings into play the importance of pre literacy (environmental side of the coin) learning to the foundation of reading development. Once the auditory maps have been laid down then it is time to conduct appropriate traffic along the circuitry in terms of literacy experiences. It is these experiences that prepare the reader to deal with the rigors of print as defined by the alphabetic code and its metalinguistic demands.

The link between successfully acquiring reading skills, in a formal instructional environment such as school, and the language related experiences in the home is clear, undeniable, and inextricable (Goldsworthy, 1996). It is the same link that was demonstrated above with the concept of auditory mapping. Those children who receive the proper kinds of language mapping experience, in the form of what literature calls pre literacy experiences, are those children whom have the requisite skills to break the alphabetical code. These are the language skills that are developed in the child as a result of their interaction with language. It is, in part, what the whole language philosophy "thinks" about reading. It is the child's experience with watching others read, being read to, imitating reading, having crayons and pencils and paper in the home, having a home that believes in the power of print, having letter magnets on the refrigerator, learning the meaning of the beginning of the book from the end of the book, learning that print flows from left to right and from top to bottom, having a chalkboard in the home that is used to communicate, having access to coloring books, playing letter/sign games while driving, watching mom write a letter to grandma, listening to recorded books and short stories,

singing the alphabet song, learning the alphabet through such experiences rather than by rote, and watching an older sibling print or write and then imitating with scribbles. All of these experiences, and many more like them, give the emerging reading a linguistic awareness. Without such experiences the emerging reader does not emerge, but rather the disabled/resistant reader is developed, and the consequences are tragic. The reader needs to note, that while the consequences are tragic, they are not the result, in most instances, of an inherited genetic flaw that precludes the emerging reader from emerging.

How important is the development of pre literacy skills? In terms of the manner in which almost all schools teach reading, they are of paramount importance. Most schools begin reading instruction at the letter/sound level. The school programs assume that pre literacy skills are in place, or worse yet, have little knowledge of the significance of pre literacy skills to the beginning reader. The literature on reading readiness experience is very explicit. There is a strong relationship between the literacy experiences children have at home prior to attending school, and their readiness to read (Holdaway, 1976; Adams, 1990; Goldsworthy, 1996; van Kleeck, 1990). Those homes that have books in them, writing and coloring materials, parents who model reading, and read to their children, are much more likely to have children who are ready to learn how to read when they come to school, as their mappings are already encoded. Children need to learn about the nature of the relationship between reading, writing, and language at home. They learn that print is language. They learn to mimic writing strokes in their play. Such play is a precursor to writing; it is the beginnings of literacy. However, before this kind of very important learning can occur there must be literacy in the home in the form of caregivers who have the materials and take the time to read and write with their children (Shook, Marrion, & Ollia, 1989).

It is the writer's belief that in many American families the home tables are not set for literacy when compared to the American homes of the past. In today's homes television and video games compete heavily for literacy time, particularly when compared to the

American home of fifty years ago when there were not televisions or video games. Fifty years ago the majority of American families had at least one caregiver in the home most of the time. In today's American homes the majority of the caregivers are not in the home most of the time.

Changes brought about by technology have heavily influenced our leisure time activities and influenced our economic system, which in turn has changed the manner in which the family interacts and functions (Healy, 1990). For many families they are doing all that they can to keep body and soul together. Their time away from work is spent on necessary household functions and there is little time left to do much more than to sleep and return to work the next day. Generally this is the case for both mom and dad. There is little time left for literacy events within the family. And when there is time, frequently this time is expended in the pursuit of leisure activities that have no literacy value.

Some children come to school well prepared to interact with print. They have been exposed to models of print in their homes. They have been read to for years. They know that the spoken word can be represented in print. They know that print can be represented in a hand written form because of their own experience. They know that the spoken word can be printed and therefore read, and the reciprocal thereof. They have had hours of experience with print in their homes. These children are experienced in the world of literacy. It is a major, natural part of their lives and a major vehicle for interacting with their world.

If, in a literacy laden home, a child who experiences print in some fashion everyday for about 20 minutes a day, from the time they are 18 months old until the time they are in kindergarten, they would accumulate about 425 hours of experience with print. Now compare that to a home where there is no time for literacy or no interest in literacy. In this family the child may come to school with less then 25 hours of experience with print. For further comparison, let us assume that the two children are in the same classroom as kindergarten students, and that they are receiving 20 minutes of instruction per day with

print related activities. Also 20 minutes in the first grade and also in the second and third grade. By the time they are in the fourth grade (the grade in which students are beginning to read to learn as opposed to learning to read) the student from the literacy home, factoring in school vacation time and continued literacy experiences at home (10 minutes per day), will have accumulated approximately 365 hours of print related experience upon entering the fourth grade. To this add 182 hours of home experience, for the same time frame i.e., kindergarten through third grade. Therefore, from the first 18 months through the first three years of school, the children from the literacy homes have 972 hours of print experience and the children from the less literacy based homes have only 480 hours. In many cases the less literate home children will never catch up to the more literate home children, and the gap will widen in all areas of learning, when as fourth grade students, both groups are expected to read to learn (Adams, 1990). It is relevant here to think in terms of the window for language learning, that as a result of minimal home literacy experiences, is prematurely closed, or at least not open as far as it needs to be in order not to become a disabled/resistant reader. It is also interesting here, to muse about the nature/nurture, the cause/effect, and reciprocity between the two in the development of the disabled/resistant reader.

Literacy comes from the home first. This is an easily documented fact. If there are sociological factors that have been brought about by the technological advances, which in turn have required a more literate society, then we as a society are in a bit of a "Catch 22." It would seem that the very technology that is requiring a more literate populace, is at the same time, inadvertently creating a social order that makes literacy a very difficult proposition.

The problem of students not having the necessary pre literacy experiences/skills are seriously compounded by the schools that do not understand how instrumental these experiences/skills are to the reading process. The children who do not have these skills must be identified immediately and placed into programs that provide these very important

experiences/skills and the time necessary to assimilate them. Systemically this does not occur in the writer's school. Special education is de facto designed for these children to fail before they can be identified i.e., the gap between performance and ability must be statistically wide. It can take up to three years of poor performance before the gap is significant, which is the key to qualifying for a reading IEP. The Chapter programs select children on a relative need basis. In this arrangement there is no guarantee that the neediest students will be selected.

Furthermore, in both the Chapter and special education programs, the reading programs are severely limited by time constraints. Frequently, these programs are designed to provide small group instruction for only 20 to 30 minutes daily. This is the way the system has been designed. There must be time for music, P.E., recess, library, lunch, and all the other academic subjects. All of school is based on a discrete time schedule, 7.5 hour days, 5 days a week, and 9 months of instruction per year and the like. Why do we do this? The answer is very simple, it is the way we have always done it. The culture is, in part, time managed by the academic school year. The family plans holidays and vacations based upon the academic calendar. The most unfortunate result of this kind of time management is that such inflexibility does not meet the needs of many students.

How will the children in the Adams' (1990) example ever get caught up in their pre literacy skills if they are forced to adhere to the conventional school calendar of 20 to 30 minutes of reading instruction 5 days a week? Remember, these children come to school with less than half the time in pre literacy training as their peers. The school calendar and scheduling of the 7.5 hours of school per day does not provide them a means to catch up. By the time these children are two months into the first grade we are calling them learning disabled. The teacher is teaching letters, sounds, and sight vocabulary. Many of the students who suffer from pre literacy deprivation have little understanding of letters and their sounds; have little concept of an alphabet or its function; do not understand the meaning of print, or that printed material conveys oral language and therefore meaning.

These children, to the untrained eye, (even to many trained eyes) would appear to be learning disabled. They are unable to gain meaning from symbols; they can't understand the meaning of symbolic learning; they may have language learning deficits as measured by poor receptive and expressive scores on standardized language evaluations.

These literacy deprived students mimic learning disabled student profiles. The standard response to these children is to put them into a Chapter reading program, which could mean anything depending on the Chapter teacher. In the writer's building it means twenty minutes a day working in a one on one didactic with a para professional under the direction of the Chapter teacher. In some way, shape or fashion the instruction revolves around phonetic instruction. When this program fails, and in a high percentage of the cases it does, then these students are processed through the MDT and into special education with the new label of learning disabled (LD). This whole process, from the teacher's first referral to the Chapter teacher, can take up to two to three years. Remember, to qualify as LD there must be a discrepancy between academics and ability. In most children this discrepancy takes about three years to develop before the discrepancy between ability and performance (academics) is strong enough to be statistically significant to qualify as LD. However, occasionally a student with incredibly poor literacy in the home can meet this discrepancy during the first grade.

For those students whom take two to three years to qualify as LD students, the school system can be an extremely unfortunate place to be. They learn that they cannot learn. They are systematically taught through their years of failure in the academic arena that they cannot learn. They learn that no matter how hard they try, they do not succeed like their peers succeed. However, they do learn how to avoid their teachers or how to avoid work. They either learn to internalize their failure and withdraw from involvement, or they externalized their failure and present behavioral issues to the classroom teacher (Caine & Caine, 1994). The cost to the student and to the society is difficult to measure, but to be sure, it is great.

Unfortunately once these children are qualified for special education, a program that is supposed to remediate their literacy deficits, these children are defined as at risk, unready, with limited ability, developmentally delayed, immature, and other such degrading labels (McGill-Franzen, 1992). The system of education known as special education immediately defines these children as having lower ability and *not* as "without" pre literacy experiences. They can look the same even to the trained eyed. The kind of assessment instruments used to qualify these students as LD, will not discriminate lack of literacy exposure from a learning disability. There is however, a qualitative difference, but the scores may well look the same. The system is not geared to evaluate the affects of lack of literacy exposure on pre school and elementary school success.

What typically happens to these children who are placed into special education, as they are "at risk for school failure," is that they are immersed into "skills," building programs rather than exposed to interventions that allow them expanded reading and writing opportunities. These children who have been qualified for special education do not need "skills," rather they need literacy exposure and opportunity. Many of the children are not LD, they are literacy deprived. Once these children are placed into special education programs with the LD label, which for many educators is synonymous with the label "slow learner," teacher expectations for their ability to learn is lowered (Allington, 1994). What typically happens in these programs are the lack of literacy experiences are mistaken for lack of ability and the programs are therefore "dummied" down to coincide with teacher expectations. It is in this way that special education interventions are Systemically and inadvertently designed to slow learning rather than to accelerate learning through exposure to connected, relevant, and meaningful literacy experiences (Caine and Caine, 1994; Sylwester, 1995).

Another very important piece of the reading puzzle, and related to special education assessment, is the assessment of reading. The writer has been witness to resource room teachers trying to develop a reading program through the use of norm referenced or

criterion referenced reading assessment tools such as the Woodcock/Johnson-Revised (1989) or the Woodcock Reading Diagnostic-Revised (1987). For the most part, all these tools do is confirm that the student has a reading problem, which of course was already known. These reading assessment instruments do not tell the user what the reading problem is or how to remediate it, but rather, that there is a reading problem affecting certain skill areas. Building skills does not make a reader. The skills deficit problems are outgrowths of instructional methods that did not consider pre literacy experiences, or lack thereof, prior to implementing regular or special education curriculum. That is, the reading program started downstream from the student's literacy achievement, thereby creating gaps and holes in the developmental reading process. The end result is skill deficits that appear to need remediation. What in fact is happening is the test data are documenting the results of poor pre literacy experiences that have been subjected to a curriculum that does not understand the nature and importance of such experiences.

The more functional, curriculum based measures (CBM) of reading are excellent measures of the end product of reading i.e. reading fluency (Shinn et. al, 1992). These measures are not comparing a student to a norming group but rather comparing a student with him or herself in a functional, formative evaluation. Reading fluency is an excellent measure of a student's reading ability as it is an excellent measure of reading comprehension (Shinn et. al, 1992). Most teachers are not aware of CBM and therefore do not have access to a very powerful evaluative and instructional tool.

In the writer's work place, special education teachers evaluate their students generally once a year. This evaluation considers comparative results from yearly norm referenced tests, usually the Woodcock/Johnson-Revised (1989). There are two major flaws with this form of evaluation. The first is that too much time elapses between assessments. Reading growth should be measured on a weekly basis so that growth trends toward pre established goals can be established, or not. This kind of measurement provides instant feedback to the teacher regarding program interventions. As a result, it is

easily determined if reading growth is occurring or not, and determine if the reading intervention should be continued, modified, or changed. The second flaw in yearly reading evaluation is that the data from a norm referenced evaluation is too abstract and does not speak to the specific needs of the student. It forces the teacher to think divergently about the reading deficits, where CBM allows the teacher to converge on the instructional deficit that is preventing the students' rate of fluency to increase, and it does so on a daily or weekly basis. CBM is a tool that makes the teacher question the efficacy of the reading intervention everyday. It is a tool that makes the reading teacher think convergently about a student's reading problem, ask questions about the student's performance, make program adjustments and receive immediate feedback, and thus take responsibility for students' reading progress everyday. CBM is a tool that evaluates two performances; that of the student and that of the reading teacher, and allows the teacher to find appropriate reading interventions for their students more efficiently. Time is of essence with these students as they are behind and need to make rapid and efficient reading gains if we really expect them to catch up to their peers.

Good language development is a necessary but not sufficient condition for reading to occur. This would seem to be abundantly clear if one noticed that reading print is just another form of oral language. It would appear to be a very logical deduction, but in reality it is not. In the writer's school there is no consideration given to speech and language deficits as a source of reading deficits. However, there is a growing body of empirical evidence that confirms this relationship (Goldsworty, 1996). It stands to reason that if a child has difficulties in processing higher level oral language in terms of morphology, syntax, semantics, or phonological processing (encoding, retrieving, and using phonological codes), that these difficulties will follow the student into the print level of oral language, or reading. Unfortunately, the relationship between language deficits and reading instruction in the writer's school is all but non existent. This would also be true of the writer's school district. The literature (Catts, 1989; Morrison, 1991; Wright & Groner,

1993) draws a relationship between developmental language disorders and reading development. In general terms, to the extent that a student has a language disorder, depending on the extent and kind, there will be difficulties in developmental reading. This sounds logical enough, and there are data to support this relationship, yet most reading programs and teachers do not evaluate the nature of the student's language prior to beginning reading instruction.

To understand the nature of the relationship between language and reading it is necessary to understand one of the most misunderstood concepts represented in the English language known as "dyslexia." The mere mention of the word by a parent in the context of..... "would you test my child for dyslexia....," would send the writer into the depths of consternation, knowing immediately that there was an "understanding gap" between the writer and the parent that could not be easily bridged. The concept of dyslexia first appeared in the literature sometime in the 1800's (Goldswordy, 1996). It has been used in so many different contexts since that time, and has been defined and redefined to mean virtually nothing but confusion. Conceptually it is similar to attention deficit hyperactivity disorder. They are both syndromes in that they both represent characteristics of a problem, but no one characteristic defines the problem, and all of the characteristics represent nothing more than an abstraction. To further complicate this already fuzzy picture, most interpret dyslexia to be a condition that is objectifiable and treatable once it has been "scientifically" unmasked, presumably by a test of some sort.

The concept has been variously described as a reading problem relating to visual perceptual problems; or difficulty repicturing the sequencing of letters, sounds or units thereof, in the order in which they have been written or spoken (Sawyer, 1992). Orton (1968), believed that dyslexia was a difficulty in making and mentally finding associations between the sound patterns that are used to make oral language and the letter symbol patterns of the same sounds that are made into words. It would seem that over the years the concept of dyslexia has been related to the symbolic language i.e., letters, sounds, and

words. With this kind of a conceptualization it is easy to understand why dyslexia has frequently been related to words rather than sounds and therefore, remediation has been focused on printed language rather than oral language, which is the basis for the symbolic or printed language.

More recently the literature (Catts, 1989a; Catts, 1989b) has reconceptualized the nature of dyslexia from being primarily based on reading, to that which is primarily based on a developmental language deficit. It is not just a generalized language deficit but rather one that is directly related to phonological deficits. Catts understands dyslexia to be a developmental language disorder that persists throughout adulthood and is rooted in phonological processing and precedes, is present with, and follows reading disabilities. Catts believes that reading deficits are a function of phonological processing and are present in metalinguistic functioning of speech and sound segments and speech production. Aaron and Joshi (1992) relate dyslexia to great difficulties in quickly and efficiently assigning the right sound to the written or printed word, while the Orton Dyslexia Society (1994) states that dyslexia is a specific language-based disability that is characterized by difficulties in single word decoding that is generally related to phonological processing skills. This is precisely what Yale researcher, Shaywitz, is referring to with her brain imaging research i.e., what is suggested as being the location of phonological dysfunction in the brain.

The literature of the 90's is talking about reading disabilities that are highly related to language-based phonological processing disorders that impair the emerging reader's ability to decode words in a manner that is automatic and quick, leading to comprehension. Livesay (1995) states the incidence of this disability is about 20 percent of the population, and furthermore, is identifiable with 85 percent accuracy in children at ages 5 1/2 to 6 1/2. Additionally, early intervention is essential. It would seem that it is essential to set the tone about reading and learning at a young age in an effort to avoid the student learning that he or she cannot learn, which so often happens before the students have the opportunity of identifying the "self" as a capable learner. Interestingly, in the writer's opinion, CBM can

be a major player in preventing the student from identifying "self" as an incapable learner in that with continuous formative measurement, failure is less of an option.

The language piece represented by what the writer believes to be an appropriate and descriptive conceptualization i.e., phonological dyslexia, leads the discussion back to the nature/nurture discussion. For the writer, the nature side of the emerging reading problem is represented by the brain-based phonological processing disorder, and the nurture side can be represented by the lack of language and print experience during the formative pre school years. Both are different sides of the same coin and may in fact influence each others development through the window of time wherein language is stimulated and acquired in the pre school home environment.

In addition to the problems with phonological processing or brain-based neuropsychological contributions to reading development and poor pre literacy experiences, during the before school years, there are teaching problems both in the school and at home as well. The school problem is distinguished by what the writer perceives to be teachers whom are not prepared to teach the phonologically impaired, or those students who come to the reading table utterly under schooled in the experiences of pre literacy preparation. The home problem, begets the school problem in terms of not preparing children for the rigors of the language requisites for reading readiness.

The writer has asked all of the kindergarten and first grade teachers in his work site what interventions or methods they use to teach those student who cannot learn their letters or sounds, or who cannot sound out words at a rate that is conducive for comprehension. Furthermore, the writer has asked how teachers set and measure reading goals. These questions were asked of seasoned teachers with 15 to 30 years of teaching experiences. Their answer was, "more of the same thing," more repetitions; approaching the letters and sounds from not only visual/auditory perspective but also from a tactile and gross motor perspective. They continue dutifully to teach letters and sounds as the first step in the

reading process. Their reading goals are usually based on which book the student has reached in a basal reading series.

It is the writer's belief, as stated in the beginning of this proposal, that the teachers at the writer's work site are teaching too far downstream from the reading needs of their resistant readers. They need to examine the extent of their resistant readers' pre literacy experiences and start remediation at that point. This is easy to say but most difficult to do in the regular classroom, given the number of students and the time constraints, both of which are products of a standardized system of time management and school scheduling; yet another problem.

In discussing the reading problems of these children with their parents and caregivers it was egregiously clear that none of the parents understood the nature of reading, nor how to be of assistance to their children, all of whom desired to assist their children. These findings were expected as the parents lack understanding of "what" is needed to prepare their children for reading. This is a major factor why their children are unable to read at their grade level. It is clear to the writer, that in addition to a school reading program that examines pre reading skills as part of the remedial method, parents need to be taught how to not only meet the reading needs of their children but also be involved in setting reading goals at home and measuring the trend toward achieving those goals.

These children are not going to catch up on their reading skills without a concerted effort on the part of the home and the school to first determined what language/reading experiencing these disabled/resistant readers need, and then developing strategies, goals, and a means of measuring progress toward those goals.

Chapter III: Anticipated Outcomes and Evaluation Instruments

Goals and Expectations

The goal of the practicum was for the selected practicum students who were, and are, presently special education qualified and served in the resource room in the areas of reading and/or written language, to improve their reading fluency rates to a level that permitted them to learn through language related activities in their regular classroom with normal teacher assistance and curricular adaptations where necessary.

Expected Outcomes

The following outcomes were projected for this practicum:

1. The first expected outcome was that the six children's regular education teachers would rate these children as being able to learn through their reading skills within the regular classroom however, with additional but normal teacher assistance.

2. The second expected outcome was that the six students' parents/caregivers would rate them as better readers at the conclusion of the practicum intervention when compared to pre intervention ratings.

3. The third expected outcome was that the six practicum students would be able to say and write their alphabet and say their corresponding sounds at rates faster than prior to the practicum intervention.

4. The fourth expected outcome was an increase in WJ/R standard scores in the following selected subtests: word attack, letter-word identification, vocabulary, passage comprehension, writing samples, and basic reading.

5. The fifth expected outcome was that the six students' post practicum intervention reading fluency rates, in terms of words read per minute, would increased from pre practicum levels.

6 The sixth expected outcome was that the practicum students reading fluency rates would increase at a rate that is faster then their classmates for the same time period of the practicum.

7. The seventh expected outcome was that teachers would perceive these children as less at-risk of school failure.

Measurement of Outcomes

The first expected outcome was that the selected practicum students would be rated by their regular education teachers as being able to learn, given their reading level, within the regular classroom with normal teacher assistance. The expected outcome was measured by a pre/post teacher rating scale designed to assess teacher perception of a number of language and reading related variables appropriate to the students' grade level functioning. The standard of achievement for this outcome was a change in teacher perception of the student that is statistically significant in favor of the post rating perceptions using a t-test of rating scale means.

The second expected outcome was that the students' parents/caregivers would rate them as better readers at the conclusion of the practicum intervention when compared to pre intervention reading. The standard of achievement was any percentage of difference between the two rating scales in the direction toward betters readers.

The third expected outcome was that the practicum students would be able to say and write the alphabet and say their corresponding sounds at rates faster than prior to the practicum intervention. The evaluation tool was an arithmetic comparison of pre practicum rates of letter saying and writing, and sounds per minute. The standard of achievement was a statistical difference in the rates per minute in favor of the post measure using a t-test of arithmetic means.

The fourth expected outcome was an increase in WJ/R standard scores in the following selected subtests: word attack, letter-word identification, vocabulary, passage comprehension, writing samples, and basic reading. The evaluation tool was a pre and

post comparison of the WJ/R standard scores of the selected subtests. The standard of achievement would be a statistically significant increase in the standard scores between the pre and post measures, in favor of the post measure using a t-test of standard score means.

The fifth expected outcome was that the students' post practicum intervention reading fluency rates, in terms of words read per minute, would have increased from pre practicum levels. The evaluation tool was an arithmetic comparison between words read per minute at grade level prior to the practicum intervention compared to words read per minute at grade level post of the practicum intervention. The standard of achievement for this outcome was a significant statistical difference between the two reading rates in favor of the post measure using a t-test of arithmetic means.

The sixth expected outcome was that the practicum students' reading fluency rates would increase at a rate that is faster than their classmates for the same time period of the practicum. The evaluation tool was an arithmetic comparison of words read per minute between the practicum students and their classmates, both pre and post of the practicum intervention. The standard of achievement for this outcome was a statistical difference between the two group's reading fluency rates, in terms of words read per minute in favor of the practicum students, using a t-test of arithmetic means.

The seventh expected outcome was that teachers would be less likely to perceive these children as being at risk for school failure. The evaluation tool was a pre/post practicum rating scale designed to assess teachers' perception of the practicum population as more or less likely for school failure. The standard of achievement was any percentage of difference between the two rating scales in the direction of less likely for school failure.

Chapter IV: Solution Strategy

Statement of Problem

The problem to be solved in this practicum was special education resource room students who have average measured intellectual ability, who read at or below the 10 percentile on curriculum based reading measures and on the Woodcock/Johnson Psycho-Educational Battery-Revised (W/J-R), and who have been exposed to all manner of reading programs and interventions with little or improvement in their reading ability. These students have a rate of reading growth that is discrepant from that of their classmates in that it is two to three times slower in terms of reading acquisition for elementary age students, and ranges upward from a four to seven year delay as junior and senior high students. The problem therefore, was those special education students whom read at or below the 10th percentile when compared to their age appropriate peers, despite exposure to the best reading programs and strategies offered by the writer's school district.

Discussion and Evaluation of Soulutions

There are as many solutions to problem reading as there are problem readers; that is to say that impediments to reading are highly idiosyncratic, and therefore must necessarily be approached individually. It is the writer's belief that most teachers of initial reading know very little about language, how it is derived, and how instrumental it is to the reading and writing process. Language and it acquisition is very abstract and not easily understood. One can understand, for example, what syntax or pragmatics are but understanding what they are in terms of function, is not nearly the same thing as

understanding their metalinguistic functions nor their neuropsychological processing. It is not the writer's belief that those who teach reading, particularly initial reading to emerging kindergarten and first grade students, need to have state of the art knowledge of neuropsycholgical functions of language, but the writer does believe that an understanding of the relationship that language has to reading and writing is indispensable.

Words and their usage are language. It is difficult to escape the importance of words to the reading process, but it would seem very easy to disregard their language functions. However, their language functions are what gives them life and meaning beyond the naming power of nouns or the descriptive function of adjectives. Language, and its functions, are the meaning agents of the words. They are instrumental to the letters, sounds, and abstract rules that make up the components of their production.

Language has metalinguistic and neuropsycological properties. The kinds of functions and processes that are entailed in language skills are represented by listening comprehension, a sense of verbal analogies, phonological awareness, syntactical processing, rapid automatized naming, expressive and receptive vocabularies, memory for sentences, and oral vocabulary of synonyms and antonyms are but a few of the skills that are a part of language and necessary for good reading. Therefore, it is not only necessary to learn letters and sounds to read, but also the vast language functions that they represent.

Most reading programs are implemented based on how the teacher has been trained. This would seem to be obvious and therefore not necessary to state. However, most teachers are trained to instruct those children who are intact in terms of their oral language development, which are the greatest preponderance of children. Most reading programs for those children who are not finding reading success are modeled after traditional reading programs (Adams, 1990; Routman, 1996).

Within these programs empirical comparisons are difficult because the nature of the reading programs are individual and interpreted by the reading teacher in charge of the program, and therefore, program comparisons are confounded (Adams, 1990; Chall,

1983). To be sure, in comparisons between and among reading programs, the single most salient consideration, which defines the success or failure of the students, is the teacher. Such a finding should not be surprising. The teacher makes the difference because she/he sets the emotional tone of the classroom. The literature outside the direct field of reading that speaks to the emotional components of learning, would find no difficulty accepting such a statement as pure fact (Caine & Caine, 1994, Csiksentmihalyi; 1990; Goleman, 1995; Healy, 1990; Sylswester, 1995). Teachers always have been, and always will be, the instrumental and pivotal points of the children's learning. Teacher relationship, rapport, acceptance, understanding, and caring are all necessary conditions for learning, and for some students may also be sufficient. The emotional experience a student has with her/his teacher is of paramount importance to learning, whether it be reading or learning how to play jacks. " 'Experience is the chief architect of the brain' " (Perry as cited in Nash's report. 1997, p. 55). Healy (1990) contents that "If the emotional brain is preoccupied with fear or anxiety, it may fail to activate the proper cortical switches for attention, memory, motivation, and learning. A child who is emotionally stressed may literally have trouble getting the brain's juices flowing for academics" (p. 239). Stiggins (1997) claims that "...affect and achievement cannot be separated from one another in the classroom" (p. 322), and Goleman (1995) states that "learning does not take place in isolation from kids' feelings" (p. 262). Caine and Caine (1991) talk about a concept they have termed "downshifting," drawing on the mechanical analogy where one shifts from a higher more congruent gear to a lower gear that speeds up the RPMs of the brain. Their intent was to describe the phenomenon of "downshifting" emotionally and ending up in a gear or an emotional state that was not anticipated; one that is moving at a much faster emotional pace than is appropriate for optimum learning. "The central feature of downshifting is a sense of helplessness. The brain downshifts under perceived threat ....and....the learner becomes less flexible...." (pp. 94-95).

The teacher's understanding of the child's emotions in the art of teaching is as important to learning as the materials that are being taught. The child's emotional state and the emotionality of the classroom is a main ingredient in the learning formula. It is something that is taken for granted by many teachers and completely overlooked by others. It is so obvious that it is quite often not recognized. The writer believes that downshifting occurs frequently to the reading disabled/resistant student. When the child is not able to readily grasp the basics of reading, due to the very complex nature of language and reading and our limited understanding thereof, frustration and emotionality run rampant on the part of both the teacher and the student. It is therefore extremely important that when strategies and interventions are not having the desired result, that care be taken that downshifting does not occur on the part of the learner or the teacher.

Switching to another component of reading, the vast majority of comparison studies (Adams, 1990; Chall, 1967, 1983; Pflamum et. al. 1980; Routman, 1996) all conclude that those programs that teach the use of systematic phonics instruction to teach reading comprehension are better than those programs that do not. However, this same research recognizes that the best of all reading instruction occurs when systematic phonics instruction is combined with a meaning emphasis, language instruction, and connected reading.

The question then, is how well does code instruction and meaning based reading programs work for the disabled/resistant reader? If the results that have occurred in the writer's school are any indication, not very well. It is not that there is a problem with the kind of code instruction, as there are over 100 to select from (Aukerman, 1971, 1984). They all teach letters/sounds; the alphabetic code. The manner in which they introduce and develop the code is variable, but the basic phonetic principles are the same. It would seem that there is no code program that meets the needs of all students, which certainly makes sense to the writer, as all children are not the same despite many of the production line systems that exist in education today. It would seem that the more we try to introduce

change into all aspects of education, the more we remain the same. Systemic change is a difficult proposition.

Classic research (Bond & Dyskstra, 1967; Chall, 1967) and more recent, but based on earlier research (Adams, 1990), have documented the correlation between first year reading achievement and knowledge of the alphabet. This is not a surprise however, it is not the letter knowledge per se that accounts for the correlation, rather the manner in which the letters were learned. It is not the rote memory of the letters that is being measured here, but rather the kinds of language experiences that surrounded the letter learning, and ultimately led to the "meaning" of letters and their relationship to words and language. The research is measuring language experience over time and its impact on early reading. The writer believes that this kind of documentation points up the important relationship between phonics and whole language; as it was not the letter knowledge that was responsible for the correlation, rather the language experience that led to letter knowledge. It was experience with letters, within the context of a meaningful language experience, that led in part to reading acquisition. While the letter knowledge was a necessary condition for the correlation to occur, it by itself, was not a sufficient condition. In addition to the letter knowledge relationship to emerging reading, phonemic awareness, and other linguistic awareness understandings such as syntactical understanding, pragmatic awareness, and phonemic segmentation, are also necessary conditions for meaningful reading to occur (Goldsworthy, 1996; van Kleeck, 1994).

This brings the discussion to intelligence as a factor in reading. After all, using language is a higher order cognitive function, and language with all its functions, is the main currency of reading. Without a working understanding of language, reading with comprehension is not possible. The literature (Adams, 1990) use to suggest that the teaching of phonics prior to a mental age of seven was not advisable. The age of seven was predicated on research that was flawed, and to some extent based on our understanding of intelligence. However, it is the writer's belief that what is relevant is the

extent to which language functions are related to the measurement of intelligence. It is to that extent that intelligence is relevant to reading.

The seminal work of Piaget (Thomas, 1996) would appear to be very relevant here as it brings into focus, most articulately, the relationship between intelligence and reading ability. Piaget was a developmentalist and an excellent observer of human behavior. The writer believes that his work in the area of cognitive development is important to reading, as his conceptualization of cognitive development has relevance to the understanding of reading readiness. First, it can be said that reading can only be moderately predicated by I.Q. scores, but more reasonably predicted by certain measures of what we have come to call intelligence. It would seem that the measure and the concept of intelligence leaves much to be desired (Gardner, 1985; Goleman, 1995), though it would appear to be eminently clear that there are parts of the present concept of intelligence that have implications for reading. The first, and the most important concept, is the ability to conceptualize in the abstract. For example, language is not all nouns, that is to say, not all words represent concrete objects. In terms of language ability, the child must recognize that words mean things, and the things have words or symbols that represent them. An intellectual requisite to reading is to have the cognitive ability to be able to think about language as objects, the same way as we think about nouns. That is, the "metalinguistic" ability to take abstract language concepts such as beautiful, restful, or literacy, as well as, rush, bitter, or better and find their concrete referent. Reading requires the reader to have the intellectual ability "to do" the mental gymnastics necessary to abstract the nature of language and sort out its many referents to the correct referent. This must be done in terms of syntax, meaning (which can be a function of syntax), pragmatics, inductive and deduction word/concept reasoning or classification language reasoning. In essence, reading requires that the reader be able to play with and manipulate the abstract nature of language in an effort to form higher level meaning relationships. Wallach and Miller (1988), refer to this as metalinguistic thinking. van Kleeck (1994) says that language

awareness is an essential part of reading if the child is to be capable of deriving sentences into words and words into syllables and isolating the sounds within the words, and arranging words into grammatically correct sentences. In other words, the child must have an abstract understanding of language. It is not enough to know that print represents oral language, the child must have the intellectual development that allows the child to juxtapose language parts and functions to produce meaning.

Piaget developed a schema (Thomas, 1996) for the conceptual understanding of human development, which is relevant to language, and therefore, reading. The first stage is called the Sensorimotor Period (birth to two). This is the period in which the child interacts with his physical environment and develops conceptual understanding of time and causal relationships between and among objects in space and time. The second stage, is the Preoperation Thought Period, from about age 2 to 7. In the main, this stage relates to the child's cognisity to classify the "concrete," that is, the ability to conceptualize the meaning of classifications, reversals thereof, and all manner of manipulations of the concrete classifications. The third stage, the Concrete-Operations Period from age 7 to 11, means the child is developing the ability to identify objects that are real or imagined, and use language to think and process in terms of the concrete or the abstract (formal), to problem-solve with language i.e.,

> Concrete: If Alice has two apples and Caroline gives her three more, how many apples will Alice have altogether.
>
> Formal: Imagine that there are two quantities which together make up a a whole. If we increase the first quantity but the whole remains the same, what has happened to the second quantity. (p. 249).

The fourth stage, the Formal-Operations Period, from about age 11 to 15, is characterized by thinking that relates the past, present, and future with the ability to think in terms of "if-then" scenarios; the ability to use language in the abstract and develop hypotheses and draw conclusions. For example "If Edith is fairer than Susan; Edith is darker than Lilly; who is

the darkest of the three (Piaget, 1970, p 149). This kind of language processing does not occur until the mid teen years.

There is a natural and developmental sequence to intellectual development. As the physical nature of the brain develops it needs environmental stimulation to interact with. This brings us back to the nature/nurture question. In this context, one might ask the extent to which language development is a function of pre literacy experiences and what is native ability? In terms of intellectual assessment, verbal skills are, in large measure, instrumental in the assessment of intelligence. Therefore, is intelligence a function of genetically derived native ability, or is it a function of appropriate language experiences at the appropriate developmental times? This is an important question as there are those who would say that without the intellectual ability, how can we expect lower functioning students to read well? But if what we are calling intelligence is in large measures a function of language development, which is in large measure a function of pre literacy experiences, then it could be said that an I.Q. is heavily influenced by language and pre literacy experiences, and can therefore, be manipulated by appropriate language learning experiences.

It is the writer's belief that lower functioning students, those that are on the ragged edge of low normal ability, can be good readers provided they are given the necessary literacy experiences, and with these experiences their language skills, as well as their I.Q., will be increased.

Aaron and Joshi (1992) have divided developmental reading disorders into three categories based on their review of the literature. The first they call developmental dyslexia or specific reading disability. The premise is similar to that first presented by Catts (1989a), as mentioned earlier. This disorder is characterized by phonological difficulties. The second, has been referred to as generalized reading disorder which presents with poor decoding and lower reading comprehension, and has been depicted by Aaron and Joshi as reflecting a lower intellectual ability. The third category has been called a nonspecific

reading disability that is characterized with very good decoding and fluency skills but very poor reading comprehension.

It is the writer's opinion that the first two reading disabilities, while different in their presentation, have their origins in pre literacy language development, and that I.Q. is simply a measure of that experience as it occurred in a developmental model such as that of Piaget's. In other words, I.Q. is significantly related to receiving the appropriate language experiences at the appropriate developmental times, and should not be used as an indicator of the kind of reading experiences a lower I.Q. student *should* be exposed to.

The last disability sometimes called hyperlexia (good fluency, poor comprehension) in its more severe form, is associated with autistic behavior. This type of reading disability would appear to be on the nature side of causation, having little if any environmental correlates, and there appears to be little understanding of its defining characteristics or how to teach to such a disability.

While the manner in which educators understand the nature of intelligence in the reading process is basic to their instructional strategies, there are several other considerations that need to be focused, and would appear to be the skills that readers acquire due to the quality of their pre literacy experiences. The reading teacher must have an understanding of how word appearance in text is developed. Here again much of this development is based on the emerging readers experiences with print, word meaning, and word pronunciations. With this experience and with formal instruction the child develops an understanding of print and words and the similarities and difference between and among words and word patterns (Seidenberg & McClelland, 1989), provided that the child has had the proper experiences at the appropriate developmental times i.e., Piaget's second stage of development.

Reading is also dependent on comprehension, and comprehension is, in part, dependent on meaning, which is reciprocally derived from both word meaning and contextual meaning. Contextual meaning is achieved through interpretation of both the

orthographic code and the phonological code and, subsequently elicits meaning in the reader (Stahl et. al., 1990). The basis for comprehension again, is downstream on both sides of the alphabetic code i.e., orthographic processing in conjunction with phonological processing converge to bring meaning to the reader over time and experience. However, without the requisite literacy exposures upstream, both the orthographic processor and the phonological processor do not develop with consistency.

As can be seen with all this rhetoric about up and downstream learning, and pre literacy experiences, and their relationship to intelligence and metalinguistic ability, and the two sides of the reciprocal nature/nurture coin, and Piaget's scheme of things; it is easily seen that reading is a developmental process. However, within this developmental process, that has been formally documented by a number of contributors to the literature (Adams, 1990; Chall, Jacobs & Baldwin, 1996; Goldsworthy, 1996; Rees, 1994), there are any number of age and developmental skill based schema that document the developmental nature of reading that are not unlike the schema presented by Piaget close to 50 years ago. If the emerging reader would just follow one of these schemes there would be no reading problems! Unfortunately, learning how to read for many children, particularly the students in this practicum, is anything but a stepwise developmental progression. With this population of readers one must not become confused with developmental models, as these students have their own idiosyncratic developmental timetable that must be understood if reading is to occur.

Paradoxically, reading does not appear to be difficult or complex until one cannot do it. Then, for most reading teachers, the proverbial wall goes up, and teaching and learning go down different roads. Teachers in the writer's school will unanimously say that all children approach reading somewhat differently, but most readers seem to make the adjustment to instructional methods and begin to read with little difficulty. But there is this consistent 20 percent of the children who struggle, some significantly more than others. They do not have the skills to be upstream where the instruction is taking place. In most

production line programs, that are products of curriculum development committees and Chapter and special education programs, there is a belief that more is better. It is not a conspiracy, it is what the writer likes to call the deer in the headlight response. The reading teachers are frozen like the deer who is startled by the headlights of an oncoming vehicle. They do not know what to do with this 20 percent of the population. Their instructional frame of reference is that of the school districts', which is a system that is designed to mass produce readers. Any manner of general reading programs that offer systematic decoding and vocabulary building, with consistent practice, will lead the great preponderance of emerging readers to read, but it will not necessarily lead the reading disabled/resistant student to read.

The typical response that most seasoned teachers have, is that "more is better." They go after the disabled/resistant student with a benevolent vengeance. The student is exposed to a plethora of phonic-like experiences until either the teacher or the student, or both, mentally burn out on the process. The experience has taught the teacher that he/she cannot teach the student, and the student has learned, at the very least, that he/she is different, and that reading is hard if not impossible. This is a very grim lesson to learn when you are six years old. The residual effects on that student's perception of "self" as a learner can be devastating (Goleman, 1995). The lesson is further exacerbated when the student is processed into a Chapter program, and more of the same teaching crimes are perpetrated upon the learner, only this time with more intensity.

In the writer's workplace this kind of scenario can, and in some cases, does go on ad nauseum. It is not because the teachers do not care, quite the opposite. Most of them care very much and their tenacity is a testament to their caring. They just do not know where to turn. Most are stuck at the print level of instruction and continue to work on letters, sounds, word families, sight vocabulary, contextual clues, and vocabulary building. Many of these teachers do not understand the impact that poverty of pre literacy experiences have on the children and their ability to relate to print. The teachers continue to

do what they do best, they teach what they know. But if what they know does not get the student moving, then damage is being done and frustration begins to play a major role in the teaching/learning dynamic. The whole instructional and learning process begins to spirals downward.

One way to prevent these scenarios from playing and replaying is to measure the effectiveness of program interventions. In the writer's school, at least in the regular and in the special education program, the element of good measurement is missing. Measuring how a student is progressing in an instructional program is a powerful teaching tool. In terms of assessment in the writer's school district, the special education students are required to be evaluated by the special education teacher once per year, and a minimum of one time per three years by the MDT as mandated by the federal government. The nature of these evaluations are abstract, as the evaluation tool is the Woodcock/Johnson-Revised, and its use has been mandated by the school district. The W/J-R is abstract in that it compares students to nationally referenced normed groups on skills such as spelling, punctuation, word attack skills, reading comprehension and the like. For most of the reading disabled/resistant students the assessment is meaningless as it does not speak to their specific areas of difficulties only to generalized needs. The assessment is summative and not formative and therefore, does not articulate the nuances of need nor the nuances of the appropriateness of the interventions, whatever they may be.

In the writer's opinion, dynamic-formative assessment is as important to meeting the readers needs as the program itself, and furthermore, the more precise the assessment is the more meaningful it will be to the teacher and the student in terms of knowing which intervention is working for the student and which is not. Given, that without the proper and timely reading interventions these reading disable/resistant children may never catch up to their peers, or be literate for that matter. Without a good method to measure reading progress, or lack thereof, there is no way to assess the effectiveness of the total program or determine interventions. Therefore, it is incumbent upon the professional to make the best

use of the time the student has, and that can only be done by dynamically measuring the students' response to programs and interventions. Time is the one commodity the reading disabled/resistant student cannot afford to waste.

Also in terms of measurement, given the climate in the country with regard to special education laws and the plethora of lawsuits that are easily generated thereupon, good measurement not only assures good instruction, but good instruction that can be documented is formidable protection against the expensive and disruptive nature of litigation. In the writer's opinion, measurement is the only cost effective antidote to a social system that breeds lawsuits as an integral part of its culture.

At the outset of this proposal the writer made the statement that reading is most probably the most complex of human behaviors. The literature does not adequately explain how the process works at the neurological level. However, at the behavioral level the literature has been able to document what kinds of behaviors must be present for reading to occur (Stahl, Osborn, & Lehr, 1990). Also there have been several theoretical models advanced to provide a frame of reference for the understanding of the reading. These are useful models as they lead to a better understanding of the complexity of the reading process and they also lead to useful instructional programs. The writer believes these attempts to make some kind of order out of a very complex process are important as they demonstrate what some experts in the field of reading believe to be important considerations. To that end the writer would like to review some of these models seeking to understand this gift we call reading, to the end that such an understanding will aid in the development of meaningful reading programs for the reading disabled/resistant student.

In her book, Stages of Reading Development, Chall (1983b), presents a developmental model of reading. Her focus is most appropriate, as reading is a very stepwise and developmental process. It is interesting to note that Chall's reading stages, in terms of what the child should be capable of demonstrating at successive ages, corresponds to Piaget's cognitive developmental model. The major difference between the two is one of

emphasis. It would seem obvious, due to maturation, that a child would be able to perform at higher levels with experience and development. Here again we are talking about the nature/nurture issue. Chall's stages are age based and experienced based. In the first stage the nature part of the dyad prepares the child cognitively while the nurture part exploits the child's readiness to read. The first stage represents the years of pre literacy experiences that prepare the child for the rigors of a more formal approach to reading. In the writer's opinion, Chall's first stage is the key to successful reading. It is the bedrock of the reading experience. Without this foundation, the reading instruction that follows may be misconstrued and distorted by the child to the consternation of the kindergarten and first grade teachers. The second stage constitutes the initial reading stage wherein decoding is learned, usually from 6 to 7 years of age. The third stage is the fluency stage where the child is making the decoding work and using context for greater comprehension. The next stage Chall refers to as reading to learn "new." Previous to this stage the child was learning to read, at this stage the child is reading to learn. Reading is becoming an independent activity. The next stage, which is characterized by what Chall calls "multiple viewpoints" and occurs during the high school years, reflects the student's ability to compare and contrast ideas in print. The last stage in Chall's model is called construction and reconstruction. This is a high level of concept forming and word smithing. The student is able to synthesized ideas, juxtapose them, and create new meaning.

Another reading model, and a recent entry into the conceptualization of reading and its development comes from Western Australia, and is called First Steps Reading Developmental Continuum (Rees, 1994). However, it is far more than just a conceptualized developmental model. The model, is developmentally very similar to Chall's, but it has a complete diagnostic piece and remedial piece that is behaviorally based. Within each developmental stage it defines, in terms of behavior, what the student should be doing at each stage. Furthermore, it provides interventions in terms of what the teacher should be doing within the stages to stimulate or elicit appropriate reading stage related

reading behavior. It is therefore a developmental model that is closely tied to an instruction model and appears to be an excellent teacher training device, as well as a reading program.

The first stage in the continuum model is called role playing behavior and is the same as Chall's first developmental stage. In this stage the child "plays" at reading. As can be seen by our previous discussion, this is a very important stage and is consistent with the Piaget model. In this stage the child is cognitively ready to cope with exploratory reading behavior however, the environment must provide the appropriate "pre literacy" experiences; the appropriate stimulation or nurture experiences. The second stage is called the experimental stage and it is the same as the second stage of the Chall model. It follows the same age and reading behavior benchmarks. This is the stage wherein the emerging reader experiences "first contact,'' i.e., the child makes the connection between print and language. The next stage is the early reading stage wherein the reader is reading unfamiliar words and whose focus is limited to the page, the words, and very little else. The fourth step is called the transitional stage. Here again the reading behavior demonstrated by the reader is the same as that in the Chall model. The reader is transitioning from learning to read, to reading to learn. The reader is able to apply various reading strategies and adapt to various texts. This stage demonstrates reading behavior that is exemplified by the cognitive development that Piaget has documented in his concrete-operations period as it progresses into the formal-operational period. The last stage is the kind of reading that is expected of high school and college students. It is automatic, independent, and allows the reader to connect existing knowledge to new knowledge. It is a place where the reader can use print to synthesize existing concepts into new ideas.

Frith's (1986) theoretical contribution to the understanding of reading is a stepwise progression that integrates literacy acquisition to reading and writing. Each phase is dependent on the previous stage. The first stage is called the logographic phase, and in Frith's model the distinguishing feature is the child's emerging ability to recognize the relationship between oral and printed words. Firth believes that oral language is based on a

biological timetable that does not need formal instruction, but rather instruction that is informal. Gough and Jeul (1991) report that a child orally knows all the words they will need to know for the first three years of reading when they enter kindergarten. From here children need to learn the printed format that represents the oral language. According to Firth, reading first occurs within the logographic format. That is to say the child learns that the golden arch logo means "McDonalds" and they therefore, may be able to read the word McDonalds, but it is read as logo and not as a printed word. The child is recognizing the distinguishing features of the word "McDonalds" but does not yet understand the concept of print, only the meaning of the distinguishing features of the print. The second stage in the Firth model is called the alphabetic phase. In this stage the child is beginning to learn the alphabetic code. The child comes to put sounds and letters together. It is the same as stage two in both the Chall and the Developmental Continuum model and is related to the Piagetian model in the same ways as the Chall and the Developmental Continuum model. The third and last phase of the Firth model is the orthographic phase. In this stage the reader is less concerned with phonics, provided that phonics has become an owned skill, and is more concerned with the instant recognition of word parts such as prefixes and suffixes, and intra word recognition of word parts. In this phase the reader is dealing with the irregular word parts that need to be learned in relationship to the word, and not learned through the phonetic process. In Firth's system this is the point in reading development where the reader forgoes dependence on the phonetic system and is able to integrate letter patterns that work as units to make specific sounds and carry specific meanings. This would be the stage that proceeds phonetic spelling.

These three reading models are interesting from the perspective that they all have similar, if not the same, stepwise progression and all describe the same stepwise progression in reading development. What they are describing is a normal developmental reading process. The models are chronicling the interaction between nature and nurture that have come together to produce an immensely complex human behavior called reading.

Reading is both sides of the same nature/nurture coin. Remember, both sides of the language coin stimulate development on the other side; there is reciprocity. But as we know from the many children who have severe difficulties learning to read there is not always reciprocity. There is not always timely nurturing during the developmental windows that Begley (1996) talks about. The kind of environmental exposure and stimulation that does not happen when the cognitive development requires it to happen, precludes the reader from the needed reciprocity between cognitive growth and environmental experiences that provide the language basis for reading. The result of poor nature/nurture reciprocity is reading disabilities, that many times are the direct result of poor language experiences, at a time when the cognitive development required those language experiences to proceed, on course, toward creating the foundation for reading and writing.

The next reading model considered is that of the reading disabled/resistant reader. It is a perspective that is based on reading disorders, as developing from language disorders, which emanate from poor literacy experiences. It is an explanation and a depiction of what happens when the reading stages of Chall, First Steps, and Firth, fail to achieve the necessary nature/nurture reciprocity to integrate one stage with the next. It is less of a model of developmental reading, and more of a model for teaching the reading disordered, based on a developmental language deficiency model (Goldsworthy, 1996). It is a model that assesses the nature of a child's language development, aware of its strengths and weaknesses. The assessment is both dynamic and static, formative and summative. The model is assessment, intervention, and reassessment. It looks at language as the key to reading. In this model, as the language "goes," so "goes" the reading. It is a model that attempts to discern the impact of poor language and literacy experiences on the developing reader, and provide language based interventions.

This model of assessment, intervention, and reassessment is the model or explanation of reading disabilities that makes the most sense to the writer. It concerns itself with the reciprocity between nature and nurture, it concerns itself with language and

literacy, and it concerns itself with the natural products of developmental reading stages that occur within the reader when language and literacy experiences are appropriate to the developmental needs of the reader. It looks at reading disabilities as a function of language deficits that occur as a result of naturally occurring developmental events in the midst of poor environmental language and literacy experiences.

The next model used to gain an understanding of reading is not an instructional/diagnostic model in the sense of the other models briefly discussed above. It is a model for curriculum measurement. The writer's sense is that reading curriculum and evaluation are an instrumental part of reading instruction, and if done properly can lead to instructional interventions that move the reader further downstream toward independent reading.

The model is called Curriculum Based Measurement (CBM) and it was developed in large measure by Mark Shinn (1988) of the University of Oregon. The writer has studied under Dr. Shinn, and therefore, is knowledgeable in the mechanics of the measurement procedure. It is a procedure that measures reading in a dynamic, formative, and scientifically useful way. It is based on the very sound research that states that reading fluency is an excellent measure of reading comprehension ((Deno, Mirkin, & Chiang, 1982; Fuchs, Fuchs, & Maxwell, 1988; Marston & Deno, 1982; Hintz et.al., 1997; Shinn et. al, 1992). The basic fact is that the rate at which one decodes is significantly related to reading comprehension.

The writer conceives this model to be the scientific model of reading. Scientific in the sense that it allows the teacher to measure the effectiveness of any reading intervention. There is little question that the children who do not learn how to read in the nice, neat, and stepwise progression of the Chall or First Steps model, need specialized interventions. The reading interventions need to be quickly and objectively assessed, for the reading disabled/resistant child's time is of essence, and therefore, cannot be wasted on ineffective reading interventions, no matter how well intentioned.

The writer further conceives the CBM as the model of the very competent teacher; the teacher who is skilled in the developmental nature of reading, who understands the why of phonics and their limitations, the why of whole language and its limitations, the absolute necessity of pre literacy experiences to language development and print readiness, the teacher who has amassed sufficient experience, and uses on going anecdotal records to provide significant interventions. It is this teacher who will be able to make the most creative use of CBM. It is this teacher who has the wealth of experience to lay the ground work for what the writer calls intuitive instruction. A teacher who has these kinds of skills can profit the most from the CBM model, as the skill level of the teacher provides the background to use, most effectively, as an experimental reading design. The fluency factor, or the words read per minute, becomes the dependent variable, and the reading intervention or strategy becomes the independent variable. If reading comprehension is a function of fluency rates, than any intervention or independent variable that can increase reading fluency is a worthy intervention.

Once the outcomes of reading instruction have been put into an experimental design model, wherein one can accurately and quickly measure the influence of the instruction on reading comprehension, that is, measure or determine the extent to which the dependent variable (fluency rate) is influenced by the independent variable (teacher intervention), then the maximum benefit can be delivered to the student in terms of maximizing effective instruction. It is the writer's opinion that teachers waste too much student time on reading strategies that are ineffectual because they do not know how to determine the merits of the strategy for the individual student. This is particularly true of the reading disabled/resistant student who has little time to waste and sometimes requires continuous program adjustments which cannot be left to chance.

The next model the writer wishes to review is the Adams (1990) model. It is a theoretical model that provides the practitioner with a means for organizing the nature of reading from a conceptional perspective. Such an organizational understanding of the quasi

neuropsychological constructs of reading provides the reading teacher with an overall functional model of reading.

The Adams' model can best be described as a process model of reading. Adams has conceptualized reading into four interactive and interrelated reciprocal processors. The idea of reciprocity is the essence of her model. In the Adams' model, reciprocity means intra and inter simultaneous interactions between and among four processors. The first two, the orthographic processor and the phonological processor, are input centers that receive input from the environment in terms of print and speech respectively. These two processors are reciprocal with the what Adams calls the meaning processor, where meaning gives and makes meaning from the orthographic and phonological processors. The fourth and last processor is the context processor and it is responsible for making meaning from ongoing contexts.

This model conveys a dynamic neuropsychological process of reading. Unlike the Chall or First Steps models that are developmental in their representation of the reading process, it conceptualizes reading at a macro level of understanding and is focused on the neuropsychological process of reading at a more micro level. However, it too is developmental in nature. It is dynamic in its conceptualization of reading, where the developmental models of Chall and First Steps are more static in their representation of reading. The layer model (Possin, Schwarz, & Stockdale, 1994) of reading is similar to the Adam's model in that both are working at the micro level and both are concerned with interaction and reciprocity of reading constructs. The Possin model has called reading a "messy" process. This depiction speaks to the interactive and overlapping nature of reading development that can be impeded by so many variables, not the least of which are pre literacy experiences. In fact, the new research on brain development that has been augmented by the imaging technology seems to suggest, rather strongly, that brain development is highly dependent on appropriate stimulation (Hancock, 1996). The implication is quite clear: reading disabilities may in part be caused by developmental

windows that were never opened or were permanently closed due to the lack of appropriately stimulation in terms of the myriad of pre literacy experiences that the developing brain requires. On the face, it makes good sense. There are many examples in terms of our physical development wherein atrophy is the result of lack of use. The writer is only suggesting that the reading disabilities may, in part, be the direct result of "brain atrophy" at the hands of no, or limited exercise in terms of pre literacy experiences. This kind of research makes the nature/nurture dichotomy less of a dichotomy and more of different sides of the same coin.

Another reading model is one was that developed by a reading agency in the writer's locality (Possin, Schwarz, & Stockdale, 1994). It looks at reading through the lenses of the learning disabled. It has many features in common with the language based model above, although it is not as sophisticated. It is also an assessment diagnostic model. First it is a diagnostic model. It looks at the learner as having "layers" of interrelated learning problems; each layer having the potential to contribute to the idiosyncratic nature of the learning problem. The assessment process is the cornerstone of this model. Like the preceding model, the assessment is both dynamic and static. However, the emphasis is more on static assessment wherein the language based assessment model above, which depends a great deal on the dynamic assessment, evolves through the instructional process.

The layers model is grounded in the belief that we live in a three-dimensional world. Our initial learning is based on the three-dimensional world that is articulated and mediated by our language developmental experiences. Reading is conceptualized as moving from the three dimensional world to the two dimensional of pictures and print. The learning disabled child is the child who does not automatically translate the three dimensional to the two dimensional through the bridging elements of imagery and language. The model considers imagery and language to mediate learning; each dependent on the other.

The model conceives of learning as occurring through integrated, reciprocal layers by which the three dimensional is translated into the two dimensional, through the layers of attention, language (phonology, syntax, and semantics), visual-spatial, motor-spatial, and dyslexias. The model looks to evaluate one layer of learning at a time with standardized assessment tools much the same way the language based model conducts its static or summative assessment. The model is similar to the Adams model in that it is a reciprocal model, but unlike the Adams model, the layers model is a model of reading language disabilities, whereas the Adams model is a model representing the normal and reciprocal development of language and its relationship to print. They are very similar in their understanding of how timely and appropriate language experiences begets reading, and furthermore, how when these experiences are interrupted by nature or nurture the reading disabled/resistant reader is produced.

The model is not only a conceptual model for the reading disabled but it is an assessment and intervention model as well. It has developed many creative interventions depending on the assessment results. For example, if the results of the assessment suggested that the child had syntactical difficulties the model would suggest that the child use "sentence builders." These are different geometrically shaped pieces of plastic, each one representing a different part of speech such as a noun, verb, adjective, or an article. The children therefore have a visual model of language and its structure that can be physically manipulated to build sentences. The sentence builders assist the student with syntax by providing an intermediary step between the two dimensional (language structure) and the three dimensional (geometric plastic pieces that represent the language structure). The layers model of disabilities is founded in language but is vigilant in its analysis and impact of the mediating and reciprocal qualities of the attentional, motor-spatial, and visual-spatial layers of learning disabilities.

There are instruction implications related to all of the reviewed models, and therefore, some understanding of their nature helps the practitioner makes more sense of reading strategies and interventions.

Description of Selected Solutions

The solutions for this practicum focused on a language based diagnostic approach to reading remediation. There were three basic approaches to the problem. The first prong was diagnostic in nature. The second was a continuous dynamic measurement of the program interventions that were the product of the diagnostic assessment. The measurement prong was also responsible for dynamic diagnosis via continuous intervention assessment. The last prong was a home based reading component. The home component also featured a continuous formative measurement and evaluation.

The writer has discussed the nature/nurture theme throughout this document. The discussion has theoretical implications. It is interesting, thought provoking, and provides a framework to conceptualize the nature of reading disabilities. The writer has used the disabled/resistant concept as a substitute for the nature/nurture relationship. However, as the literature is beginning to document (Caine & Caine, 1994; Kuhl, 1996; Sylwester, 1995; Suplee, 1998) the two are reciprocal. The nature can influence the reader's development by virtue of its genetic contribution, and the nurture can influence reading development by its ability to restructure natural/genetic neuro pathways through appropriate stimulation, or pre literacy experiences, as the underlying brain structures come on line developmentally. Nature/nurture reciprocity impact each other and are different sides of the same coin. (Diamond & Hopson, 1998; Kotulak, 1996).

For some, the idea that the nature side can be changed by the nurture side is a new idea. It underscores the immense power of the pre literacy experiences as the breeding ground for good readers. This practicum is about catching the nature side up by augmenting the nurture side. It is the belief of the writer that most of the children in his work setting, that have been selected for this practicum, have had poor pre literacy

experiences. Most, if not all, were unprepared for the upstream approach that is prevalent in all of public education's kindergarten and first grade reading curricula. However, these children are missing the pre literacy experiences that these curricula are dependent upon. The systems of public education: regular classroom, Chapter, or special education are not designed in terms of format or curricula to expose these reading disabled/resistant children to pre literacy experiences. Furthermore, the question remains: if they were to be exposed to diagnostically indicated experiences, would that be sufficient to catch them up to their peers? As stated earlier (Hancock, 1996) suggests that windows of requisite reading development are closed after a specified period of time.

The writer does not know just how tightly those windows are closed. However, the practicum was an attempt to pry open the windows through insightful dynamic diagnostic language based assessments; exposure by immersion in pre literacy and literacy experiences as indicated by the diagnostic considerations, and continuous measure of reading fluency to assess the nature of the interventions. The students were to be immersed in reading and writing activities both at home and at school. However, the reading and writing activities were structured according to their needs and interests as determined by assessment and measurement.

That practicum students received, in terms of instructional interventions, whatever language assessments indicated that they lack and were necessary to support the reading process. The assessment piece was twofold. It was static/quantitative and it was dynamic. The static portion was assessment in terms of traditional assessment instruments such as: Listening Comprehension subtest (Woodcock, 1991); Receptive One Word Picture Vocabulary Test-Revised (Gardner, 1991); Clinical Evaluation of Language Fundamentals-3 (Semel, Wiig, Secord, 1995); Narrative Analysis: Informal (McCabe & Rollins, 1994); Informal Battery (Swank, 1993; Swank & Catts, 1994); Test of Early Reading Ability-2 (Reid, Hresko & Hammill, 1991); Test of Written Language-3 (Hammill & Larson, 1994) and other such assessment instruments. These devices were used to gain perspective on the

child's developmental language/reading skills. The quantitative portion of the assessment looked at how a child was functioning in the reading and language world by measuring products of their oral and written language. The assessment model of Vellutino (1993) was used in part for this purpose. This model assesses the skills or competencies that have face value rather than the construct validly of some neuropsychological tests that reflect generalizations such as the child "has difficulty using abstract language." This type of a statement would be common to information obtained with the Wechsler Intelligence Scale for Children (WISC lll, 1991), using the Similarities subtest. While the statement may be valid, it does not provide much information toward meaningful reading interventions.

The Vellutino assessment model provides information that has been identified by Adams (1990) and others as necessary to the development of reading. The following represents Vellutino's six areas of reading subskills that will be assessed as part of this practicum. 1. Facility in word identification; 2. Facility in phonetic analysis ; 3. Reading and language comprehension; 4. Linguistic knowledge and abilities as in vocabulary, metalinguistic awareness (syllable and phonemic awareness), ability to judge the grammaticality of phases and sentences, facility with inflectional morphemes (prefixes and suffixes), facility derivational morphemes (prefixes and sentences), comprehension of syntax, pragmatic knowledge such as conventions for text processing, name encoding and name retrieval; 5. Orthographic knowledge or recognition of redundant spelling patterns (e.g., tion, ing, ap, ave, etc.); 6. General word knowledge and domain of specific knowledge. The writer believes this model to be representative of the skills and knowledge needed in the developmental reading process. The writer used many different assessment tools to access this static data and to assess the reader's readiness to read in terms of the child's letter recognition, understanding of print i.e., what it represents, understanding of printed words as the symbolic representative of oral language, understanding of awareness of words in terms of their parts i.e., syllables and phonemes, and the child's knowledge of letters in terms of their names and sounds.

Also quantitative (static) analysis of some of the students' abilities was undertaken. (Aaron & Joshi, 1992). At this level of assessment the writer looked at reading comprehension, listening comprehension, vocabulary in terms of antonyms, synonyms, and analogies, and decoding as assessed by using words that occur infrequently. Reading speed was assessed by reading highly familiar words and content words from a typed list. Context dependency was measured by reading a grade level passage in context and then a day later reading same words, out of context, from a list. The number of errors was assessed and compared to previously read passage yielding a context dependency score. Also measured was the student's ability to recognize reading errors as a measure of metacognition in terms of being aware of self-errors. Aaron and Joshi have found large discrepancies between the number of errors actually made and the number of errors thought to be made by the reader in terms of reading comprehension. If the student has poor to no ability determining when an error is made, there is no chance to self-correct. The student then has little ability to monitor his/her own comprehension, which certainly would make reading very difficult. To make this determination a student is asked to speculate as to the number of errors made in a reading comprehension test and then this number is compared to the actual number missed. Spelling was also assessed, as the manner in which a student encodes is as important as the manner in which they decode. The relationship between input and output can provide insights into the child's level of understanding of the reading and writing process. Written syntax was also assessed looking for sameness and difference in oral and written syntax in an effort to gain insights into the syntactical processing from oral to written language.

The second part of the evaluation is the dynamic section which was both initial, in conjunction with the static assessment, and on going and dynamic. It was also continuous and monitored by CBM, once the individual programs were developed.

Judy Schwarz, co-founder of Another Door to Learning, a local reading agency, once told the writer that reading is a messy process. The intent was to convey the

understanding that reading does not happen in a stepwise discretely developmental progression. Rather the progression, while basically developmental and stepwise, is messy, inconsistent, and overlapping. This is the way it was meant to be, as this is the way most new learning occurs. It is not an on/off switch, it is a rheostat switch that needs to go backward as much as forward in order to obtain the proper illumination. In short, it is dynamic. Goldsworthy (1996) believes that it is not enough to know the static representation of the skills a student has, one also needs to know when and how a student is transitioning from one stage or skill to the next and moving down the path toward independent reading.

Dynamic assessment is knowing how the student is processing through new learning and with what kind of supports. Dynamic assessment is knowing how a child problem-solves. It might look like test-teach-retest model or it might look like taking a standardized assessment instrument and testing its limits, that is, stepping outside of the standardized administration and assisting in the child's problem-solving a particular test question that she/he is struggling with, in an effort to assess the nature of the problem-solving process. It might be as simple as listening to a child read and then asking how the child was problem-solving such as "what were you thinking when you came to that word and could not read it?"

Dynamic assessment is a sophisticated process as it provides a theater from which the examiner can watch, from the student's perspective, the idiosyncratic problem-solving process. The process is on going, and its main function is to direct instructional interventions that are meaningful to the learner. A simple but effective dynamic assessment technique is to just listen to the texture of the student's reading. How does the child decode, how does the child deal with punctuation, or syntax, or the context as a producer of meaning? The more skilled and knowledgeable the examiner is, the more meaningful the instructional interventions will be. There are many different approaches to dynamic assessment (Brown & Campione, 1994; Nelson, 1994; and Wallach & Butler, 1994) but

the essence of the assessment is to know what the student knows and how she/he "knows" it, and further, how to access and mediate that process on a continuous basis. CBM, as a measurement technology, can be of insightful value to the dynamic assessment. While it is an end product measure of a child's problem-solving of a highly complex metacognitive process, it is an excellent measure of child-centered idiosyncratic interventions that have been developed by insightful dynamic assessment.

It is the writer's belief that the careful development of a child's language and reading profile, based on the combination of static, quantitative, and dynamic assessment, with the assistance of the high technology of CBM, can maximize the reading potential of the reading disabled/resistant student.

In addition to profiling and measuring the student, as a means of understanding the distinctiveness of the individual reader, the writer also enlisted the vital assistance that can be provided by the home environment to play a major role in stimulating the disabled/resistant reader. In the beginning, the home is the major contributor to the language and literacy experiences that a child needs to be prepared for the reading experience. It is the writer's belief that most, if not all of the practicum students, did not have optimal language and literacy experiences in the home. Obviously these experiences cannot be duplicated, as the optimum developmental stages have come and gone. However, it is the home that continues to be a potential source of great learning. It is the writer's belief that the home is an essential, if not the necessary ingredient for the practicum child's reading development and success.

Therefore, a major piece of this practicum was the involvement of the home in the child's reading program. This required a shift in the thinking of the more traditional school reading programs. The parents of the practicum students were asked to participate in the reading programs of their children. The practicum program offered a training and sharing time for parents, at times that were convenient for the parents i.e., nights and/or weekends. This time was to be used to discuss the nature of reading, how it develops and what it

needs to be nourished. The children's school program was also discussed. It was the plan of the practicum to have the home supplement and reinforce the school program. It was important for the parents to know what the reading program is and why. Home reading fluency measurement, using the technology of CBM, were to be an integral part of the home program also.

The writer wanted to create a home reading environment that was as full of excitement as possible. It was hoped that the excitement would generate from new beginnings. It was the hope of the writer that by providing an integral and pivotal role for that the home, commensurate with new and wondrous understandings regarding language and reading, the home would be transformed into a dynamic place for learning. It was and is the writer's belief that most parents want their children to be successful readers, they just don't know how it can be accomplished. Furthermore, if the parents can be shown how very important they are to the process, and how and why they are important, and what they can do and how it can be measured, the home will become empowered to help their children. Empowerment and self-respect are truly powerful motivational tools. The empowerment was to be generated by new understandings, meaningful involvement with their children, meaningful interaction with their school, and an objective means to measure the progress of their children toward being independent readers. The self-respect was to come in the form of their children's reading growth and knowing that they played a major role in that process. All of this was to be chronicled by a semi-weekly newsletter designed and authored by the children, with assistance from both the home and the school. The newsletter was to be the symbolic barometer of the program's success.

A major piece of the school reading program was to be the manner in which the reading program is set up. The reading program was to be interest driven, whereby the students chose their own reading materials i.e., books, magazines, newspapers, and catalogs. The writer held informal conversations or interviews with the students to ascertain what those interests were and provided books to facilitate reading in those areas.

A minimum of three books were to be chosen for use in the resource room. Any book was permissible and could come from the same subject area. Students were to replace books as often as needed, depending on interest and length e.g., some students read chapter books. Their books were to be put in individual bags for easy access and the only criterion was that they have one challenging book e.g., one in which not all words are known, one easy book e.g., used mainly for practicing expressive reading, and one fun book e.g., may just enjoy the pictures and not be able to read. A library format was to be set up and books were to be grouped in containers according to subject matter. Students were to be encouraged to check books out for home use also. The expectation was that students read each and every day. The teacher's role would be one of a facilitator, whereby he supports and promotes reading literacy experiences.

At the beginning of each reading block students would come together as a group. This was to be the instructional time and lessons would include how to have a conversation about a book i.e. relevancy to life experiences, what kinds of strategies to use when encountering an unfamiliar word, or what to do when they realized what they just read did not make sense, to name a few. Partner reading can be ideal for supporting each other's reading and students would role play what partner reading looks like i.e., wait time before giving your partner a word, taking turns, etc. After finishing their books students would write a short critique in their reading logs/journals about their impressions and whether or not they would recommend the book to another student. Some of the above did not occur as a part of the practicum due to the unexpected changes in the ages of the practicum students from primary to secondary.

During the reading sessions the writer observed what was taking place and recorded reading behaviors (anecdotally). These observations are invaluable toward the end of providing a functional assessment of the child and were the impetus for future lessons. These anecdotal records tell a teacher where the student is at in terms of the degree of reading readiness (developmentally) and allow student growth to begin from that point,

continuing downstream at a rate commensurate with the child's ability. Many of these "resistant" readers have been high jacked when it comes to the normal journey from home to school. They have been "literacy deprived" and are starting at the infancy stage of reading, upstream from their peers.

This kind of program was within the context of the derived assessment data, which drove many of the tutorial sessions. The sessions featured instruction and practice in those areas, determined by the assessments. The instruction was necessarily highly individual and to some extent experimental. The data, as to the effectiveness of this kind of assessment driven approach, are yet to be derived however, it is in part the focus of this practicum to develop those data.

Report of Action Taken

Implementation of the practicum deviated from the proposal in one rather substantial manner. The writer had anticipated using an elementary age population. However, just prior to the beginning of the implementation, the writer was transferred from his elementary school affiliation to a full time position in a junior high school, and therefore, some revisions were necessary. The kinds of reading problems that are presented by elementary age students are developmentally different from junior high school students. Furthermore, there are different dynamics that impact the nature of the instruction and the nature of learning with adolescent students, which is made even more different within the context of the junior high school program.

As young adults junior high school students are attempting to distance themselves from mainstream thinking and behavior. They are in the mist of developing their own identity and they desperately need to be different from their parents, and in large measure from their teachers. Added to this very natural developmental dynamic there is what the writer calls the concept of dynamic failure. This refers to the on going, ever developing perception of self as a student. The six students in this practicum were, by any *academic* measure failures, and they had internalized this perception. Their classroom behavior was

indicative of this perceived failure as well. They could be defiant and disruptive in the classroom environment and presented with many organizational problems. They were not motivated or predisposed to academic learning. They were a very challenging group of young adult learners.

These students have been inadvertently cast aside by our public education system. They are so disparate from the mainstream, or even special education, as to be extremely difficult to provide appropriate educational experiences. These students did not get to this educational wasteland by themselves, rather they have been failed by a well-meaning educational system with its ineffective safeguards that have been designed with the best of intentions. These are the very same students that the writer had designed the practicum to reach however, not in the secondary educational years but rather in the elementary years. The kinds of educational experiences these students have had over the past 10 years has quite possibly irrevocably changed the course of their future academic learning, no....their lives, and has made any kind of educational intervention a very difficult proposition.

A major difference between this population vis-à-vis the elementary population is their level of desire. It has been well documented in the literature (Adams, 1990) that if the kinds of reading problems this population of children present with are not dealt with early, and dealt with aggressively and knowledgeably, then their reading prognosis with each successive year becomes significantly worst. It was this desire of the younger children and their parents that the home reading portion of the practicum program had hoped to capitalize on. Given the reading skills of this population, be they elementary or secondary, a home reading program was a very necessary part of the remediation program.

It has been a personal observation of the writer that as these children progress through the grades their parents become progressively less involved in their children's education. This seems perfectly normal in the sense that as the years pass the parents have learned, through experience, that more involvement in their children's reading development yields no improved performance, often adding insult to injury; the more they try to become

involved the more their children resist their involvement. With this population of students the parents have been conditioned not to be involved.

Therefore, a major prong of this practicum, that of the parent program, was compromised. It was not lost, but it did not provide the very necessary kind of support the writer was expecting to occur and has seen occur with similar groups of elementary age students. Again, so appropriately pointed out by Adams (1990), and many other contributors to the literature, when children with reading difficulties are not reading, or receiving appropriate remediation by the third grade, their probability of developing into good readers is significantly compromised. Consequently, the task of making meaningful inroads with this age group of adolescent resistant readers was exceeding formidable. Some may even say, that given normal circumstances, it is not possible. The writer agrees with this sentiment, as it is realistic. It is realistic because public education, special education or not, is simply not prepared to teach these children to read if good basic reading skills have not been achieved in the primary grades. The junior high system is not prepared to teach reading to this population of students as it has no understanding of what it takes; what kinds of programs, how much time must be devoted, or what kinds of supports must be provided in the regular program. Mainly, the junior high or senior high system is not designed to teach reading. If a student comes into the system unprepared to learn in the content areas because they cannot read, there is simply no real way that they are ever going to catch up. Systemically they are ill-fitted and displaced.

If a home reading program is important at the primary level, it is exponentially more important at the secondary level. Furthermore, due to the manner in which parents have come to be conditioned by the dynamic that is created by their children's poor ability to read, and the school's ill preparedness to cope with the reading deficits, particularly at the secondary level, and the developmental dynamic that is part and parcel of the young adolescent desire to separate from parental guidance and define their sense of self, it is

extremely difficult to develop a meaningful home reading program for this population of students.

Another problem that became immediately obvious when developing individual approaches for these students' reading problems was the inability to utilize many of the standardized language assessment tools. Many of these assessment tools are normed on the younger elementary school students, and therefore, are not applicable for use with adolescent populations. A prime example of this difficulty can be seen in the assessment of the students' phonological awareness and skills. As a younger student the level of functioning can be assessed directly with the Modified Rosner (1979). Yet this assessment tool losses its ability to discriminate this very important language/reading function as the child moves to and through eight years of age. However, these skills can be assessed indirectly through inference via encoding, decoding, spelling i.e., those reading skills that can define the reader's ability to sound out words and read with comprehension.

As the resistant reader becomes older, the diagnostician must become more sophisticated because the assessment tools become less discriminating and definitive. However, the writer was able to assess developmental language/reading skills of the students within the context of the assessment model of Vellutino (1993), as well as with norm referenced tests that were applicable e.g., the WISC lll, selected subtest from the WJ/R, and various expressive and receptive language evaluation tools.

The assessment setback, brought about by the age of practicum population was minimized by the extensive use of CBM. From the writer's perspective it is the assessment tool of choice for those who are not sophisticated in the assessment of language development. CBM is simple, as it allows the teacher to evaluate the day to day progress of any reading treatment program and, based on the sophistication of the teacher, can direct the teacher toward program evaluation and intervention. It can be very dynamic as it measures reading as it occurs, particularly when the teacher is listening to the reader read. It is a direct measure of reading. It allows the teacher to make and test hypotheses as to the

nature of student's reading errors. The knowledgeable teacher can look at syntax; the nature of the decoding errors (consistent errors in grapheme/phoneme correspondence; phonemic segmentation; difficulties with beginning/medial/final sounds; difficulties in segmenting blends but not single consonants); patterns of self-correction strategies; difficulties in reading regular or irregular words; difficulties with contractions; omissions and substitutions and the like. The reader is directed to Howell, Fox, and Morehead (1993) for a detailed discussion on error analysis within the context of intervention planning and CBM.

Another important aspect of dynamic measurement within the context of CBM is its effect on reading scores as a by-product of charting the reading data and providing the results to the reader. In a meta-analysis study competed by Fuchs and Fuchs (1986), the effects of systematic progress evaluation in the area of reading i.e., correct words read per minute counted and charted overtime on the way toward ambitious reading goals, and using data based decision making, led to an increase in size effect of + 0.70 or about 23.5 percent. These data suggest that when students are made aware of their reading scores and reading goals in a systematic measurement system that depicts subtle but real differences, the readers are motivated to achieve at ever higher levels of performance.

There is always a silver lining if one is of the nature to find it. While the age of the practicum population changed, the practicum was designed to use various assessment tools. Therefore, the tools were in readiness and the tone of the measurement necessarily became more dynamic and less static in its evaluation of language and reading skills.

Each day throughout the implementation phase the writer worked with a different group of two to three practicum students (six altogether) for 50 minutes in the writer's office. These sessions always included individual reading, sometimes individual counseling around reading and sometimes life issues, and always discussions around reading and writing issues. The relationship between reading and writing was discussed at every opportunity, as well as individual reading styles in terms of strengths and

weaknesses. Reading was treated as the most important of human functions, and the emphasis was on time. Time to obtain and develop this most important function was running out for these students, and therefore, our work was serious and not to be taken lightly. CBM data were taken one time per week on each student i.e., counting the number of correct words read per minute.

The practicum called for the reading material to be interest driven. The writer believes this to be a very important part of any good reading program and has seen such interest in reading material serve as a spring board to meaningful instruction at the elementary level. However, the writer's group of readers were at the junior high level, and while they had a variety of individual interests, they all wanted to read out of the same book. It did not matter that they had difficulties with the text, it only mattered that they read from the same book; an aspect of the adolescent developmental dynamic! Several attempts were made to dissuade and to assuage them, but in the end they needed to read out of the same book. They needed to read out of the same book because developmentally such behavior is consistent with their age and their disability. It is important to these students that they not be perceived as different. There was little question that they knew they were different, in that they were all special education students and none were successful readers. This aspect of their functioning was obvious and did not need to be stated. However, within this group of failed students, this subgroup of special education students had their own code; while they were different from the regular education students, they did not want to be perceived as different from each other. It appeared to the writer that this desire not to be perceived as different prevented them from reading books that were more consistent with their skill level. Therefore, the book that was selected for reading was Bridge to Terebithia (Paterson, 1972). This decision was based less on student interest and developmental need and more on the emotional needs of this group of readers. This is not the text nor the manner in which the writer had intended for the students to select reading

material. It was however a workable compromise that was necessary to work with this group of readers.

Chapter V: Results

Results

The problem to be solved in this practicum was that of special education junior high school resource room students who had average measured intellectual ability, less than average expressive and/or receptive language scores on norm referenced language assessment instruments, and who have reading deficits at or below the 10 percentile on curriculum based reading measures and on the Woodcock/Johnson Psycho-Educational Battery-Revised (W/J-R). Additionally these students have been exposed to all manner of reading programs and interventions the writer's school has to offer.

The solutions for this practicum were centered around a language based diagnostic approach to reading remediation. There were three basic approaches to the problem. The first prong was diagnostic in nature: looking at language deficits through the windows of normed referenced assessment tools and using the data toward the development of reading programs/interventions. The second was a continuous dynamic measurement of the reading program interventions that were the product of the diagnostic language assessment. This measurement prong was also responsible for dynamic diagnosis via continuous intervention assessment based on the program data feedback. The last prong was a home based reading component with the same kind of dynamic, on-going curriculum based measurement system. Unfortunately this most instrumental prong was the weakest part of the program, as there were just too many family dynamics that were not manageable by the writer.

The goal of the practicum was for the selected practicum students to improve their reading fluency rates to a level that permitted them to learn through reading and language related activities in their regular classroom with normal teacher assistance and curricular adaptations where necessary. There were a total of seven expected outcomes that were sought as evidence that the problem was solved.

1. The first expected outcome was that the six children's regular education teachers would rate these children as being able to learn utilizing present reading, within the regular classroom and with the same intermittent teacher assistance.

This outcome was not met.

This outcome was met for one of the six students. One of the students was rated as able to function in the regular classroom within the context of their reading/language skills given normal teacher assistance. The standard for achievement was a statistical significance between pre and post teacher rating scales at the .05 level. However, the group data did not met the criterion for success. The data demonstrated that there was no difference between pre and post ratings. A t-test for correlated means was used to compared the pre and post rating scales of the student's teachers. The data were derived by assigning numerical values to the teacher ratings e.g., the value of 5 for strongly agree and the value of 1 for strongly disagree. Simple averages were then derived and mean pre and post ratings were then compared. The average score on the pre was 2.01 and on the post it was 2.06.

2. The second expected outcome was that the six students' parents/caregivers would rate them as better readers at the conclusion of the practicum intervention when compared to pre intervention ratings.

This outcome was not met.

The data needed to rate this outcome was incomplete. Of the six students only three of the students' parent returned both pre and post rating forms, and of the three returned

rating scales none were found to be significantly different from the pre rating scales. The data were derived by the same method as in outcome number one.

3. The third expected outcome was that the six practicum students would be able to say and write their alphabet and say their corresponding sounds at rates faster than prior to the practicum intervention.

This outcome was not met.

This was an outcome that was written specifically for the younger elementary special education students but was found to be inappropriate for junior high school students. There have been numerous studies demonstrating that the best predictor of beginning reading achievement is a child's knowledge of letters; Bond and Dyskstra (1967); Chall (1967). This is not to say that letter knowledge, in and of itself is predictive of early reading achievement, only that it is associated with it. It should also be stated that it is not only accuracy with which children know their letters, it is the speed and fluency with which they know their letters that is predicative. At any rate, such a measure ceases to be predictive as the age of the child increases. It simply loses its ability to discriminate by approximately the age of 13 and therefore, is of little value as a predictor. The youngest of the practicum students was 14 and therefore, this goal was determined to be irrelevant for this population of students.

4. The fourth expected outcome was an increase in WJ/R standard scores in the following selected subtests: Word Attack, Letter-Word Identification, Vocabulary, Passage Comprehension, Writing Samples, and Basic Reading.

This outcome was not met.

The data from this outcome was analyzed by comparing pre/post (WJ/R forms A and B) derived mean standard scores using a t-test for correlated means. The .05 level of significance was achieved that is, there was no difference found between the pre and post standard score means on any the WJ/R measures. It was thought that the WJ/R scores

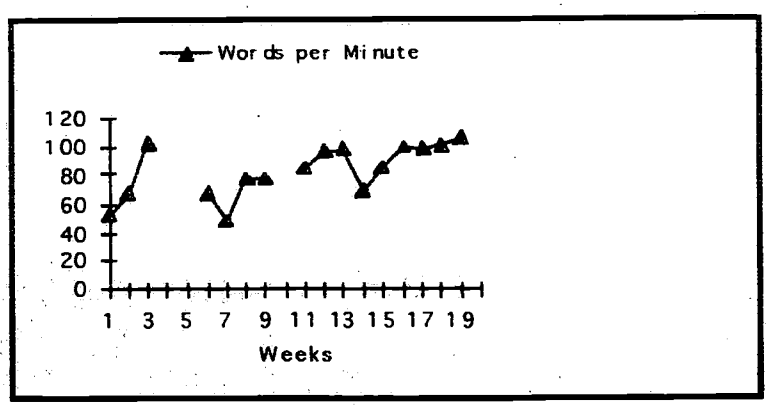
were just too insensitive to the kinds of changes that may occur over a 16 week intervention period, and therefore, may not of been an appropriate measure in this format.

5. The fifth expected outcome was that the students' post practicum intervention reading fluency rates, in terms of correct words read per minute would increase from pre practicum levels.

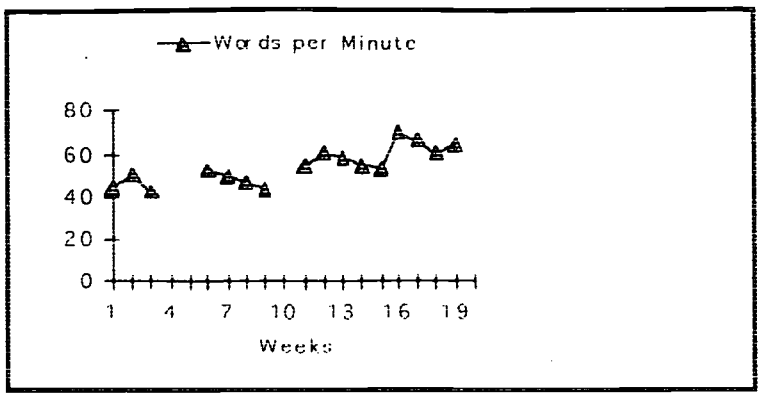
This outcome was met.

Below are figures 1.1 through 1.6. Each graph represents the individual data for each practicum student in terms of correct words read per minute as sampled each week throughout the intervention phase of the practicum. The reader will notice that there are two places in each graph where there is a break in the data. The first two week break represents the Fall-Winter vacation, while the second, one week break, represents Winter-Spring vacation.

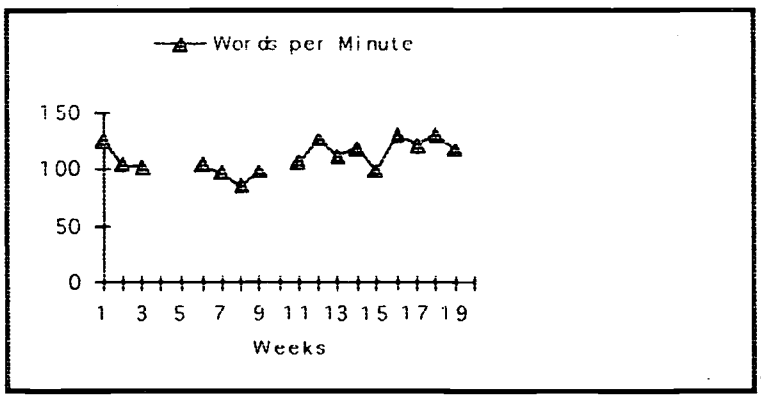
Figures 1.1 Through 1.6



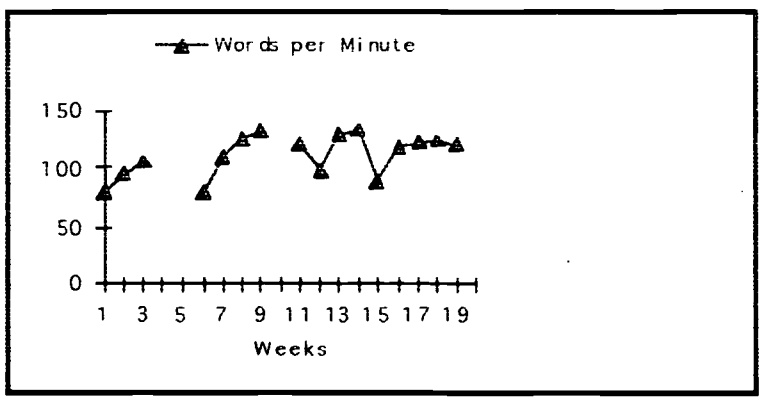
1.1


Words per Minute
80
60
40
20
0
1 4 7 10 13 16 19
Weeks

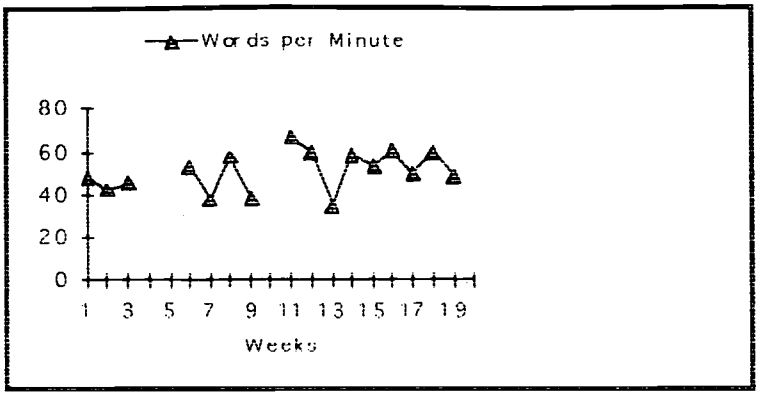
1.2


Words per Minute
150
100
50
0
1 3 5 7 9 11 13 15 17 19
Weeks

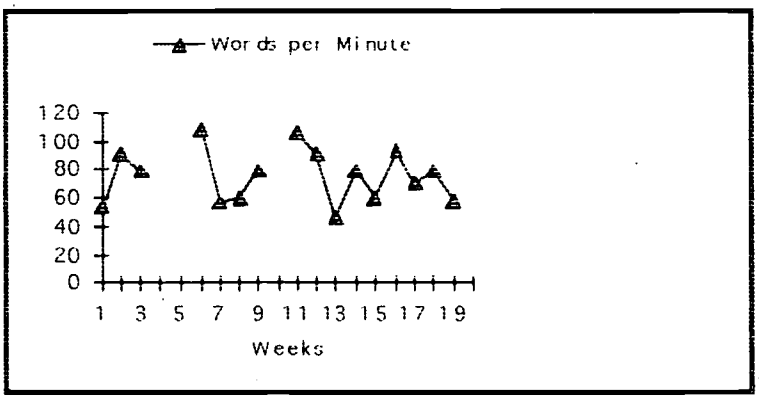
1.3


Words per Minute
150
100
50
0
1 3 5 7 9 11 13 15 17 19
Weeks

1.4



1.5



1.6

These data reflect the initial group mean rate of correct words read per minute at 399, or an average of 66.5 WPM for individual students. The ending group mean correct words read per minute was 559 or an average of 93.1 for individual students. This represents a net group gain of 160 words read per minute; such a difference met the statistical criterion for this outcome. While this rate is relatively small, i.e., an average of 26.6 words per student over 16 weeks of actual intervention, or 1.6 words per week average gain per student, it does represent a net gain. The average increase in number of words read correctly per minute for regular education elementary age students is about 1.9 per week of instruction, plus or minus .5, depending on the study quoted. There does not appear to be data available for reading disabled junior high school students however, the writer speculates that a 1.6 word increase per week would be within an average range of performance within a context of meaningful reading instruction.

The 1.6 weekly reading gain would appear to be the most important outcome of the practicum. It validates the sensitivity of CBM as powerful dependent measure of reading interventions and it furthermore demonstrates, in the writer's opinion, the viability of a language based approach to reading instruction. Additionally it points up the rather severe limitations of norm referenced instruments for the purpose of evaluating student reading progress and reading program evaluation; a purpose for which they were not specifically designed but for which they are unfortunately used all too often, including this practicum.

6. The sixth expected outcome was that the practicum students' reading fluency rates would increase at a rate that was faster than their classmates for the same time period of the practicum.

This outcome was met.

Six 9th grade regular education students were randomly selected and one minute reading samples were obtained both pre and post of the 16 week practicum intervention. The pre words read correctly in one minute averaged 155 in the pre practicum and 153 post practicum; there was no difference. As can be seen from the fifth outcome, the practicum students' rate of improvement, in terms of their mean reading rate, was significantly greater than the regular education students. Here again, in the writer's opinion, this outcome is indicative of the viability of the practicum as a whole. It would not be expected that randomly selected regular education students would demonstrate an increase in their fluency rates over a 16 weeks of normal curricular instruction when compared to the practicum students who have reading been at the 10th percentile or lower most of their academic careers. In other words, the practicum students had considerable room for improvement, whereas the regular education students, who have experienced normal reading development and achievement, would have less room for improvement within the 16 week period. Such an outcome is emblematic of the practicum because it sets up a comparison that demonstrates a real comparative rate of improvement.

7. The seventh expected outcome was that teachers would perceive these children as less at-risk for school failure.

This outcome was not met.

Of the six practicum students one student was rated by both their regular education and special education teachers as less at risk for school failure. Here again there was virtually no difference between the pre/post teacher rating scales in terms of percent of difference. At best, this kind of measure is intuitive even though it has all the trappings of science. While the scales have been designed for objective data collection, the data are based on teacher perception, and teacher perception is based on teacher "feelings". If there were subtle positive student changes, such changes may take more than 16 weeks to register on the consciousness of the perceiver.

While only two of the seven outcomes were met, the writer believes the data indicates that a language based assessment and remedial model, with CBM as a weekly evaluation tool, has been demonstrated to be a powerful reading intervention for the resistant reader. Given the nature of the junior high student resistant reader, demonstrating consistent improvement requires a very precise measurement tool. It is the writer's opinion that rating scales and normed referenced derived standard scores are not sensitive enough to demonstrate changes over a 16 week period when the average improvement is 1.6 words read correctly per week.

Discussion

As stated in the Relationship of the Problem to the Literature section of this report, reading is a very misunderstood and highly complex neurological process. Furthermore, most of our relatively highly trained special education teachers, are by most measures, not well prepared to teach reading to the reading resistant student. In the Problem Documentation section of this report the point was made that, at the junior high level, the reading resistant student has had six to nine years of reading failure that has generalized to all academic areas and, as was well documented in this practicum, has generalized to the

belief systems of their parents who believe their student cannot learn well. This is a very dismal and dangerous state of belief. At this level the problem becomes almost insurmountable given the nature of the junior high curricula and the interventions that are in place to teach these resistant readers; the strategies are way too little way too late. However, the problem is immensely worse than just the "too little too late" adage, in that the dynamics of the system and its curricular response to these resistant readers is analogous to trying to hit a 90 mph fastball with a toothpick. Furthermore, the problem is compounded in that there is no awareness that the toothpick has no chance of ever hitting the ball!

There are many reasons that have been documented in this report as causes for reading failure. However, two issues that were mentioned as causes were carefully dealt with in this practicum. The first was the emotional piece that surrounds learning, and the second was the meaninglessness of most reading interventions. These are two extremely difficult and eminently necessary pieces, though not sufficient enough to solve the problem of the resistant reader. The emotional piece is an utter necessity to all learning. It is absolutely axiomatic to say that no learning will occur when the emotional state of the learner is not relaxed and receptive. As stated earlier, the child who is learning, is the child who has his/her needs for creativity, imagination, excitement, and learning style simultaneously stimulated. When these kinds of events are occurring in the learning environment, the proper emotional learning state of mind is present for the learner as well. The learning is not "downshifted" emotionally into mid-brain emotional chaos where learning is precluded.

This issue of emotionally was particularly relevant for the practicum population. Many students have spent their entire academic life marred by academic failure. They have been sytemically and systematically conditioned to be emotionally unprepared to learn. All one has to do is observe these students in the learning environment, be it regular or special education. Sometimes it appears that their main function ostensibly is the disruption of the

learning environment. However, upon a closer and intimate inspection it can be seen that these students do not have the resolute intention of disrupting the learning environment, they are simply doing what they have been conditioned to do as emotionally bankrupt learners. They are coping with a lifetime of academic failure with all of its classroom trappings i.e., stress, threat, boredom, the need to self-protect, the need for self-respect, and the very real need to make meaning from what is, and has been, meaningless to them.

The antidote to the emotionality piece is the second cause identified; meaningfulness. This is a seemingly easy to be easy to understand, but it is not. The wrapper on the concept must bring meaning and relevancy to the learner. The brain seeks to make meaningful connections, it is instinctive (Caine & Caine, 1994; Kotulak, 1996; Sylvester, 1995). As one might imagine, providing a learning environment that can in turn alleviate the negative conditioning the practicum students have had, to the extent that reading instruction is once again meaningful, is to say, at the very least, very, very difficult. It can not be done with curricular interventions alone however, the curriculum is obviously extremely important. But more important is the management of these students whom, at the very hint of the expectation that they are expected to learn, mentally transition into to a well rehearsed, well conditioned, unconscious externalized disruptive state, or an unconscious internalized state of shutdown. The resistant reader has become the recalcitrant learner with years of experience to hone their disruptive responses to the expectation that they should be to learning.

Some of the disruptive behaviors were very difficult to manage. On occasion the students would come to my office late and disrupt any semblance of learning that may have been occurring. Other times they would be yawning and inattentive, still other times they would misread purposefully to disrupt, or they would argue over the meaning of the text. Three of the six students were severely reading handicapped, reading at the second and third grade level. One management intervention consisted of running the instructional sessions with two to three students only and, making sure that there was always a least one

good (relatively speaking) reader in the group. Sometimes this was very difficult to do due to the high rate of absenteeism consistent with this population of students. Three of the six students were consistently absent. This was a huge problem for which the writer was not prepared and had no ready intervention. However, given the great lack of academic success these students have had, the writer was naive not to have anticipated such a situation.

Yet another problem the writer had not anticipated was drug use by two of the students. Both of these students were evaluated by an outside agency for suspected drug use during the period of the practicum. However, with one of these students, the extreme variable in the fluency rates should have alerted the writer to consider use of illicit drugs (see figure 1.6).

Teaching reading to the resistant reader at the junior high level is a very formidable task. There are so many variables that legislate against program success. The largest of which is the resistant readers legacy of school failure. The task of teaching the resistant reader in the early primary years is a difficult task. However, at the primary level the mitigating factors are less entrenched, and the knowledge and direction from the literature is more insightful and functional.

The thesis of this practicum has been reading instruction and reading achievement through the understanding of language deficits and their import and impact on the transfer of oral language to the language of print. This process is much better documented and understood in the literature at the point where it is initially taught i.e., beginning reading. At the beginning it is much easier to understand the relationship between oral language development and its relationship to printed language development. It is at this point that the language deficits are more vulnerable to detection and intervention as language is still emerging and developing. It is at this stage of the language developmental process when language difficulties can be most efficiently unmasked, documented, and remediated.

As the children develop so does their language. As noted earlier in the Relationship of the Problem to the Literature section, there is emerging research in the literature that documents developmental language windows wherein, the species specific neurological development requires the appropriate and timely environmental stimulation to map language into perceptual auditory structures and thereby stimulate the formation of dedicated neurological language and eventual reading connections.

It seems quite obvious, at least in terms of developmental language and reading research, that the most propitious time to intervene in the language/reading development is when it is actively developing. Furthermore, logic would suggest that the further the language/reading intervention is developmentally downstream from the optimal intervention window, the more difficult and less effective the intervention will be. Some would say that once the developmental window is closed, the success of the intervention is inversely related to the developmental distance it is away from the optimum intervention point i.e., the intervention has less impact as the child develops and makes adaptations to the language deficits in terms of personalized reading strategies. This seems to be reasonable given the fact that when a child reaches the third grade without achieving at least low average reading skills, the child is much more likely to not achieve good reading skills than of achieving good reading skills.

When children enter junior high school reading at the second, third or fourth grade level they bring a legacy of failure; an adapted behavior style that allows them to survive but not develop academically, and one that is generally disruptive in its presentation; a reading and writing style that has been idiosyncratically crafted for survival in a hostile environment, and is generally impervious to less than adequate reading interventions that are too little and too late developmentally; and an overall junior high school program that is unprepared, and in many instances, unwilling to teach basic skills. Basic skills is not the training of most junior high school teachers and many of them are personally affronted by

the idea that they should be required to teach basic skills; they want to teach and be witness to a higher level of cognitive and academic functioning.

Junior high school is not the venue to teach basic reading and writing skills. First, because according to some, the language window is closed and secondly, because the mentality of the junior high curricula and it teachers are not prepared to teach basic written language and reading skills. And, as stated earlier, special educators are not trained to cope with the kind of reading difficulties these junior high school students present with. Furthermore, in the writer's school, as well as in many other junior high schools, special education has become a support group for content area remediation. Special education has not chosen this role but rather they have had it defined for them by the junior high administrators, as well as by regular education teachers, who believe this is a valid function of special education. The writer has no argument with this function except that helping students complete their homework in content areas does not deal with the very basic problems these students present with. They cannot read nor write and supporting them in the content areas is not going to change this fact.

Recommendations

So.....what to do? It would seem that the present practicum is not the answer, but there is much here that is important to any reading remediation program. The writer has no argument with the language based approach to reading remediation nor the very important part that CBM brings to any reading intervention program. However, the writer was most disappointed with the ineffectual home portion of the remediation program. It continues to be the belief of the writer that it is a very necessary portion of the triad, with the other two being the language piece and the measurement piece. However, a fourth piece needs to be added into the remedial equation. Junior high school teachers and administrators need to be made aware that a more valid function of special education is basic reading and writing instruction and not simply support in the content areas.

Bringing building administrators and regular education teachers on board is a formidable task. There are many impediments to this process. It is a subject that could easily be valid a practicum problem in and of itself. There are so many moveable parts and variables to consider to affect this kind of change, even at the building level, as to be almost on the same level of difficulty as the very formidable task of teaching the reading resistant student literate reading skills. However, until educators become more understanding and respectful of the fidelity of an empirically defined measure of basic skills that represents valid and reliable measures of student performance, bringing educational change from the bottom up will continue to be a very difficult proposition, and represents a fierce stumbling block for the would be change agent.

However, given the support of the teachers and the building principal the writer would recommend a much more aggressive reading intervention program. The first phase would be the identification of the resistant students in the spring of their six grade year prior to entering the seventh grade at the junior high school. The intervention program would be three years in length. It would span their entire junior high program or until they could demonstrate reading skills at least at the 25th percentile on CBM measures when compared to their building peers. Secondly, the parent would be sent a letter in the spring of their student's sixth grade year. The letter would simply state that their child had been selected to attend a reading and writing program at the junior high school, and furthermore, inclusion into the program would require a two hour commitment from the student's parent or guardian one time per month for the next three years, or until the student reached the peer defined 25th percentile.

The reading and writing interventions would be carefully selected to insure high interest, as much as that is possible. This caliber of student has been effectively denied an education by an educational system that has in all sincerity attempted to educate them. Sincerity is a wonderful and necessary human emotion. It is an emotion that is necessary to but certainly not sufficient to educate these students. These students are desperate, and

system's inability to deal with the problem; they seek to measure the internal and compare it with other children on criterion relevant indices. However, CBM within the context of the Problem-Solving Model (Deno, 1989), is designed to investigate and measure the nature of the child's response to instructional intervention thereby externalizing the problem. With such a tool the responsibility for reading and writing progress is focused on the efficacy of the interventions and not on the lack of progress due to an internal "reading deficit" that there is little hope of understanding or remediating from the inside out. The problem must be externalized if it is hoped to be solved, and the responsibility for solving the problem must reside with the interventionist and not with the student.

At the junior high level there is no choice in the quality of readers received from the elementary schools. There is no control over their primary reading readiness programs. The problem would be much different if education at all levels understood the nature of reading, to the extent that it can be presently understood. And furthermore, if education had a learning organization mentality that provided for systemic changes as a function empirically validated by best practices, instead of the status quo, top down, bureaucratically defined institutions that are paradoxically constantly changing, yet remaining the same, then the resistant readers at all levels would be significantly less resistant.

As a direct result of this practicum the writer has come to the very sad conclusion that education, in its present state, does not have the capacity to significantly upgrade the reading and writing skills of the resistant reader. There are just too many systemic problems that public education is unable to change. The system is not designed for change. It cannot be changed from the outside to wit: special education's federally mandated changes have only served to distract teachers from their teaching. It cannot be changed from the inside as there is no systemic vehicle or learning organization for internal change.

As a result of this practicum and the Nova experience, the writer will move his efforts in two directions. The writer will take his message directly to the consumer i.e., the parents of special needs children. And the writer will attempt to bring changes to his work

program will be offered to the junior high building who meets the conditions of the writer for inclusion. The writer wants to set up a "have funds, will travel" program scenario. The writer must have reasonable autonomy to direct the program to produce success and protect the program form administrative "tinkering."

As stated above, the writer will take this reading and measurement message directly to the parents. This will done within an in service instructional format. It is hoped that if enough frustrated parents learn the power of measurement, particularly where it relates program accountability, there will be a great pressure from outside of the system to create impetus inside of the system for change that is based on empiricism that makes sense for students, teachers, and administers alike.

Dissemination

The writer has been vigorously debating the merits of language, reading, and measurement with his colleagues and whomever else will listen. It is the writer's belief that the concepts discussed in this practicum are important, practical, and difficult to understand at first encounter in terms of the depth of their implications. It would seem that if their implications were obvious, they would have been generally implemented some time ago, as much of the research and validity on language, reading, and measurement was done in the 1970's and 1980's. Yet there is little evidence to suggest that teachers use this kind of information in their teaching practice, particularly special education teachers, where this kind of information would be most useful.

A major part of the problem is that without a sensitive measurement system set in place, there is no frame of reference to tell the teachers if what they are doing with any particular reading intervention has educational value for the specific student. Secondly, there are very few teacher training programs to provide in-service training programs for those special education teachers who find themselves teaching reading to students who have great difficulties learning their alphabet and/or sounds in the first, second or third grade. Or for those junior high school special education teachers whose students are

reading at the second, third, or fourth grade level. Therefore, it shall be the responsibility of this practicum to develop a language based reading in-service training program with a large CBM component. This class will be designed for special education teachers in the writer's school district and will be offered for credit through a local university wherein the school district has a long term working relationship of this nature. The director of special education has agreed to this project for 1999-2000 academic year. Depending on how well the information is received, several more workshops will be planned.

References

Aaron, P. G. & Joshi, R. M. (1992). Reading problems: Consultation and remediation. New York: The Guilford Press.

Adams, M. J. (1990). Beginning to read: Thinking about print. Cambridge: MIT Press.

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, D. C.

Amen, D. J. (1994). New directions in the theory, diagnosis and treatment of mental disorders. The use of spect imaging in everyday clinical practice. In C. Stout, L. Koziol, & C.C. Thomas (Eds.), The neuropsychology of mental disorders. Springfield, Illinois.

Arlin, P. (1981). Piagetian tasks as predictors of reading and math readiness Grades K-1. Journal of Educational Psychology, 73, 712-721. In M.J. Adams Beginning to read: Thinking and learning about print. (57-60). Cambridge: MIT Press.

Aukerman, R. C. (1971). Approaches to beginning reading. New York: Wiley. In M.J. Adams Beginning to read: Thinking and learning about print. (51-53). Cambridge: MIT Press.

Aukerman, R. C. (1984). Approaches to beginning reading (2nd ed.). New York: Wiley. In M.J.

Begley, S. (1996, February 19). Your child's brain. Newsweek, 55-58.

Bond, G.L. & Dykstra, R. (1967). Reading Research Quarterly, 2, 5-142. In M.J. Adams Beginning to read: Thinking and learning about print.(40-44). Cambridge: MIT Press.

Bowers, P. G., Steffy, R. & Tate, E. (1988). Comparison of the effects of IQ. control methods on memory and naming speed predictors of reading disability. Reading Research Quarterly, 23, 304-319.

Brown, A. L. & Campione, J. C. (1994). Models and practices of dynamic assessment. In G. P. Wallach & K. G. Butler, (Eds.), Language learning disabilities in school-age children and adolescents: Some principles (pp. 132-144). New York: Macmillan.

Catts, H. W. (1989a). Defining dyslexia as a developmental language disorder. Annals of Dyslexia, 39, 50-64.

Catts, H. W. (1989b). Phonological processing deficits and reading disabilities. In A. G. Kamhi & H. W. Catts, (Eds.), Reading disabilities: A developmental language perspective (pp. 101-132). Boston, MA: College-Hill Press.

Caine, R. N. & Caine, G. (1991). Making connections: teaching and the human brain. Addison-Wesley: New York.

Chall, J. S. (1967). Learning to read: The great debate. New York: McGraw-Hill.

Chall, J. S. (1983a). Learning to read: The great debate. Updated ed. New York: McGraw-Hill.

Chall, J. S. 1983b). Stages of reading development. New York: McGraw-Hill.

Chall, J. S., Jacobs, V Baldwin (1990). The reading crisis: Why poor children fall behind. Cambridge: Harvard University Press.

Conners, K. C. (1989). Feeding the brain: How food affects children. New York: Plenum Press.

Csiksentmihalyi, M. (1990). Flow: the psychology of optimal experience. New York: Harper Perrennial.

Diamond, M. & Hopson, J. (1998). Magic trees of the mind. New York: Dutton.

Deno, S. L. (1989). Curriculum-based measurement and special education services: A fundamental and direct relationship. In Mark R. Shinn (Eds.), Curriculum based measurement: Assessing special education children (pp. 1-17). New York: The Guilford Press.

Deno, S. L., Mirkin, P. & Chiang, B. (1982). Identifying valid measures of reading. Exceptional Children, 49, 35-45.

Fountas, I. C. & Pinnell, G. (1996). Guided reading: Good first teaching for all children. Portsmouth, NH: Heinemann.

Frith, U. (1986). A developmental framework for the development of dyslexia. Annals of Dyslexia, 36, 69-81.

Fuchs, L. S., Deno, S. L. & Mirkin, P. K. (1984). The effects of frequent curriculum-based measurement and evaluation of pedagogy, student achievement, and student awareness of learning. American Educational Research Journal, 21, 449-460.

Fuchs, L. S., Fuchs, D. (1986). Effects of systematic formative evaluation: A meta-analysis. Exceptional Children, 53, 199-208.

Fuchs, L.S., Fuchs, D. & Maxwell, L. (1988). The validity of informal reading comprehension measures. Remedial and Special Education, 9, 20-28.

Goleman, D. (1995). Emotional intelligence: Why it can matter more than IQ. New York: Bantam Books.

Gardner, H. (1985). Frames of mind: The theory of multiple intelligences. New York: Basic Books.

Gardner, M. F. (1991). Receptive one-word picture vocabulary test-revised, Austin: TX: Pro-Ed.

Goldsworthy, C. L. (1996). Developmental reading disabilities: A language based treatment approach. San Diego: Singular Publishing Group, Inc.

Gough, P. B. & Juel, C. (1991). The first stages of word recognition. In C.L. Goldsworthy, Developmental reading disabilities: A language based treatment approach. San Diego: Singular Publishing Group, Inc.

Hammill, D. D. & Larson, S. C. (1994). Test of written language-3, TX Pro-Ed.

Hancock, L. (1996, February, 19th). Why do schools flunk biology. Newsweek, 58-62.

Hansen, V. L. (1989). Phonology and reading: Evidence from profoundly deaf readers. In D. Shankweiler & I. Y. Liberman (Eds.) Phonology and reading disability: Solving the reading puzzle (pp. 69-90) Ann Arbor: University of Michigan Press.

Healy, J. M. (1990). Endangered minds. New York: Simon & Schuster.

Hindley, J. (1996). In the company of children. York: ME: Stenhouse.

Hoien, T., Lundberg, I., Stanovich, K.E. & Inger-Kristin, B. (1995). Components of phonological awareness. Reading and Writing: An Interdisciplinary Journal, 7, 171-188.

Holdaway, D. (1979). The foundations of literacy. New York: Ashton Scholastic.

Houtz, J. & Searcey, D. (1998, February 15). A battle over the abc's. The Seattle Times, pp. A1, A 12-13.

Howell, K.W., Fox, S. L. & Morehead, M. K.(1993). Curriculum-based evaluation: Teaching and decision making (2nd.ed.) Belmont, CA: Brooks/Cole.

Kotulak, R. (1996). Inside the brain: Revolutionary discoveries of how the mind works. Kansas City: Andrews McMeel Publishing

Kuhl, P. (1996 as cited in Newsweek, February 19). Your child's brain, pp. 55-58.

Livesay, Y. (1995). Dyslexia and reading instruction: Presented to California educators, legislators and advocates. Answers, I, 1-8.

Marston, B. (1989). Curriculum-based measure: What is and why do it? In M.R. Shinn (Ed.), Curriculum-based measurement: Assessing special children (pp. 18-78). New York: Guilford Press.

McCabe, A. & Rollins, P.R. (1994). Assessment of preschool narrative skills. American Journal of Speech-Language Pathology, 3, 46-56.

Marston, D. & Deno, S. L. (1982). Implementation of direct and repeated measurement in the school setting (106). Minneapolis: University of Minnesota Institute for Research on Learning Disabilities.

McGill-Franzen, A. (1992). Early literacy: what does "developmentally appropriate mean?" The Reading Teacher, 46, 56-58.

Morrison, F. J. (1991). Learning (and not learning to read): A developmental framework. In L. Rieben & C.A. Perfetti (Eds) Learning to read: Basic research and its implications (pp. 163-174). Hillsdale, N.J.: Lawrence Erlbaum.

Nash, J. M. (1957). Fertile minds, Time, 149 (5),48-56.

Nelson, N. W. (1994). Curriculum-based language assessment and intervention across the grades. In G. P. Wallach & K. G. Butler (Eds.), Language learning disabilities in school-age children and adolescents: Some principles (pp. 104-131). New York: Macmillan.

Ornstein, R. & Sobel, D. (1987). The healing brain: Breakthrough discoveries about how the brain keeps us healthy. New York: Simon & Schuster.

Orton Dyslexia Society Research Committee and National Institute of Health. (1994). Definition of dyslexia. Perspectives, 20, 4.

Orton, J. (1968). Treatment needs of the child with developmental dyslexia. In A. H. Keeney & V. T. (Eds.), Dyslexia, diagnosis and treatment of reading disorders (pp. 131-136). St. Louis, MO: C.V. Mosby.

Paterson, K. (1972). Bridge to terabithia. New York: Harper Trophy.

Pflaum, S.W., Walberg, H. J., Karegianes, M. L., & Rasher, S.P. (1980). Reading instruction: A quantitative analysis. Educational Researcher, 9, 12-18. In M.J. Adams Beginning to read: Thinking and learning about print. (46-50). Cambridge: MIT Press.

Piaget, J. (1970). Science of education and the psychology of the child. New York: Orin Press.

Possin, C., Schwarz, J. & Stockdale, C. (1994). Another door to learning. Tacoma WA: Another Door Press.

Reid, D. K., Hreskio, W. P. & Hammill, D. D. (1991). Test of early reading -2, Austin, TX: Pro-Ed.

Rees, D. (1994). First steps: Reading developmental continuum. Portsmouth, NH: Heinemann.

Rosner, (1979). Modified (expanded) version of the Rosner test of auditory analysis skills. In V. Berninger, S. Thalberg, I. DeBruyn & R. Smith: Preventing reading difficulties by assessing and remediating phonemic skills. School Psychology Review, 16, 554-555.

Routman, R. (1996). Literacy at the crossroads. Portsmouth, NH, Heinemann.

Sawyer, D. J. (1992). Language abilities, reading acquisition, and developmental dyslexia: A discussion of hypothetical and observed relationships. Journal of Learning Disabilities, 25, 82-95.

Selenberg, M. S. & McClelland, J. L. (1989). A distributed, developmental model of word recognition and naming. Psychological Review. In M.J. Adams Beginning to read: Thinking and learning about print. (55-57). Cambridge: MIT Press.

Semel, E. Wiig, E. H.& Secord, W. (1995). Clinical evaluation of language fundamentals-3. San Antonio, TX: The Psychological Corporation.

Senge, P. M. (1990). The fifth discipline: The art & practice of the learning organization. New York: Currency Doubleday

Shinn, M.R. (1988). Development of curriculum-based norms for use in special education decision-making. School Psychology Review, 17, 61-80.

Shinn, M. R. (1989). Curriculum-based measurement: assessing special education children. New York: Guilford Press.

Shinn, M. R., Good, R.H. lll, Knutson, N., Tilly, W.D. lll & Collins, V. L. (1992). Curriculum-based measurement of oral reading fluency: A confirmatory analysis of its relation to reading. School psychology review 21, No.3, 459-479.

Stahl, S. S., Osborn, J., & Lehr, F. (1990). Beginning to read: Thinking and learning about print. A summary. Center for the study of reading, research and education. University of Illinois at Urbana-Champaign.

Stannovich, K. E. (1988). Explaining the differences between the dyslexic and the garden-variety poor reader: The phonological-core variable-difference model. Journal of Learning Disabilities, 21, 590-504.

Stiggins R. J. (1997) Student-centered classroom assessment. Upper Saddle River, NJ: Prentice Hall.

Suplee, C. (1998, March, 8). Clue to dyslexia found. The Washington Post, p. AO1.

Swank, L. K. (1994). Phonological coding abilities: Identification of impairments related to phonological based reading problems. Topics in Language Disorders, 14, 56-71.

Swank, L. K. & Catts, H. W. (1994). Phonological awareness and written word decoding. Language, Speech, and Hearing Services in the Schools, 25, 9-14.

Sylweater, R. (1995). A Celebration of neurons: An educators guide to the human brain. Alexandria, VA: ASCD.

Thomas, R. M. (1996). Comparing theories of child development. New York: Brooks/Cole Publishing Company.

van Kleeck, A. (1990) Emergent literacy: Learning about print before learning to read. Topics in Language Disorders 10, (2), 25-43.

van Kleeck, A. (1994). Metalinguistic skills: Cutting across spoken and written language and problem-solving abilities. In G. P. Wallach & K. G. Butler (Eds.), Language learning disabilities in school-age children (pp. 128-153). Baltimore, MD: Williams & Wilkins.

Vellutino, F. R. (1993, November). What speech and language can do to facilitate assessment of reading difficulties. Presented at the annual convention of the American Speech-Language-Hearing Association, Anheim. (as cited in C. L. Goldsworthy, 1996).

Wallach, G. P. & Butler, K. G. (1994). Creating communication, literacy, and academic success. In G. P. Wallach & K. G. Butler (Eds.), Language learning disabilities in school age children (pp 2-26). Baltimore, MD: Williams & Wilkins.

Wallach, G P., & Miller, L. (1988). Language intervention and academic success. San Diego, CA: College-Hill Press.

Wechsler, D. (1991). Wechsler intelligence scale for children, (3 ed.). New York: Harcourt Brace Jovanovick, Inc.

Woodcock, R.W. (1987). Woodcock reading mastery test revised. Circle Pines, MN: American Guidance Corp.

Woodcock, R. W. (1991). Woodcock language proficiency battery-revised. Allen, TX: DLM Teaching Resources.

Woodcock, R.W. & Matter, N. (1989). Woodcock-Johnson psycho-educational battery-revised. Allen, TX: DLM Teaching Resources.

Wright, S. F. & Groner (1993). Introduction. In S. F. Wright & R. Groner (Eds.), Facets of dyslexia and its remediation (pp xiv-xxiii), Amsterdam, The Netherlands: Elsevier.

Zametkin, A.J. (1991, Spring/Summer). The neurobiology of attention-deficit hyperactivity disorder. Ch.a.d.d.er, 10-11.

APPENDIX A
CLASSROOM LANGUAGE RATING SCALE

LANGUAGE/READING/WRITING RATING SCALE FOR TEACHERS

1. The student is grade appropriate in his/her classroom language skills.

strongly agree agree somewhat agree disagree strongly disagree

2. The student can do grade level reading well enough to function in the regular classroom with normal teacher assistance.

strongly agree agree somewhat agree disagree strongly disagree

3. The student can do grade level reading well enough to function in the regular classroom with inordinate teacher assistance.

strongly agree agree somewhat agree disagree strongly disagree

4. The student enjoys reading and does so willingly.

strongly agree agree somewhat agree disagree strongly disagree

The student is reluctant to read and avoids doing so.

strongly agree agree somewhat agree disagree strongly disagree

5. The student can do grade level written language well enough to function in the regular classroom with normal teacher assistance.

strongly agree agree somewhat agree disagree strongly disagree

6. The student can use written language well enough to function in the regular classroom with inordinate teacher assistance.

strongly agree agree somewhat agree disagree strongly disagree

7. The student enjoys writing and does so willingly.

strongly agree agree somewhat agree disagree strongly disagree

8. The student is reluctant to write and avoids doing so.

strongly agree agree somewhat agree disagree strongly disagree

9. The student is between the _____ and _____ percentile when compared to his peers.

1st & 10th 11th& 19th 20th & 29th 30th & 35 36th

10. Student's rate of academic growth is faster than his peers.

strongly agree agree somewhat agree disagree strongly disagree

11. Student's rate of growth is slower than his peers.

strongly agree agree somewhat agree disagree strongly disagree

12. The student can read most written grade level directions independently.

strongly agree agree somewhat agree disagree strongly disagree

APPENDIX B
PARENT/CAREGIVER RATING SCALE TO ASSESS PERCEPTIONS OF THEIR CHILDREN'S READING SKILLS

PARENT/CAREGIVERS RATING SCALE
TO ASSESS READING GROWTH

1. I see my child as a less than an average reader.

strongly agree agree somewhat agree disagree strongly disagree

2. I rank my child some where in the middle of his classmates in terms of his/her reading skills.

strongly agree agree somewhat agree disagree strongly disagree

3. My child enjoys reading and does willing.

strongly agree agree somewhat agree disagree strongly disagree

My child is reluctant to read and avoids doing so.

strongly agree agree somewhat agree disagree strongly disagree

4. I see my child as having the reading skills to function, with minimal teacher assistance, in the regular classroom.

strongly agree agree somewhat agree disagree strongly disagree

5. I see my child making much less reading progress than his classmates.

strongly agree agree somewhat agree disagree strongly disagree

6. I see my child as having the writing skills to function, with minimal teacher assistance, in the regular classroom.

strongly agree agree somewhat agree disagree strongly disagree

7. I see my child making much less writing progress than his classmates.

strongly agree agree somewhat agree disagree strongly disagree

8. My child enjoys writing as does so willingly.

strongly agree agree somewhat agree disagree strongly disagree

9. My child is reluctant to write and avoids doing so.

strongly agree agree somewhat agree disagree strongly disagree

10. My child has does not know of his/her letters and sounds smoothly and flawlessly.

strongly agree agree somewhat agree disagree strongly disagree

11. My child has little understanding of the nature and purpose of punctuation.

strongly agree agree somewhat agree disagree strongly disagree

APPENDIX C
AT RISK QUESTIONNAIRE

RATING SCALE FOR CHILDREN AT RISK FOR SCHOOL FAILURE

1. Teachers see this child as at risk for school failure.

strongly agree agree somewhat agree disagree strongly disagree

2. Parents/caregivers see their children as at risk for school.

strongly agree agree somewhat agree disagree strongly disagree

3. Parent/caregivers are concerned that their child will not be successful at his/her next grade without the assistance of special education or a learning assistance program.

strongly agree agree somewhat agree disagree strongly disagree

4. Teachers are concerned that their student will not be successful at his/her next grade. without the assistance of special education or a learning assistance program.

strongly agree agree somewhat agree disagree strongly disagree

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